RESUME: PROF JP MEYER

Prof Josua Meyer, was in 2002, appointed at the University of Pretoria as professor, and Head of Mechanical and Aeronautical Engineering (1 900 students), and in 2004 Chair of the School of Engineering (7 000 students) until 2020.

He is leading the Clean Energy Research unit that he established with a broad focus on thermal sciences and fluid flow, but with a narrower focus on heat exchangers. His heat exchanger work focused on fundamental work of flow in the transitional flow regime, nanofluids, boiling, and condensation. On an applications level his work focus on thermal-solar-, wind- and nuclear energy. He has grown this research group to approximately 30 full-time graduate students and 10 staff members. During this time he also established various labs with state-of-the-art instrumentation and designed and constructed (with his group members) more than 12 unique experimental set-ups.

He has received 11 different national teaching awards from three different universities, as well as an international award. His videos on heat transfer on YouTube has been watched more than 1.7 million times. He has won more than 43 research awards including 33 awards for best article of the year or best conference paper. International/national awards were given to 12 of his postgraduate students for the quality of their work under his supervision.

For his research he has won the following national and international awards: Thomas Price Award, Rand Coal Award, South African Institute of Mechanical Engineers Medal, LT Campbell-Pitt Award, Literati Award, Chairman's Award of the South African Institute of Air-conditioning and Refrigeration, and Will Stoecker award. He is a member or fellow of various professional institutes and societies such as ASME, ASHRAE, AIAA, and the Royal Aeronautical Society. He is at present the vice president of the Assembly for International Heat Transfer Conferences. In 2020 he won the National Science and Technology Forum award for developing large numbers of engineering research graduates of the highest quality.

In 2016, he won the University of Pretoria "Exceptional Achiever Award" for the fifth time and he also won the Vice Chancellor's Exceptional Supervisor Award in recognition of exceptional achievement in supervision for his high quality work as a supervisor/advisor of graduate students. In 2019 he won the Chancellor's Award for Research for sustained excellent performance, in recognition of exceptional achievement in research and the associated promotion of the University of Pretoria. He is an A-rated NRF (National Research Foundation) researcher. The NRF rating are allocated based on a researcher's recent research outputs and impact as perceived by national and international peer reviewers. A-rated researchers are unequivocally recognised by their peers as leading international scholars in their respective fields, for the high quality and impact of recent research outputs.

His is a "highly cited researcher" according to the ISI, and ranked among the top 0.1% in engineering. He is on the editorial board of 13 journals and is editor of 7 journals in his field of research. He has (co)authored more than 800 articles, conference papers, book chapters, and patents and has (co)supervised more than 150 research masters and PhD students. He was on the selection committee of the Franklin Institute Awards Programme (one of the world's oldest (since 1824)) for the Benjamin Franklin Medal. To date, 117 awards of this institute have been honoured with Nobel prizes.

UNIVERSITY OF PRETORIA

Revision date: 17 December 2021

1. BIOGRAPHICAL SKETCH

1.1 GENERAL INFORMATION

Surname	MEYER	**First names**		Josua Petrus			
Citizenship	South Africa	**Title**	Prof	**Female**		**Male**	X
Department	Mechanical and Aeronautical Engineering University of Pretoria	**Position**		Head of the Department of Mechanical and Aeronautical Engineering			
Direct Telephone	(012) 420 3104	**Fax**		(012) 362 5124			
E-mail	josua.meyer@up.ac.za; josua7meyer@gmail.com						
Date of appointment	1 July 2002	**Permanent full-time**		X	**Temporary full-time**		

1.2 ACADEMIC QUALIFICATIONS OBTAINED

Degree/ Diploma	Field of study	Higher education institution	Year	Distinctions
BEng	Mechanical Engineering	University of Pretoria	1984	Cum Laude
MEng	Mechanical Engineering	University of Pretoria	1986	Cum Laude
PhD	Mechanical Engineering	University of Pretoria	1988	Not applicable

1.3 PROFESSIONAL REGISTRATION

PrEng	Professional registration as professional engineer (880217)	ECSA (Engineering Council of South Africa)	1988

1.4 SPECIALIZED COURSES

Duration	Topic	Institution	Year
10 weeks	Leadership	All Learn (Online learning consortium between Oxford, Stanford and Yale)	2004
3 days	Leadership Programme	University of Pretoria Gordon Institute of Business Science (GIBBS)	2006
5 days	Fundamentals of Microscale Heat Transfer	EPFL (Ecole Polytecnique Fédérale de Lausanne)	2011

1.5 WORK EXPERIENCE TO DATE

Name of employer	Capacity and/or type of work	Period
City Council of Pretoria	Bus driver	1978/01/01 to 1979/12/31
University of Pretoria	Undergraduate student	1979/01/01 to 1983/12/31
Laboratory for Advanced Engineering (LGI)	Associate	1984/01/01 to 1987/12/31
SADF and Compuflow	Lieutenant in the South African Air Force and consultant respectively	1988/02/01 to 1989/12/31
North-West University	Associate professor	1990/01/01 to 1990/12/31
North-West University	Professor	1991/01/01 to 1993/12/30
North-West University	Acting Head of Department	1993/01/01 to 1993/12/30
M-Tech, M-Tech Mechanical, MTech Software, Enerflow, Fabco, EPS, Cooling and Heating Technologies, and Randtech	Director, member, founder and/or CEO of a number of consulting engineering, manufacturing and software companies	1990/01/01 to 2002/06/30
University of Johannesburg	Professor	1994/10/01 to 2002/06/30
University of Johannesburg	Chairman (Head) Laboratory for Energy	1998/01/01 to 2002/06/30
University of Johannesburg	Chairman (Head): Department of Mechanical Engineering	1999/01/01 to 2002/06/30

University of Pretoria	**Professor**	**2002/07/01 to present**
University of Pretoria	**Head: Department of Mechanical and Aeronautical Engineering**	**2002/07/01 to 2006/12/31 (first term)** **2007/01/01 to 2011/06/30 (second term)** **2011/07/01 to 2015/06/30 (third term)** **2015/07/01 to 2019/06/30 (fourth term)** **2019/07/01 to 2023/06/30 (fifth term)**
University of Pretoria	**Chair: School of Engineering**	**2004/01/01 to 2007/12/31 (first term)** **2008/01/01 to 2011/12/31 (second term)** **2012/01/01 to 2016/03/31 (third term)** **2016/04/01 to 2020/03/31 (fourth term)** **2020/04/01 to 2020/07/31 (acting)**
University of Pretoria	**Director: Advanced Engineering Centre of Excellence**	**2008/01/01 to 2013/12/31**

PREPARATORY PROFESSIONAL EXPERIENCE BEFORE ACADEMIC CAREER

Laboratory for Advanced Engineering (LGI)
Project work on a consultation basis to industry, mainly in finite elements and computational fluid dynamics.

SADF and Compuflow
On completion of my academic studies, I was conscripted into the South African Defence Force for two years (1988 – 1999). I was selected for officers' training for three months. I was appointed as a commissioned officer with the rank of lieutenant in the South African Air Force at the Faculty of Military Science at the University of Stellenbosch in Saldanha. My main task was to teach aerodynamics and fluid mechanics to air-force pilots and navigators, and this occupied me for approximately 20 hours per week. For the rest of the time, I was a partner in a company (Compuflow together with Dr Hardus van Zyl) through which I did consultation work in computational fluid dynamics.

2. TEACHING ACTIVITIES

2.1 Courses presented

Course	**Level** *(e.g. second year, Masters)*	**Self developed** *(Yes or No)*
Aerodynamics (four times)	4th year	Yes
Fluid Mechanics (six times)	3rd year	Yes
Compressible Fluid Mechanics (four times)	4th year	Yes
Thermodynamics (11 times)	2nd year	Yes
Heat Transfer (19 times)	4th year	Yes
Air-conditioning and Refrigeration (four times)	4th year	Yes

Gas Dynamics (twice)	Postgraduate level	Yes
Computational Fluid Dynamics (twice)	Postgraduate level	Yes
Advanced Thermodynamics (three times)	Postgraduate level	Yes
Advanced Fluid Mechanics (four times)	Postgraduate level	Yes
Advanced Heat Transfer (12 times)	Postgraduate level	Yes
Advanced Air Conditioning and Refrigeration (six times)	Postgraduate level	Yes

EXTERNAL EXAMINER (1995 - the present)

Year	Course	University
1995	Thermodynamics MECN417 (Prof CJ Rallis)	University of the Witwatersrand
1995	3 Final year projects (Prof GP Greyvenstein)	North-West University
1995	Industrial Energy Management (Prof N Tully)	University of the Witwatersrand
1996	Thermodynamics MECN417 (Prof CJ Rallis)	University of the Witwatersrand
1996	6 Final year projects (Prof TJ Sheer & Prof EA Moss)	University of the Witwatersrand
1996	Advanced Thermo systems (postgraduate level) (Prof PG Rousseau)	North-West University
1997	Industrial Energy Management (Prof N Tully)	University of the Witwatersrand
1997	Thermodynamics MECN417 (Prof CJ Rallis)	University of the Witwatersrand
1997	3 Final year projects (Prof CJ Rallis)	University of the Witwatersrand
1997	4 Final year projects MEG426 (Prof GP Greyvenstein)	North-West University
1997	Selected topics in refrigeration (postgraduate level)	University of the Witwatersrand
1998	Heat and mass transfer (Prof N Tully)	University of the Witwatersrand
1998	Fluid Dynamics (Prof T Moss)	University of the Witwatersrand
1999	Fluid Dynamics (Prof P Rousseau)	North-West University
1999	Thermodynamics (Prof CJ Rallis)	University of the Witwatersrand
1999	Heat Transfer (Prof N Tully)	University of the Witwatersrand
1999	Fluid Dynamics (Dr HJWP Neomagus)	North-West University
1999	Final year project (Prof N Tully)	University of the Witwatersrand
2000	Advanced Thermo systems (Prof PG Rousseau)	North-West University
2000	Momentum transfer (Prof HJWP Neomagus)	North-West University
2000	Fluid Dynamics (Prof CJ Rallis)	University of the Witwatersrand
2001	Advanced Thermo systems (Prof PG Rousseau)	North-West University
2001	Momentum transfer CEM312 (Prof HJWP Neomagus)	North-West University
2002	Advanced Thermo systems (Prof PG Rousseau)	North-West University
2002	Fluid Machines 414, Fluid Mechanics A314, Fluid Mechanics B344, Heat Transfer 414, Thermodynamics B344 and Thermodynamics A244	University of Stellenbosch
2002	Thermo Systems TML4	University of Johannesburg
2002	Momentum transfer CEM312 (Prof HJWP Neomagus)	North-West University
2002	Momentum transfer CEM312 (Prof HJWP Neomagus)	North-West University
2003	Momentum transfer CEM312 (Prof HJWP Neomagus)	North-West University
2004	Heat Transfer 4A (Ms LC Coblentz)	University of Johannesburg
2004	Momentum transfer CEM312 (Prof HJWP Neomagus)	North-West University
2005	Momentum transfer CEM312 (Prof HJWP Neomagus)	North-West University
2006	Heat Transfer 4A (Prof A Nurick)	University of Johannesburg
2006	Momentum transfer CEMI311 (Prof HJWP Neomagus)	North-West University
2007	Military Technology 312/322/342 and 352 (Major J Geldenhuys	Military Academy University of Stellenbosch
2007	Thermodynamics 3 ENME4TD (Prof S Govender)	University of Kwa-Zulu Natal
2007	Design Project ENME4DP (Prof S Govender)	University of Kwa-Zulu Natal
2007	Heat Transfer 4A (Prof A Nurick)	University of Johannesburg
2007	Momentum transfer CEM312 (Prof HJWP Neomagus)	North-West University

2007	Aircraft Mechanics 342 (Major J Geldenhuys)	Military Academy University of Stellenbosch
2007	Design & Research Projects	University of Kwazulu-Natal
2007	Aircraft Mechanics 342 (Major J Geldenhuys)	Military Academy, University of Stellenbosch
2008	Heat transfer 4A (Prof A Nurick)	University of Johannesburg
2008	Momentum transfer CEM312 (Prof HJWP Neomagus)	North-West University
2009	Momentum transfer CEMI311 (BB Hattingh)	North-West University
2009	Military Technology 312 (Lt. Col HJ Geldenhuys)	Military Academy, University of Stellenbosch
2009	Gas Dynamics 322 (Lt. Col HJ Geldenhuys)	Military Academy, University of Stellenbosch
2009	Heat Transfer MEGI412 (Dr M van Eldik)	North-West University
2010	Transport Principles CEMI33 (B Hattingh)	North-West University
2010	Heat Transfer INGM412 (Dr M van Eldik)	North-West University
2010	Thermal-Fluid Systems MGI886 (Dr M van Eldik)	North-West University
2011	Transport Principles CEMI311 (BB Hatingh)	North-West University
2012	Heat Transfer INGM412 (Dr M van Eldik)	North-West University
2014-2016	Several modules	University of Mauritius
2016	Transport Phenomena CEMI311	University of Stellenbosch
2016	Heat Transfer A326 (Dr A Chimphango)	University of Stellenbosch
2017	Heat Transfer A326 (Dr A Chimphango)	University of Stellenbosch

RESEARCH

Personal research and supervision of students

Originally, my teaching and research interests were in computational fluid dynamics. During the period 1993 to 1994 it shifted to experimental thermal/fluid sciences with specific application to air-conditioning and refrigeration systems. To make this possible, I started specialising in fluid mechanics, thermodynamics and heat transfer - the main building blocks that have to be integrated for developing new refrigeration and air-conditioning systems. The emphasis of my research at present is on enhanced heat transfer, convection heat transfer, and condensation heat transfer.

POSTGRADUATE SUPERVISION AND CO-SUPERVISION

Student name	Year	**Title**	**Degree**
WM Marx	1993	Minimizing of pressure losses in a fan drift-mine shaft intersection, using computational fluid dynamics	MEng
MP van Staden	1994	Development of an airflow model for a Lethabo steam boiler making use of computational fluid dynamics	MEng
F de V Arnoldi	1994	Simulation and performance tests of a water-to-water heat pump	MEng
DR de Basson	1994	Control strategy for optimal energy consumption at South African Universities and Technikons	PhD
MC Bekker	1995	Separation of solid-liquid suspensions with acoustic energy	MEng
TM Muya	1996	Hot water consumption in South African developed and developing communities	MEng

FJ Smit	1996	The influence of a non-azeotropic refrigerant mixture on the performance of a hot-water heat pump	MEng
SA Oerder	1996	The performance of a municipal water reticulation, ground-coupled, reversible heat pump	MEng
PPJ Vorster	1998	Wet compression versus dry compression in heat pumps working with pure refrigerants or non-azeotropic mixtures for different heating applications Vice-Chancellor Award (best dissertation)	MEng
W Swanepoel	1998	Wet compression versus dry compression in refrigeration cycles working with pure refrigerants or non-azeotropic mixtures for different cooling applications	MEng
JPM Bukasa	1999	Average boiling heat transfer and pressure drop coefficients of R22/R142b in a helically coiled water heated tube-in-tube heat exchanger	MEng
SA Kebonte	1999	Condensation heat transfer and pressure drop coefficients of R22/R142b in a water-cooled helically coiled tube-in-tube heat exchanger	MEng
CW Wood	1999	Design methodology and experimental verification used to optimize liquid overfeeding effects achieved with heat exchanger accumulators	MEng
R da Veiga	1999	Evaluation of a permanent magnet to decrease scale formation in a tube Vice-Chancellor Award (best dissertation)	MEng
PJ Petit	1999	A steady-state model for the high-pressure side of a unitary air-conditioning	MEng
C Smith	2000	An evaluation of a magnetic physical water treatment device for the prevention of scale fouling in hot-water storage tanks	MEng
S van der Vyver	2000	The design, optimization and experimental verification of an accumulator heat exchanger	MEng
CA de Swardt	2000	A performance comparison between an air-source and a ground-source reversible heat pump	MEng
MP van Staden	2000	An integrated approach to transient simulation of large air-cooled condensers using computational fluid dynamics	PhD
WR da Veiga	2000	Heat transfer coefficient of a snow bag Vice-Chancellor Award (best dissertation)	MEng

H Coetzee	2001	Heat transfer and pressure drop characteristics of angled spiralling tape	MEng
S Coetzee	2001	The development of an experimental set-up to investigate heat transfer enhancement in tube-in-tube heat exchangers Vice-Chancellor Award (best dissertation)	MEng
E Krüger	2001	Comparison between CFD analysis and experimental work on heat exchangers	MEng
Z Shao	2001	Numerical and experimental evaluation of flow through perforated plates	MEng
N Denys	2002	The economic viability of a micro turbine cogeneration system	MEng
J Dirker	2002	Heat transfer coefficients in concentric annuli	M.Eng
L van der Hoek	2002	Data acquisition system for determining heat transfer coefficients in a heat pump	MEng
JPB Bukasa	2002	Heat transfer performance during condensation inside spiralled micro-fin tubes	PhD
W Louw	2002	The influence of annular tube contact in a helical-wound tube-in-tube heat exchanger	MEng
LC Coblentz	2002	Uncertainty analysis in heat exchanger applications	MEng
L Schreuder	2002	Characteristics of a plate heat exchanger under superheated conditions	MEng
AM Maluleke	2002	Optimal control versus conventional control strategies for ice-based thermal storage	M.Eng
JA Olivier	2003	Pressure drop during condensation inside smooth, helical microfin, and herringbone micro-fin tubes Vice-Chancellor Award (best dissertation), S_2A_3 medal by the South African Association for Scientific Achievements	M.Eng
R Da Veiga	2003	Development of a calcium carbonate scale formation experimental set-up for the evaluation of physical water treatment devices	PhD
WR Da Veiga	2003	Characteristics of a semicircular heat exchanger used in a water-heated condenser pump	PhD
L Liebenberg	2003	A unified prediction method for smooth and micro-fin tube condensation performance	Ph.D

FJ Smit	2003	Condensing coefficients of the refrigerant mixture R-22/R-142b in smooth tubes and during enhanced heat transfer configurations	PhD
H Van der Vyver	2003	Heat transfer characteristics of a fractal heat exchanger	PhD
J Bijkersma	2003	Pressure losses at the tubular inlet section of a low temperature differential heat exchanger	MEng
A Lambrechts	2004	Heat transfer performance during condensation inside smooth, micro-fin and herringbone tubes	MEng
D Owaga	2004	Flow patterns during refrigerant condensation in smooth and enhanced tubes Vice-Chancellor Award (best dissertation)	MEng
C Kotzé	2004	Direct contact brine-air heat exchanger characteristics	MEng
J Dirker	2004	Heat-extraction from solid-state electronics by embedded solids with application to integrated power electronics passive modules	PhD
Thianfu Ji	2005	Heat transfer enhancement during condensation in smooth tubes with helical wires inserts	PhD
NDL Burger	2006	Failure analysis of ultra-high molecular weight polyethylene acetabular cups	PhD
J Pattinson	2006	A cut-cell, agglomerated-multigrid accelerated, Cartesian mesh method for compressible and incompressible flow	MEng
M Christians	2007	Flow pattern-based heat transfer and pressure drop correlations for condensing refrigerants in smooth tubes	MEng
E van Rooyen	2007	Time-fractional analysis of flow patterns during refrigerant condensation (SASOL Merit Medal for the best Master's degree)	MEng
CJ Visser	2008	Modelling heat and mass flow through packed pebble beds: A heterogeneous volume-averaged approach	MEng
S Govender	2008	Degree conferred on the basis of publications (36 international journal articles and 19 international conferences). Work was on heat and mass transfer in porous media on binary alloy solidification for both rotating systems and systems subjected to vibration.	DEng
OS Motsamai	2009	Optimization techniques for combustor design	PhD
Botha M	2009	A comparative study of Reynolds-averaged Navier-Stokes and semi-empirical thermal solutions of a gas turbine nozzle guide vane	MEng

Olivier JA	2010	Single-phase heat transfer and pressure drop of water cooled at a constant wall temperature inside horizontal circular smooth and enhanced tubes with different inlet configurations in the transitional flow regime	PhD
Meyers BC	2010	The experimental flowfield and thermal measurements in an experimental can-type gas turbine combustor	MEng
OI Ogunronbi	2011	Maximum heat transfer rate density from a rotating multiscale array of cylinders	MEng
S Schmitt	2011	Contraction heat transfer coefficient correlation for rectangular pin fin heat sinks	MEng
FU Ighalo	2011	Optimisation of microchannels and micropin-fin heat sinks with computational fluid dynamics in combination with a mathematical optimisation algorithm	MEng
Le Roux WG	2011	Maximum net power output from an integrated design of a small-scale open and direct solar thermal Brayton cycle	MEng
Mathebula IS	2012	Friction factor correlations for perforated tubes at low injection rates	MEng
Mowat AGB	2012	Modelling of non-linear aeroelastic systems using a strongly coupled fluid-structure-interaction methodology	MEng
Smith L	2012	An interactive boundary layer modelling methodology for aerodynamic flows	MEng
Rehman S	2012	Wind power resource assessment, design of grid-connected wind farm and hybrid power system	PhD
Suliman R	2012	Development of parallel strongly coupled hybrid fluid-structure interaction technology involving thin geometrically non-liner structures	MEng
Hallquist M	2012	Heat transfer and pressure drop characteristics of smooth tubes at a constant heat flux in the transitional flow regime	MEng
Page LG	2012	Geometric optimization for the maximum heat transfer density rate from cylinders rotating in natural convection	MEng
Kempson WJ	2012	Optimising shaft pressure losses through computational fluid dynamic modelling	PhD
Grote K	2013	The influence of multi-walled carbon nanotubes on single-phase heat transfer and pressure drop characteristics in the transitional flow regime	MEng

Obayopo SO	2013	Performance enhancement in proton exchange membrane fuel cell – numerical modelling and optimisation	PhD
Olakoyejo OT	2013	Geometric optimisation of conjugate heat transfer in cooling channels with different cross-sectional shapes	PhD
Yekoladio PI	2013	Thermodynamic Optimization of Sustainable Energy System: Application to the Optimal Design of Heat Exchangers for Geothermal Power Systems	MEng
Van Zyl WR	2013	Single Phase Convective Heat Transfer and Pressure Drop Coefficients in Concentric Annuli	MEng
Stocks MD	2013	Geometric Optimisation of Heat Transfer in Channels using Newtonian and Non-Newtonian Fluids	MEng
Burger FH	2014	Three dimensional conductive heat spreading layouts obtained using topology optimisation for passive internal electronic cooling	MEng
Garach DV	2014	Heat transfer and pressure drop in microchannels with different inlet conditions for laminar and transitional flow of water	MEng
Jansen E	2014	Thermodydanic optimization of the open-air solar thermal Brayton cycle with fixed temperature constraints	MEng
Everts M	2015	Heat transfer and pressure drop of developing flow in smooth tubes in the transitional flow regime (S2A3 medal by the South African Association of Scientific Achievement for the best masters degree in the fieds of the natural sciences, medicine, and engineering and SASOL Merit Medal for the best Master's degree)	MEng
Koorts JM	2015	Entropy minimisation and structural design for industrial heat exchanger optimisation	MEng
Nolte HC	2015	Analysis and optimisation of a receiver tube for direct steam generation in a solar parabolic through collector	MEng
Van der Westhuizen JE	2015	Investigation into using liquid crystal thermography as primary measurement technique for obtaining local wall temperature and heat transfer coefficients in tube-in-tube heat exchangers	MEng
Van Laar JH	2015	Microwave-plasma synthesis and nano-sized silicon carbide at atmospheric pressure	MEng
Yiannou A	2015	Nanofluid thermal conductivity "A themo-mechanical, chemical structure and computational approach"	MEng

Le Roux WG	2015	Thermodynamic optimisation and experimental collector of a dish-mounted small-scale solar thermal Brayton cycle	PhD
Mehrabi M	2015	Modelling and optimisation of thermophysical properties and convective heat transfer of nanofluids by using artificial intelligence methods	PhD
Mwesigye A	2015	Thermal performance and heat transfer enhancement of parabolic trough receivers – numerical investigation, thermodynamic and multi – objective optimisation	PhD
Vadasz JJ	2015	Vibration effects on natural convection in a porous layer heated from below with application to solidification of binary alloys	PhD
Coetzee N	2015	Heat transfer coefficients of smooth tubes in the turbulent flow regime	MEng
SP Olivier	2015	The influence of the inclination angle on void fraction and heat transfer during condensation inside a smooth tube	MEng
TC Montgomery	2016	Optimal distribution of discrete heat sources in a two-dimensional data centre	MEng
CL Ngo	2016	Natural convection and radiation heat loss in solar cavity receivers – numerical modelling, performance enhancement and optimisation	PhD
I Garbadeen	2016	Natural convection of multi-walled carbon nanotubes with water mixtures in a square enclosure	MEng
SA Adio	2016	Experimental investigation and mathematical modelling of thermophysical properties of ethylene glycol and glycerol-based nanofluids	PhD
N Tshimanga	2016	Experimental investigation and model development for thermal conductivity of glycerol-based nanofluids	MSc
E Miles	2016	Optimal Control Surface Mixing of a Rhomboid-Wing UAV	MEng
FA Mulock-Houwer	2016	The effect of adjacent tubes on the diabatic friction factors in the transitional flow regime	MEng
E Vause	2016	The inlet effects of multiple tubes on the adiabatic pressure drop of smooth, horizontal tubes in the transitional flow regime	MEng
MR Greenland	2016	Analysis of conjugate heat transfer and pressure drop in microchannels for different aspect ratios	MEng

M Kandindi	2017	Heat transfer and pressure drop investigation for prescribed heat fluxes on both the inner and outer wall of an annular duct of a tube in tube heat exchanger	MSc
KG Katamba	2017	Investigation into waste heat to work in thermal systems in order to gain more efficiency and less environmental defect	MSc
R Kombo	2017	Qualitative analysis of flow patterns: two phase flow condensation at low mass fluxes and different inclination angles	MSc
J-M M Kutumba	2017	Thermal management and optimization of heat transfer from discrete heat sources	MSc
H Ghodsinezhad	2017	Experimental natural convection of Al2O3 water nanofluids in cavity flow	MEng
E Grove	2017	Feasibility study on the implementation of a boiling condender in a South African fossil fuel power plant	MEng
ATC Hall	2017	The effect of a multiple tube inlet on heat transfer performance in the transitional regime in smooth horizontal tubes	MEng
JC Joubert	2017	Influence of a magnetic field on magnetic nanofluids for the purpose of enhancing natural convection heat transfer	MEng
BW Kohlmeyer	2017	Local heat transfer coefficient and wall temperature measurements for solar driven system	MEng
SB Leith	2017	An investigation into the external flow boiling phenomena on the surface of water cooled Zircaloy-4 and silicon carbide nuclear fuel cladding	MEng
MD Marais	2017	Computation fluid dynamics investigation of wind loads on heliostat structures	MEng
TL Otterman	2017	Experimental and numerical investigation into the natural convection of TiO2-water nanofluid	MEng
J Otto	2017	Nuclear fusion of Li-6 H-2 crystals	MEng
PFA Prinsloo	2017	Investigation of turbulent heat transfer and pressure drop characteristics in the annuli of tube-in-tube heat exchangers (horizontal lay-out)	MEng
OO Adewumi	2017	Constructal design and optimization of combined microchannels and micro pin fins for microelectronic cooling	PhD

OO Noah	2017	Experimental, theoretical and numerical investigation of natural convection heat transfer from heated micro-spheres in a slender cylindrical geometry	PhD
J Baloyi	2017	Thermodynamic analysis of a circulating fluidized bed combustor	PhD
M Mahdavi	2017	Study of flow and heat transfer features of nanofluids using multiphase models: Eulerian multiphase and discrete Lagrangian approaches	PhD
M Moghimi Ardekani	2017	Optical, thermal and economic optimization of a linear Fresnel collector	PhD
AB Mohammed	2017	Wind resource assessment and GIS-based site selection methodology for efficient wind power deployment	PhD
W Bornman	2017	Energy optimization for mine cooling systems through flow control	PhD
Smith L	2017	Investigation of a modified low-drag body for an alternative wing-body-tail configuration	PhD
Sanama Goufan CC	2017	Mathematical modelling of flow downstream of an orifice under flow accelerated corrosion	MEng
Alfama MAC	2017	Theoretical and experimental investigation of the heat transfer and pressure drop optimization on textured heat transfer surfaces	MEng
Arnacellan K	2017	Aerodynamic loss reduction in a vane cascade with leading edge fillet and upstream endwall film cooling	MEng
Joubert M	2017	The influence of a multiple tube inlet condition on fully-developed friction factors in the transitional flow regime	MEng
Kruger M	2017	Implementing a low finess ratio fuselage in an airliner	MEng
Pallent LMJ	2017	The influence of a multiple tube-inlet on heat transfer in the transitional flow regime	MEng
Ndenguma DN	2018	Heat transfer and pressure drop in annuli with non-uniform internal wall temperatures	PhD
Okafor IF	2018	Influence of circumferential spans of heat flux distributions on secondary flow, heat transfer and friction factors for a linear focusing solar collector type absorber tube	PhD
Everts M	2018	Single-phase mixed convection of developing and fully developed flow in smooth horizontal tubes in the	PhD

		laminar, transitional, quasi-turbulent and turbulent flow regimes	
Cramer LM	2018	Enhancements of the thermal performance of solar heat exchangers with porous inserts	MEng
Huisamen E	2018	A thermos-hydraulic model that represents the current configuration of the SAFARI-1 secondary cooling system	MEng
Reid WJ	2018	Experimental investigation of circumferentially non-uniform heat flux on the heat transfer coefficient in a smooth horizontal trube with buoyancy driven secondary flow	MEng
Van der Merwe N	2018	Fully developed forced convection heat transfer and pressure drop in a smooth tube in the transitional flow regime	MEng
Kumirai T	2018	Development of a design tool for PCM based free comfort cooling system in office buildings in South Africa	MSc
Marsberg J	2018	Development of numerical techniques for evaluation of point-focus solar cavity receiver performance	MEng
Ramnath V	2018	Mathematical modelling of nanofluid thermophysical properties using compulas	MEng
Slootweg M	2019	Numerical performance analysis of a novel solar receiver	MEng
Abolarin SM	2019	Heat transfer and pressure drop characteristics in the transitional flow regime with twisted tape inserts	PhD
Ewim DRE	2019	Condensation inside horizontal and inclined smooth tubes at low mass fluxes	PhD
Giwa SO	2020	Investigation into thermal-fluid properties of hybrid ferrofluids as heat transfer fluids	PhD
Osman SMM	2020	Experimental investigation into convective heat transfer in the transion flow regime by using nanofluids in a rectangular channel	PhD
Bashir AI	2020	Single-phase forced and mixed convection in the laminar and transitional flow regimes of inclined smooth tubes with inlet distrurbances	PhD
Shote AS	2020	Aerodynamic losses and endwall heat ttransfer in a linear vane cascade with endwall film-cooling and leading-edge contouring	PhD
Govinder K	2020	Theoretical analyses and the design, construction and trsting of a flow loop for the study of generalized forced	MSc

		and natural convection boiling heat transfer phenomena on typical light-water nuclear reactor fuel in pin configurations	
Torr AM	2020	Heat transfer augmentation in a rectanglur channel by the use of porous screen inserts	MEng
Dellar KE	2020	Clamped plate-style recuperator for a small-scale solar thermal Brayton cycle using high-temperature sealant	MEng
Meyer M	2020	Modeliing and multi-objective optimisation of heat transfer characteristics and pressure drop of nanofluids in microtubes	MEng
Steyn RM	2020	Local heat transfer coefficients in an annular passage with low turbulation	MEng
Swanepoel JK	2020	Helically coiled cavity receiver for a micro-scale direct generation steam Rankine cycle using a novel solar dish design	MEng
Wilken NJ	2020	Experimental investigation of free-surface jet-impingement cooling by means of TiO_2 nanofluids	MEng
Potgieter JF	2020	Numerical investigation on the effect of gravitional orientation on bubble growth during boiling in a high aspect ratio microchannel	MEng
Bock BD	2021	Surface influences on falling fil boiling and pool boiling of saturated refrigerants	PhD
Roosedaal C	2021	Analysis of a novel low-cost solar concentrator using lunar flux mapping techniques and ray-tracing models	MEng
Seal MK	2021	The prediction of condensation flow patterns by using artificial intelligence (AI) techniques	MEng
Vermaak M	2021	Experimental investigation of microchannel flow boiling heat transfer with non-uniform circumferential heat flux at various gravitational orientations	MEng
Rungasamy AE	2021	Performance assessment and optimization of different configuration of etendue conserving compact linear Fresnel solar fields	PhD
Otukpa OG	2021	Optimizatioin of wind barriers for the minimization of mirror soiling in a parabolic trough collector plant	MEng
Quick J	2021	Computational investigation of swirling jet impingement in a concentrated solar tower receiver	MEng
Scheepers H	2021	Experimental investigation of the impact of non-uniform heat flux on boiling in a horizontal circular test section	MEng

POST-DOCTORAL AND INTERNSHIP SUPERVISION AND CO-SUPERVISION			
Dr T Bello-Ochende (Duke University)	2005/6	Heat transfer augmentation in heat sink channels	Post doctoral fellow
Dr S Lips (INSA of Lyon)	2010/2011	Experimental investigation of diabatic two-phase flows in inclined tubes	Post doctoral fellow
F Bocquet (INSA of Lyon)	2010 (six months)	Heat transfer in the transitional flow regime during a constant heat flux	MSc Internship
Dr G Dutta (IIT India Bombay)	2011/2012	Development of a thermal-hydraulic model to analyse an nuclear reactor loop	Post doctoral fellow
Dr P Nwosu (University of Nigeria)	2011/2012	Mathematical modelling and experimental investigation into thermal-fluid behaviour of nanofluids	Post doctoral fellow
Dr AO Adelaja (University of Lagos)	2013/2014	Condensation in inclined tubes	Post doctoral fellow
Dr OT Olakoyejo (Obafemi Awolowo University)	2013	Geometric optimisation of conjugate cooling channels with different cross-sectional shapes	Post doctoral fellow
Dr L de Souza Martins PhD (Florida State University)	2013/2014	Optimal configuration for maximum current density from different types of fuel cells	Post doctoral fellow
J Montaut (INSA-Lyon)	2014 (six months)	The influence of surface roughness in transitional flow regime	MSc Internship
V Maillard (ENSMA)	2014 (six months)	Transition in coiled tubes	MSc Internship
L Trebert (ISAE-ENSMA)	2015 (six months)	Artificial roughening of long tubes	MSc Internship
M Motohoa (NRF)	2015/2016 (twelve month)	Phase change in refrigerants	Internship after BTech
M Masamba (Michigan State University)	2015 (10 weeks)	Construction of heat exchanger equipment	Internship as part of BS-degree
M Mehrabi (University of Pretoria)	2016	Modelling nanofluids thermophysical properties by constructal theory and modified NSGA-II	Post doctoral fellow – **9 months at Harvard**
J Montaut (INSA-Lyon)	2016 (10 weeks)	Infleunce of surface roughness on heat transfer in the transitional flow regime	MSc Internship
G Doyen (INSA-Lyon)	2016 (10 weeks)	Transition in heat transfer	MSc Internship

M Mothoa BTech (ChemEng) (TUT)	2015/2016	Surface roughness of tubes	NRF intern
Brusly Solomon (Karunya University)	2016/2107	Natural convection of magnetic nanofluids	Post-doctoral fellow
Ali Noori (University of Guilan)	2016/2017	Condensation heat transfer	Post-doctoral fellow
Alienor Creasmias (INSA-Lyon)	2018	Outlet effects of forced and mixed convection in laminar flow	MSc Internship
Mostafa Mahdavi (Shiraz University / University of Pretoria)	2017/2018	New model development for nano-scale heat transfer in multiphase approach for nanofluids	Post-doctoral fellow
Marilize Everts (University of Pretoria)	2018 – 2020 (April)	Single-phase mixed convection heat transfer and pressure drop of developing and fully developed flow in smooth horizontal tubes in the laminar, transitional, quasi-turbulent and turbulent flow regimes using high Prandtl number fluids	Post-doctoral fellow
Suvanjan Bhattacharyya (Jadavpur University)	2018/2019	Laminar flow in smooth tubes at low Reynolds numbers	Post-doctoral fellow
Umair Siddique (VJTI, Mumbai)	2020	Tube inlet effects in turbulent flow	Post-doctoral fellow
Mostafa Mahdevee (University of Pretoria)	2020	Inlet tube developmental effects for forced and mixed convection	Post-doctoral fellow
Mostafa Mahdevee (University of Pretoria)	2021	Theoretical and computational analysis of heat, fluid and mass transfer in cooling systems: with nanotechnology involved	Post-doctoral fellow
Suseel Kal Krishnan	2021	Experimental investigation into natural convection of hybrid magnetic nanofluids	Post-doctoral fellow
Umair Mohd Siddique	2021	Numerical Investigation of cooling rate under the impingement of pulse jet	Post-doctoral fellow

Research leadership

- Chair of the Research Committee of the Faculty of Engineering of North-West University, 1990 to 1994.

- Leader and initiator of the Research Group for Cooling and Heating Technology (RECOHET) at the University of Johannesburg. The research group consisted of 20 to 30 graduate students. I also initiated the building and construction of a new enhanced heat transfer laboratory for evaluating evaporation and boiling heat transfer characteristics of new refrigerants and zeotropic refrigerants. Most of the funding for this laboratory came from sources outside the university. The first experiments in this laboratory were carried out in June 1997.

- Leader of the Thermoflow Research Group at the University of Pretoria. The research group consisted of about 50 graduate students and 8 staff members. Initiated the development and construction of two heat transfer laboratories with several advanced experimental set-ups: tube-in-tube heat exchanger set-up, transitional flow set-up, annulus set-up, micro channel set-up, condensation in micro channel set-up, condensation set-up, carbon nanotube set-up and a pin fin set-up for turbine blades.

- Conference Chair of the 1st International Conference on Heat Transfer, Fluid Mechanics and Thermodynamics, sponsored by the American Society of Mechanical Engineers (ASME) and the South African Institute for

Mechanical Engineers (SAIMechE), 8 to 10 April 2002.

- Conference Chair of the 2nd International Conference on Heat Transfer, Fluid Mechanics and Thermodynamics, sponsored by the Engineering Institute of Zambia, 23 to 26 June 2003.

- Conference Chair of the 3rd International Conference on Heat Transfer, Fluid Mechanics and Thermodynamics, 21 to 24 June 2004.

- Conference Chair of the 4th International Conference on Heat Transfer, Fluid Mechanics and Thermodynamics, Cairo, Egypt, 19 to 22 September 2005.

- Conference Chair of the 5th International Conference on Heat Transfer, Fluid Mechanics and Thermodynamics, Sun City, 1 to 4 July 2007.

- Conference Chair of the 6th International Conference on Heat Transfer, Fluid Mechanics and Thermodynamics, Pretoria, 30 June to 2 July 2008.

- Conference Chair of the 7th International Conference on Heat Transfer, Fluid Mechanics and Thermodynamics, Antalya, Turkey, 19-21 July 2010.

- Conference Chair of the 8th International Conference on Heat Transfer, Fluid Mechanics and Thermodynamics, Mauritius, 8 – 11 July 2011.

- Conference Chair of the 9th International Conference on Heat Transfer, Fluid Mechanics and Thermodynamics, Malta, 16– 18 July 2012.

- Conference Chair of the Organising Committee of the 10th International Conference on Heat Transfer, Fluid Mechanics and Thermodynamics, Orlando, 14 – 16 July 2014.

Conference Chair of the 3rd Southern African Solar Energy

- Conference (SASEC2015), Kruger National Park, Skukuza, 11 – 13 May 2015.

- Conference Chair of the of the 11th International Conference on Heat Transfer, Fluid Mechanics and Thermodynamics, Skukuza, 20 – 23 July 2015.

- Conference Chair of the 12th International Conference on Heat Transfer, Fluid Mechanics and Thermodynamics, Malaga, Spain, 11-13 July 2016.

- Conference Co-chair, International Conference on Design, Mechanical and Material Engineering (D2ME2016), Hong Kong Society of Mechanical Engineers, Auckland, 8 – 10 September 2016.

- Conference Chair of the 13th International Conference on Heat Transfer, Fluid Mechanics and Thermodynamics, Portorož, Slovenia, 17-19 July 2017.

Research funding

Funding for Department or School of Engineering and/or Chairs, not directly related to my research

For 2007:

R250 000 (PPS Refurbishment Sponsorship for CDIO lab)
R170 million (Department of Education for new buildings for Engineering, together with A Melck and RF Sandenbergh)

For 2009:

R2.5 million (Department of Trade and Industry for Centre of Excellence in Advanced Engineering)

R1.75 million/annum for five years (Two chairs in maintenance engineering sponsored by SASOL, Eskom, Anglo and Exxaro).

For 2010

R15.6 million (Department of Education for new equipment)

For 2010 - 2014

R1.75 million/annum for five years (Two chairs in maintenance engineering sponsored by SASOL, Eskom, Anglo and Exxaro).

For 2004: (R4.5 million)

R60 000 (TESP)
US$76 750 (ASHRAE with L Liebenberg and AG Malan)
R1 800 000 (THRIP application with L Liebenberg and AG Malan)
R732 000 (NRF: 2003 to 2005)
R1 231 200 (Pebble bed nuclear reactor/North West University together with A G Malan: 2004 to 2006)
R114 000 (Kentron with A G Malan)
R50 000 (Polish – South Africa collaboration)

For 2005: (R4.5 million)

R732 000 (NRF: 2003 to 2005)
R80 000 (Eskom TESP)
R50 000 (Eskom with L Liebenberg)
R1 231 200 (Pebble bed nuclear reactor/North West University together with A G Malan: 2004 to 2006)
US$76 750 (ASHRAE with L Liebenberg: 2004 to 2006)
R543 000 (THRIP with L Liebenberg and A G Malan)
R1 200 000 (SIMRAC: 2005/2006 with NDL Burger and J Dirker)

For 2006: (R4.5 million)

R309 000 (NRF: for 2006 only)
R80 000 (Eskom TESP)
R50 000 (Eskom with Liebenberg)
R1 231 200 (Pebble bed nuclear reactor/North West University together with A G Malan: 2004 to 2006)
US$76 750 (ASHRAE with L Liebenberg: 2004 to 2006)
R30 000 (Franke)
R1 200 000 (SIMRAC: 2005/2006 with NDL Burger and J Dirker)
R1 000 000 (THRIP with L Liebenberg and A G Malan)
R50 000 International Science Co-operation grant with Poland

For 2007: (R2.04 million)

R100 000 (Constructal Theory Workshop: Kumba Resources, SASOL and NRF)
R80 000 (Eskom TESP)
R845 587 (NACoE with L Liebenberg)
R721 000 (THRIP) plus R1 020 000 (industry)
R300 000 (NRF)

For 2008: (R4.48 million)

R3 000 000 (DTI)
R80 000 (Eskom TESP)
R195 000 (NRF) (same amount per annum from 2008 to 2011)
R720 000 (SANERI: Solar Thermal Power Generating Spoke hosted by UP and US)
R276 000 (NACoE with L Liebenberg)
R210 000 (CSIR)

For 2009: (R5.4 million)

R2 500 000 (DTI)
R80 000 (Eskom TESP)
R420 000 (CSIR: CFD)
R364 710 (CSIR: Gas turbine research)
R320 000 (EEDSM Hub)
R106 500 (Armscor)
R880 000 (SANERI/University of Stellenbosch)
R275 000 (NRF)
R422 571 (NACoE)

R191 820 (ASHRAE)

For 2010: (R2.4 million)

R100 000 (Eskom TESP)
R880 000 (SANERI/University of Stellenbosch)
R275 000 (NRF)
R218 880 (CSIR: Gas turbine research)
R342 000 (NACoE)
R280 000 (EEDSM Hub)
R350 000 (CSIR: Defence, Peace, Safety and Security)

For 2011: (3.2 million)

R95 000 (Eskom TESP)
R200 000 (NRF)
R350 000 (CSIR: Defence, Peace, Safety and Security)
R469 970 (CSIR: Gas turbine research)
R1 000 000 (SANERI/University of Stellenbosch)
R400 000 (EEDSM Hub)
R366 667 (National Aerospace Centre)
R380 000 (E_IRT: University of Pretoria)

For 2012: (R2.1223 million)

R650 000 (SANERI/University of Stellenbosch)
R196 000 (CSIR: Gas turbine research)
R145 000 (Eskom TESP)
R620 000 (EEDSM Hub)
R366 667 (National Aerospace Centre)
R145 000 (Eskom TESP)
R80 000 (NRF)
R200 000 (Energy_IRT)

For 2013: (2.88 million)

R105 000 (Eskom TESP): Heat transfer research
R620 000 (EEDSM Hub): Energy efficient heat exchangers
R80 000 (NRF)
R750 000 (DST-NRF Renewable Energy Spoke): Heat exchangers
R569 970 (CSIR): Pin-fin heat exchangers
R366 667 (National Aerospace Centre): Using thermoflow in the manufacturing of more efficient and lighter aerospace equipment
R295 000 (National Aerospace Centre): Fuselage optimization for a new aircraft configuration)
R100 000 (Energy_IRT)

R7.5 million: DST-NRF, Thermal solar spoke in partnership between the University of Pretoria and Stellenbosch University. The focus of the University of Pretoria is concentrating on heat exchangers. Total amount awarded is shared between the two universities, 2013-2017.

R480 000: Algeria/South Africa Research Cooperation, Experimental and numerical investigation of refrigerant condensation in inclined tubes in the cooling towers of concentrated solar systems, 2014-2015.

R195 000: Airbus and National Aerospace Centre, Gull-wing fuselage configuration to a wide body airliner and a two-seat sailplane, 2014-2015.

R316 000: Airbus and National Aerospace Centre, Aircraft fuselage optimization in terms of fineness ratio, wake quality, lift and stability, 2014-2016.

R510 000: RSES bursaries from the NRF for six students in renewable energy, 2014.

R497 850: CSIR, Heat transfer research, 2014.

R130 000: Airbus, Aircraft fuselage optimization in terms of fineness ratio, wake quality, lift and stability, 2015

R50 000: Eskom TESP, heat transfer research, 2015.

R1.3 million: Closed call renewable energy bursaries from the NRF for 14 masters and one PhD student, 2015.

R23 million: The Royal Society, Africa Capacity Building Initiative between University of Pretoria, Imperial College, University of Mauritius, and the University of Lagos, "Harnessing unsteady phase-change heat exchange in high-performance concentrated solar power systems", (JP Meyer took the lead in proposal preparation and was assisted by Dr Jaco Dirker, UP share: R8 million), 2016 – 2020.

R30 000: Eskom TESP, heat exchanger research, 2016.

R100 000: Copper Development Association of South Africa, research on copper heat exchangers with emphasis on microgroove technology in South Africa, 2016.

R1.2 million: Closed call renewable energy bursaries from the NRF for 13 masters and one PhD student, 2016.
R1.05 million: Running costs for renewable energy projects from the NRF.

R1.1025 million: Running costs for renewable energy projects from the NRF, 2017
R50 000: Eskom TESP, heat exchanger research, 2017.

R25 million: Smart thermal management of high-power microprocessors using phase-change (THERMASMART), European Commission, Horizon 2020 Research and Innovation Framework Programme, Consortium of 15 universities (including Edinburgh, Nottingham, Dublin, Kyushu, Maryland, Stanford, Tianjin, etc.) and 3 industry partners (ElveSys Microfluidic Innovation Center, Flow Capture AS, Cherry Biotec). University of Pretoria share of funding is R3.62 million, 2017 – 2021.

R2 070 000: Department of Science and Technology, research in solar thermal (R760 000 bursaries and R1 310 000 in running costs), 2018

R50 000: NRF, Incentive funding for rated researchers, 2018.

R50 000: Eskom TESP, heat exchanger research, 2018.

$15 000 + £20 640: MIT International Science and Technology Initiatives (MISTI), collaboration project between MIT, Imperial College London and University of Pretoria, Augmented Boiling with Nano-engineered Surfaces and Eco-friendly Refrigerants, 1 January 2019 – 31 August 2020.

R2 070 000: Department of Science and Technology, research in solar thermal (R760 000 bursaries and R1 310 000 in running costs), 2019.

R2 500 000: Department of Science and Innovation, research in solar thermal (R760 000 bursaries and R2 500 000 for the development of a prototype and running costs), 2020.

Funding for travel to Dalian Maritime University, accommodation (minimum one week) and honorarium, China High-level Foreign Experts' Introduction Project 2020, Ministry of Science and Technology of China and State Administration of Foreign Experts Affairs (SAFEA), International collaboration project with all the partners of the THERMASMART project, Researches on Multi-scale Mechanism of High Efficiency Phase Change Heat Transfer Based on Bionic Drag Reduction Structure, 2021 (online).

TRY 31 000 (approximately 50 000) for collaboration with Yildiz Technical University and King Mongkut's University of Technology Thonburi, Experimental Investigation of the Inclination Angle on Heat Transfer Characteristics in Two-Phase Flows by using Hybrid Nanofluids flowing in Smooth and Enhanced Double-Pipe Heat Exchangers, 2021.

EXTERNAL EXAMINER
THESES (1995 - the present)

Year	Title	University

	Degree, candidate & Supervisor		
1995	Du Plessis P DEng Prof L Pretorius	Mechanical oscillations on overhead transmission lines	University of Johannesburg
1995	Kleingeld M PhD Prof EH Mathews	Novel aspects of a national campaign on household energy savings	University of Pretoria
1995	Grobler LJ PhD Prof EH Mathews	A new holistic approach for HVAC retrofitting	University of Pretoria
1996	Lombard C PhD Prof EH Mathews	Two-port simulation of HVAC systems, an object-oriented approach	University of Pretoria
1996	Moodie JHR MEng Prof PG Rousseau	Development and integration of simplified mathematical models of chillers and air-conditioners for HVAC system simulation	University of Pretoria
1996	Weggelaar A MEng Prof EH Mathews	Verification, application and extension of a novel thermal simulation model	University of Pretoria
1997	MEng Sikder M Prof CJ Rallis	The design, fabrication and testing of a cyclone precipitator to provide particles of suitable sizes for uses in measuring the laminar burning velocity of premixed gases by means of laser doppler velocimetry	University of the Witwatersrand
1997	PhD Van Heerden E Prof EH Mathews	Integrated simulation of building thermal performance, HVAC system and control	University of Pretoria
1997	PhD Buys JH Prof EH Mathews	Integration of economic and performance analyses of HVAC systems	University of Pretoria
1997	MEng Kilfoil AM Prof EA Moss	Water flushing of rock chips from horizontal holes drilled by rotary percussion	University of the Witwatersrand
1997	MEng Arndt DC Prof EH Mathews	Further extension, verification and application of integrated building, HVAC system and control simulation	University of Pretoria
1998	MEng Thom MG Prof TJ Sheer	Performance evaluation of a desiccant-evaporative cooling air-conditioning system	University of the Witwatersrand
1998	MEng Taylor PB Prof EH Mathews	Enhancing the energy efficiency of houses and geysers	University of Pretoria

1999	MEng Pretorius CA Prof PG Rousseau	Simulation of non-azeotropic heat pump performance	North-West University
2001	MEng MF Geyser Prof EH Mathews	New technology for ESCO analysis	University of Pretoria
2002	M.Eng PW Jordaan Prof PG Rousseau	Determining the potential impact of a micro heat pump for domestic water heating	North-West University
2002	M.Eng HJ van Antwerpen Prof GP Greyvenstein	An investigation into the viability of using turbines for simultaneous secondary pressure regulation and energy recovery in mine- cooling water systems	North-West University
2003	PhD CP Botha Prof EH Mathews	Simulation of the human energy system	North-West University
2003	PhD R Els Prof EH Mathews	Energy evaluations and load shift feasibility in South African mines	North-West University
2003	M.Eng DT Claassen Prof EH Mathews	New procedures to reduce cost in HVAC systems	North-West University
2004	PhD M den Boef Prof EH Mathews	Assessment of the national DSM potential in mine underground services	North-West University
2004	PhD W den Heijer Prof GJ Grobler	An integrated approach to implement and sustain energy efficiency and greenhouse gas mitigation in SA	North-West University
2004	MEng GJ Martins Prof LJ Grobler	A methodology to identify, quantify and verify the cost benefits of energy and process improvements on a ferro-metal production plant	North-West University
2004	MEng JC Olivier Prof GP Greyvenstein	Network modeling of transient heat exchanger performance	North-West University
2005	PhD		North-West University

	W Bouer Prof EH Mathews	Designing a dynamic integrated thermal and energy system simulation scheme for cross industry applications	
2005	PhD WF Fuls Prof M Kleingeld	Development of a novel interim bulk fuel storage facility for the PBMR	North-West University
2005	MEng G du Plessis Prof PG Rousseau	Evaluation of alternative sanitary water heating configurations for demand side management	North-West University
2008	MSc Z Essa Dr F Inambao	Experimental and theoretical analysis of heat transfer on a transonic blade	University of Kwazulu-Natal
2008	Doctoral degree C T'Joen Prof M De Paepe	Thermo-hydraulic study of inclined louvered fins	University of Ghent
2010	M.Eng. P van Zyl Venter Dr M Van Eldik	A supercritical R-744 heat transfer simulation implementing various Nusselt number correlations	North-West University
2011	PhD H Huisseune Prof M De Paepe	Performance evaluation of louvered fin compact heat exchanger with vortex generators	University of Ghent
2012	PhD AK Pandey Dr MR Nandgaonkar	Investigation of DI diesel engine for military and disaster management vehicles using different alternative fuel	University of Pune
2013	MScEng MC Page MJ Brooks and Prof LW Roberts	Modelling and experimental validation of a loop heat pipe for terrestrial management applications	University of KwaZulu-Natal
2013	MScEng NM Mutombo Dr FL Inambo Prof G Bright	Design and performance analysis of hybrid photovoltaic-thermal grid connected system for residential application	University of KwaZulu-Natal
2013	PhD PR Dhamangaonkar Dr. M. R. Nandgaonkar	To develop a predictive tool for boiler tube failure	University of Pune
2013	MEng JA Mulder Dr M van Eldik	Simulation and evaluation of flow boiling heat transfer correlations for R-744	North-West University
2014	PhD B Ameel Prof M de Paepe Prof J Vierendeels	Optimisation of compound louvered fin and vortex generator heat exchangers	University of Ghent

2014	PhD E Luwaya Prof FD Yamba Dr PC Chisale	Improvement of conversion efficiency of charcoal kiln using a numerical method	University of Zambia
2014	PhD R Kaul	Design and fabrication of a centrifugal pump of low specific speed through proper design, analysis and optimization through CFD for validation of work	University of Pune
2014	PhD JI Gonzalez Prof RG Gordon Dr OG Valladares	Heat transfer study in annular spaces with the helical wire insert.	University of Cuba
2015	PhD BRR Singh Dr SV Prabhu Dr A Agrawal	Experimental and numerical studies of flow and heat transfer in twisted square ducts	Indian Institute of Technology, Bombay
2015	MEng MN Ras Prof M van Eldik	A method for the seasonal performance rating of residential water heating heat pump	Nort-West University
2015	PhD ST Latibari Dr A Andriyana	Encapsulation of organic phase change materials within metal oxides for thermal energy storage systems	University of Malaya
2016	MSc(Eng) CD Noble Dr A Madhlopa	Numerical study of a hybrid photovoltaic thermal desalination system	University of Cape Town
2017	PhD AK Mishra Prof S Kumar Prof RV Sharma	Studies on influence of non-darcy flow and property variation on three-dimensional natural convection in a confined porous medium with internal heat generation	National Institute of Technology Jamshedpur Jharkhand
2017	PhD T Tharayil Dr LG Asirvatham	Studies on the nanoparticle coated miniature loop heat pipe with graphene-water nanofluid	Karunya University
2017	PhD P Sharanappa Dr M Navindgi	Experimental investigation of performance and emission characteristics of DI diesel engine fuelled with dieselbiodiesel blends with additives	Vishvesvaraya Technological University Belgaum
2018	PhD PS Chaware Dr Sewatkar	Fluid flow and heat transfer analysis of flow through pipe with twisted tape insert	Savitribai Phule Pune University
2018	PhD R Nandkumar	Exergy analysis of cooling tower of a thermal power plant	Savitribai Phule Pune University

	SN Sapali		
2018	PhD A Kumar Dr A Layek	Performance analysis of solar air heater having twisted rib as artificial roughness over absorber plate	National Institute of Technology, Durgapur
2018	PhD K Gnana Sundari Dr TMN Kumar Dr LG Asirvatham	Heat transfer characteristics of nanofluids for automotive cooling applications	Karunya Institute of Technology and Sciences
2018	PhD CS Choudhari Dr SN Sapali	Design, development and performance evaluation of a refrigeration system for a new environmental friendly refrigerant	Savitribai Phule Pune University

3. INDUSTRY EXPERIENCE

INVOLVEMENT

Company	Position	Description of services
M-Tech Mechanical	Director from 1990 to 1994, CEO during 1993.	General consulting in mechanical engineering concentrating on computational fluid dynamics. A few other development and manufacturing projects (e.g. air knives).
M-Tech Software	Founder and CEO from 1992 to 1994. Sold the company in 1994.	Marketing of technical software, concentrating on the ANSYS finite element programme.
Enerflow CC	Director from 1992 - 2000.	Developing, manufacturing and marketing 5 ranges of heat pumps (286 different models).
Fabco Technologies (Pty) Ltd	Director from 1993 until 1994. CEO during 1993.	Multi-disciplinary engineering (consulting, turnkey projects, energy audits, etc.). Associated companies were: CDS Electrical Engineers, M-Tech Mechanical, Enerflow, FRAD and Fabco Trading.
EPS Consulting Engineers	Founder and CEO (1994 to 2002).	Energy Performance Contracting projects.
Cooling and Heating Technologies	Founder and CEO (1994 to 2002).	Consulting in air-conditioning and refrigeration.
Randtech	Founder and CEO (2000 – 2002).	General consulting in mechanical engineering for staff at the University of Johannesburg.

4. MEMBERSHIPS, CONTRIBUTIONS TO SOCIETIES, JOURNALS, COUNCILS, COMMISSIONS, SEMINARS, RESEARCH VISITS, ETC.

Commissions and committees (Universities)

- University of North-West, Research Committee, 1990 - April 1994, chairperson.
- University of North-West, Special Committee on the Revision of the Guidelines for the writing of mini-dissertations, dissertations and theses, member, 1990.
- University of North-West, Senate Commission, Special Committee writing a document: "Guidelines for study leaders and supervisors for master's and doctoral students and guidelines for examination", member, 1992.
- University of North-West , Executive Committee of the Faculty of Engineering, member by representing Mechanical Engineering as Acting Head, October 1992 - November 1993.
- University of Johannesburg, Committee on determining the views of undergraduate students on the Faculty of Engineering, member, 1995.
- University of Johannesburg, Committee on changing from laboratory system to full departmental systems, 1997 – 1999.
- University of Johannesburg, Committee on upgrading and modernising media equipment for lecture rooms, 1998.
- University of Johannesburg, developing of an energy course, curricula, and study guides, material, etc. for a Diploma in Technology Education, 1999-2000.
- University of Johannesburg, Dean's committee, 1999 – 2003.
- University of Johannesburg, Ethics committee of Senate, 2001 – 2003.
- University of Johannesburg, Committee for the development of a new educational model, 2001 – 2002.
- University of Pretoria, Research Committee, Faculty of Engineering, 2003 – 2010.
- University of Pretoria, Senate, July 2002 – present.
- University of Pretoria, Member of the Managing Committee of the Faculty of Engineering, Built Environment and Information Technology, 2004 – present.
- University of Pretoria, Facilities Management Committee, 2005 – 2008.
- University of Pretoria, Chair of Mathematics Committee, 2007 - present.
- University of Pretoria, User Client Committee for New Engineering Building, 2009 – 2011.

Research/promotion evaluation/reviewer (articles excluded)

- Member NRF/Vaal Triangle Technikon Programme Advisory Committee, 2000 – present.
- NRF Committee to evaluate research at Vaaldriehoek Technikon, 2000, 2001.
- NRF, International Science Liaison, evaluation of applications, keynote speakers, 6 February 2003.
- University of Durban-Westville, Promotions Committee, 14 February 2003.
- NRF Review Committee, post-doctoral fellowship applications, 2003 – 2005.
- NRF, Evaluation of International Science Liaison Grants, 2003 – 2005.
- NRF, Evaluation of research proposal for NRF Technikon Programme, 2003.
- Innovation Fund, technical evaluator, 2003, 2005.
- The Royal Society, United Kingdom, Research grants, June 2004.
- NRF peer rating, 2004 to the present. Evaluating the quality of research outputs and standing of researchers.
- The Royal Society, United Kingdom, Research grants, August 2006.
- Czech Science Foundation, Project Proposal, June 2008.
- University of Ghent, Research infrastructure, September 2009.
- The Royal Society, United Kingdom, Research grants, March 2010.
- Research Foundation Flanders, Research grants, March 2011.
- McMaster University, Ontario, Canada, Promotions, June 2011.
- National Commission for Scientific and Technological Development (CONICYT) and the Superior Council of the National Fund for Scientific & Technological Development (FONDECYT), Chile, October 2011.
- University of Ghent, Promotions, March 2012.
- NRF, SARCHI chair reviewer, October 2012.
- Research Foundation Flanders (FWO), March 2013, July 2013.
- Expert reviewer for research projects for the Qatar National Research Fund (QNRF), 2014, 2015.

- University of the Witwatersrand, screening committee for promotion to professor, October 2013.
- Imperial College London, Evaluation of candidate for promotion, February 2014.
- NRF, member of Specialist Committee for Engineering, assessment panel for rating of researchers, July 2014 – February 2018.
- NRF, Specialist Committee for Engineering, assessment panel for rating of researchers, 2014 – 2017.
- NRF, Specialist Committee for Engineering (Convenor), assessment panel for rating of researchers, 2015/2016 and 2016/2017.
- University of Johannesburg. Selection committee to evaluate the appointment of Distinguished Professors, September 2015.
- Natural Sciences and Engineering Research Council of Canada (NSERC), reviewe of research proposal, December 2015.
- Imperial College London, Evaluation of candidate for promotion, February 2016.
- University of Botswana, Promotions, 2016.
- University of North Dakota, tenure and promotion, September 2016.
- Franklin Institute Awards Programme (one of the world's oldest (since 1824) broad-based efforts to recognize achievement in science, technology, and industrial progress), Benjamin Franklin Medal, confidential statement on suitability of a candidate, October 2016. To date,117 awards of this Institute, have been honoured with Nobel prizes.

Accreditations and external evaluations

- Member of accreditation team (Engineering Council of South Africa), University of Durban-Westville (1996): Mechanical Engineering programme.
- Member of accreditation team (Engineering Council of South Africa), University of Durban-Westville (2000): Mechanical Engineering programme.
- Member of external evaluations panel, University of Stellenbosch (2002): Faculty of Military Science, Department of Aeronautics.
- Member of accreditation team (Engineering Council of South Africa), University of Cape Town (2001): (Mechatronics programme).
- Member of paper accreditation team (Engineering Council of South Africa), University of Stellenbosch (2001): (Mechatronics programme).
- Member of accreditation team (Engineering Council of South Africa), University of Natal (2003): (Mechanical engineering programme).
- Member (team leader) of external evaluations panel, University of Stellenbosch (2005): School of Science and Technology.
- Member of accreditation team (Engineering Council of South Africa), University of Stellenbosch (2005): (Mechatronics engineering programme).
- Member of accreditation team (Engineering Council of South Africa), University of Stellenbosch (2006): (Mechatronics engineering programme).
- Member (team leader) of accreditation team, (Engineering Council of South Africa), University of North-West (2006): (Mechanical Engineering programme).
- Member of accreditation team (Engineering Council of South Africa), Nelson Mandela Metropolitan University (2007): (Mechatronics engineering programme).
- Member (team member) of accreditation team, (Engineering Council of South Africa), University of the Witwatersrand (2007): (Mechanical, Aeronautical and Industrial Engineering programmes).
- Member of International Advisory Board, Department of Mechanical Engineering, Polytechnic of Namibia.
- Member (team leader) of accreditation team, (Engineering Council of South Africa), University of KwaZulu-Natal (2008): (Mechanical programme).
- Member (team leader) of accreditation team, desk audit, University of Namibia, (2010): (Mechanical engineering programme).
- Member (team leader) of accreditation team, (Engineering Council of South Africa), University of Cape Town (2010): (Mechanical programme).
- Member (team leader) of accreditation team, (Engineering Council of South Africa), University of North-West (2011): (Mechanical programme).

- Member (visit leader and team member) of accreditation team, (Engineering Council of South Africa), University of KwaZulu-Natal, (2011): (Mechanical programme).
- Member of accreditation team, (Engineering Council of South Africa), University of Cape Town, (2012): (Mechatronics programme).
- Member of accreditation team, (Engineering Council of South Africa), North-West University, (2013): (Mechanical programme).
- Member of accreditation team, (Engineering Council of South Africa), University of the Witwatersrand, (2018): (Aeronautical programme).
- Member of accreditation team, (Engineering Council of South Africa), University of Stellenbosch, (2018): (Mechanical programme).
- Member of accredidation team, (Engineering Council of South Africa), Nelson Mandela University, (2019), (Marine engineering programme).

Advisory boards

- Member of the International Advisory Committee of Kalasalingam University, India, 2011.

Professional engineering committees

- Member of the Professional Advisory Committee (PAC) of the Engineering Council for South Africa (ECSA), 2002 – 2017, Moderator since 2017.
- Vice-chair of ECSA PAC, 2013,
- Member of the Professional Engineers: Qualifications and Examinations Committee (EPQEC), of the Engineering Council of South Africa (ECSA), 2004 – 2016.
- Moderator for professional registration, Engineering Council of South Africa (ECSA), 2017 – present.

Editor/Associate editor

- Associate Editor, Heat Transfer Engineering, 2002 – the present.
- Editor, Experimental Heat Transfer, 2005 – the present.
- Associate Lead Editor, Journal of Porous Media, 2013 – 2019
- Associate Lead Editor, Special topics & Reviews in Porous Media – An International Journal, 2013 – 2019.
- Advisory Editor, Science & Technology of Nuclear Installations, 2006 – 2010.
- Editorial Board Member, Journal of Porous Media, 2013 – 2019.
- Editor, Experimental Thermal and Fluid Science, 2016 – 2021.
- Associate Editor: Journal of Enhanced Heat Transfer, 2018 – present.
- Associate Editor: Applied Thermal Engineering, 2021 – present

Guest editor

- Aeronautica Meridiana, special issue, 1992.
- SA Journal of Science, special issue, 2006.
- Heat Transfer Engineering, special issues on HEFAT conferences, 2003, 2004, 2005, 2007, 2008, 2009, 2011, 2012, 2013, 2014, and 2016.
- Computational Thermal Sciences, special issues, 2013 (two issues in 2013 in Vol. 5, No: 2, and in Vol. 5, No: 3), 2014, and 2015.
- International Journal for Numerical Methods in Heat and Fluid Flow, 2008.
- Experimental Heat Transfer, special issue on HEFAT2005 conference, 2007.
- Editorial Board Member, Special topics & Reviews in Porous Media – An International Journal, 2013 – present.

Editorial boards

- Member of Editorial Committee, Aeronautica Meridiana, 1991- the present.
- Member of Editorial Advisory Board, Research and Development Journal, 1990 - 1994.
- Member of Editorial Advisory Board, Heat Transfer Engineering, 2001 – present.
- Editorial Board, Energy and Buildings, 2005 – 2007.
- Editorial Board member, International Review of Mechanical Engineering (IREME), 2006 - the present.

- Editorial Board member, International Review on Modelling and Simulations (IREMOS), 2008 - the present.
- Member of handbook committee of ASHRAE TC1.3 on content of ASHRAE Fundamentals 2009, chapter on Fundamentals, 2008.
- Editorial Board member, International Journal of Emerging Multidisciplinary Fluid Sciences, 2008 - the present.
- Member of the International Advisory Board, International Journal of Applied Engineering, (IJAE), 2011 – the present.
- Editorial Board member, International Journal on Energy Mix Infrastructure, 2014 – present.
- Editorial Board member, Heat Exchangers, 2014 – present.
- Member of the Editorial Advisory Board, Thermal Science and Engineering Progress, 2015 – present.
- Member of the Editorial Board, International Journal of Contemporary Energy, 2016 – present.
- Member of the Editoral Boad, Journal of Mechanical and Energy Engineering, published by the Faculty of Mechanical Engineering, Koszalin University of Technology, 2017 – present.
- Member of Editorial Board, Journal of Mechanical and Energy Engineering, 2018 – present.
- Member of Editorial Board, Journal of Enhanced Heat Transfer, 2018 – present.
- Member of Editorial Board, Energy and Thermofluids Engineering, 2020 – present.
- Member of Editorial Board, Journal of Thermal Engineering, 2021 – present.

Professional societies

- American Institute of Aeronautics and Astronautics (AIAA), Membership number: 85539, Member 1990 – 1995, 2005 – 2018, Senior member 2019 – present.
- Aeronautical Society of South Africa (Division of the Royal Aeronautical Society), Membership number 1368200, 1990 – 1995, Fellow, 2005 – present.
- South African Institution of Mechanical Engineers (SAIMechE), Membership number: 132060, Member 1985 – 1997, Fellow 1997 – 2017, Honory Fellow 2017 – present.
- American Society of Heating Refrigeration and Air Conditioning Engineers (ASHRAE), Membership number: 05084535, Member 1993 - the present.
- American Society of Mechanical Engineers (ASME), Membership number: 4032447, Member 1992 - 2007, Fellow 2007 - present,
- South African Institute of Refrigeration and Air Conditioning (SAIRAC), Membership number: 2486, Member 1999 – the present.
- Council member of the Aeronautical Society of South Africa (AeSSA), 2005 – 2014. Vice-president, 2009 – 2011.
- South African Academy of Engineering (SAAE), Fellow, 2006 – the present.
- International Institute of Refrigeration (IIR), Member, 2008 - the present.
- Society of Satellites Professional International (SSPI), 2010 – the present.
- Vice President of the Assembly for International Heat Transfer Conferences, 2018 – the present

Conference committees

- National Computational Fluid Mechanics Conference, member of organising committee, 1990.
- Chairperson for morning session on Transonic flow, Second National CFD Conference, Vereeniging, 1991.
- Session chairperson at the International Symposium on Economic Modelling, London, 1991.
- Session chairperson at the Seventh International Conference on Numerical Methods in Transonic Problems, Stanford, 1991.
- Morning session chairperson at a one-day Maintenance Forum in Johannesburg, 1991.
- Session chair: ASME_ZSITS International Thermal Science Seminar, Slovenia, 2000
- Session chair (2X): Conference on Applied Mechanics, Durban, SACAM, 2000
- Lead Scientist: 5th World Conference on Experimental Heat Transfer, Fluid Mechanics and Thermodynamics, Thessalonica, Greece, 2001.
- Session chairperson, 5th World Conference on Experimental Heat Transfer, Fluid Mechanics and Thermodynamics, Thessalonica, Greece, session on condensation, 2001.
- Member of the Conference Scientific Committee for the Compact Heat Exchanger symposium (A Festschrift on the 60th Birthday of Ramesh K Shah), IHTC Grenoble, France, 24 August 2002.
- Chair of organising committee, First International Conference on Heat Transfer, Fluid Mechanics and Thermodynamics, HEFAT2002, Skukuza, Kruger National Park, South Africa, 300 papers, 8 to 10 April 2002.

- Member of the Assembly of World Conferences on Experimental Heat Transfer, Fluid Mechanics and Thermodynamics (expire after the 7th World Conference on Experimental Heat Transfer, Fluid Mechanics and Thermodynamics).
- Member of the European Scientific Committee for the Compact Heat Exchanger Conference, Crete, September/October 2003.
- Member of the Scientific Advisory Board for the 2nd Dubrovnik Conference on Sustainable Development of Energy, Water and Environment Systems, 15 – 20 June 2003, Croatia.
- Member of the International Scientific Committee for the 3rd International Symposium on Computational Heat Transfer, Norwegian fjords, 19 – 24 April 2004.
- Lead Scientist, Assembly of World Conferences on Experimental Heat Transfer, Fluid Mechanics and Thermodynamics, 3rd International Symposium on Two-Phase Flow Modelling and Experimentation, Pisa, Italy, 22 – 24 September 2004.
- Member of the Organising committee and International Forum on Heat Transfer, Heat Transfer Society of Japan, Kyoto, Japan, 24 – 26 November 2004.
- Member of the organizing committee, SACAM04, Fourth South African Conference on Applied Mechanics, 18 – 21 January 2004.
- Member of the International Scientific Committee, 5th International Symposium on Multiphase Flow, Xi'an, China, 2005.
- Chair of organising committee, Second International Conference on Heat Transfer, Fluid Mechanics and Thermodynamics, HEFAT2003, Livingston, Zambia, 150 papers, 23 to 25 June 2003.
- Member of the Scientific Committee, ASME_ZSITS International Thermal Science Seminar, Slovenia, 13 – 16 June 2004.
- Member of the Student Program Track Leader, ASME and JSME, 12th International Conference on Nuclear Engineering, Arlington, Washington, DC, 25 – 29 April 2004.
- Member of the International Scientific Committee, 7th Conference on Process Integration, Modelling and Optimisation for Energy Saving and Pollution Reduction, PRES 2004, Prague, Czech Republic, 22 – 26 August 2004.
- Lead Scientist of the Sixth World Conference on Experimental Heat Transfer, Fluid Mechanics and Thermodynamics (ExHFT-6), Matsushima, Japan, 17 – 21 April 2005.
- Chair of organising committee, Third International Conference on Heat Transfer, Fluid Mechanics and Thermodynamics, HEFAT2004, Cape Town, 150 papers, 21 to 24 June 2004.
- Member of the Scientific Advisory Board of 2005 Dubrovnik Conference, 5 – 11 June 2005.
- Member of the Conference Scientific Committee, Heat Transfer in Components and Systems for Sustainable Energy Technologies: Heat-SET 2005, Grenoble, France, 5-7 April 2005.
- Member of the Scientific Committee of the Fifth International Conference on Enhanced, Compact and Ultra-Compact Heat Exchangers: Science, Engineering and Technology sponsored by ECI of New York, Whistler, British Columbia, Canada, September 12-16, 2005.
- Chair of organising committee, Fourth International Conference on Heat Transfer, Fluid Mechanics and Thermodynamics, HEFAT2005, Cairo, Egypt, 400 papers, 19 to 22 September 2005.
- Member of Scientific Committee of Special Session on Single and Two-phase Natural Circulation, 3rd IASME/WSEAS International Conference on Heat Transfer, Thermal Engineering and Environment, Corfu, Greece, 20 – 22 August 2005.
- Member of the Scientific Committee, Assembly for International Heat Transfer Conferences.
- Member of the International Scientific Committee, 9th Conference on Process Integration, Modelling and Optimisation for Energy Saving and Pollution Reduction, PRES 2006, Prague, Czech Republic, 27 – 31 August 2006.
- Member of the Scientific Advisory Board of the 4th Dubrovnik Conference on Sustainable Development of Energy, Water and Environment Systems, 4- 8 June 2007.
- Member of the International Scientific Committee, 10th Conference on Process Integration, Modelling and Optimisation for Energy Saving and Pollution Reduction, PRES 2007, Ischia Island, Gulf of Naples, 24 – 27 June 2007.
- Session Chair, 13th International Heat Transfer Conference (IHTC-13), Sydney, 13 - 18 August 2006.
- Member of the Scientific committee, Heat Transfer in Components and Systems for Sustainable Energy Technologies Conference (Heat-SET 2007), Chambery, France, 18-20 April 2007.
- Chair of organising committee, Fifth International Conference on Heat Transfer, Fluid Mechanics and

Thermodynamics, HEFAT2007, Sun City, South Africa, 150 papers, 1 to 4 July 2007.

- Member of the International Scientific Committee, WSEAS Conference on Fluids and Heat and Mass Transfer, Vouliagmeni Beach, Crete, Greece, 25-27 August 2007.
- Coordinating Scientist for the International Heat and Mass Transfer Conference, 19th National and 8th ISHMT-ASME HMT Conference, Hyderabad, India, 3-5 January 2008.
- Member of Scientific Committee, ECOS'08, Krakow, Poland, 2008.
- Member of the International Advisory Committee on Computational Mechanics, Sun City, 7 to 11 January 2009.
- Lead Scientist of the Seventh World Conference on Experimental Heat Transfer, Fluid Mechanics and Thermodynamics (ExHFT-7), Krakow, 28 June to 3 July 2009.
- Member of the International Scientific Committee, 6th International Symposium on Multiphase Flow, Heat, Mass Transfer, and Energy Conversion, Xi'an Jiaotong University, 11 to 15 July 2009.
- Member of the Scientific Committee, International Workshop on Hydrogen, Rabat, Morocco, 29 - 30 October 2009.
- Member of the Scientific Committee of ICCHMT 09, 6th International Conference on Computational Heat and Mass Transfer, Guangzhou, China, 18 - 21 May 2009.
- Chair of organising committee, Sixth International Conference on Heat Transfer, Fluid Mechanics and Thermodynamics, HEFAT2008, Pretoria, 150 papers, 30 June to 2 July 2008.
- Member of the Scientific Advisory Board of the Dubrovnik 2009 Conference on Sustainable Development of Energy, Water and Environmental Systems, 30 September – 3 October 2009.
- Conference Chair of the 7th International Conference on Heat Transfer, Fluid Mechanics and Thermodynamics (HEFAT2010), Antalya, 450 papers, 19 – 21 July 2010.
- Coordinating Scientist of the ASME and the Indian Society of Heat and Mass Transfer (ISHMT), IIT Bombay, January 2010.
- Member of the Scientific Committee, 11 th UK National Heat Transfer Conference, September 2009.
- Session Chair: 7th World Conference on Experimental Heat Transfer, Fluid Mechanics and Thermodynamics, Krakow, Poland, 28 June – 3 July 2009.
- Member of the Assembly of World Conferences on Experimental Heat Transfer, Fluid Mechanics and Thermodynamics (expire after the 9th World Conference on Experimental Heat Transfer, Fluid Mechanics and Thermodynamics).
- Member of the International Steering Committee, International Conference on Mechanical Engineering – ICOME, Naples, Italy, 8 – 10 June 2010.
- Member of the International Steering Committee, Clean Energy Technologies and Energy Efficiency for Sustainable Development, ENERCON 2010, Dehradun, India, 25 – 27 June 2010.
- Session chair and co-chair (twice) at the 14th International Heat Transfer Conference (IHTC-14), Washington, 8 – 13 August 2010.
- Session chair at the CHISA 2010 Conference, Prague, 31 August 2010.
- Member of the International Advisory Committee, International Conference on Thermal Energy and Environment, India, 24 – 27 March 2011.
- Member of the International Advisory Committee, Second African Conference on Computational Mechanics, Cape Town, 5 – 8 January 2011.
- Member of the Scientific Advisory Board, Conference on Sustainable Development of Energy, Water and Environmental Systems, Dubrovnik, 2011.
- Member of the International Advisory Committee, International Conference on Thermal Energy and Environment, INCOTEE 2011, Kalasalingam University, India, 24 – 26 March 2011.
- Member of the International Scientific and Advisory Committee, International Workshop on Heat Transfer Advances for Energy Conservation and Pollution Control (IWHT'2011), Xi'an, Shaanxi, 18 – 21 October 2011.
- Member of the International Advisory Committee, International Conference on Energy, Economy and Environment, National Institute of Technology Calicut, India, December 2011.
- Member of the Scientific Committee, 8th World Conference on Experimental Heat Transfer, Fluid Mechanics and Thermodynamics, Lisbon, 24 – 27 June 2013.
- Member of the International Scientific Committee of the 60th anniversary of the AV Luikov Heat and Mass Transfer Institute of the National Academy of Sciences of Belarus, 13 September 2012.
- Conference Chair of the 8th International Conference on Heat Transfer, Fluid Mechanics and Thermodynamics (HEFAT2011), Pointe Aux Piments, Mauritius, 150 papers, 11 – 13 July 2011.

- Member of the Scientific Advisory Board, 7th Conference on Sustainable Development of Energy, Water and the Environmental Systems, Ohrid, Macedonia, 1 – 6 July 2012.
- Member of the Scientific Advisory Board and member of the organizing committee, Third International Forum on Heat Transfer (IFHT2012), Nagasaki, 13 – 15 November 2012.
- Member of the Advisory Committee of the Energy and Materials Research Conference (EMR2012), Torremolinos (Spain), 20-22 June 2012.
- Chair of keynote speaker, International Symposium on Advances in Computational Heat Transfer, CHT12, Bath, 1– 6 July 2012.
- Conference Chair of the 9th International Conference on Heat Transfer, Fluid Mechanics and Thermodynamics (HEFAT2012), Malta, 300 papers, 16 – 18 July 2012.
- Member of the International Organizing Committee, 7th International Symposium on Multiphase Flow, Heat Mass Transfer and Energy Conversion (ISMF2012), State Key Laboratory of Multiphase Flow in Power Engineering, Xi'an Jiaotong University, 26 – 30 October 2012.
- Member of the International Scientific Advisory Board, Technologies for Sustainable Development (ICERTSD 2013), West-Bengal, 7 – 9 February 2013.
- Member of the International Scientific Committee, 4th International Micro and Nano Flow Conference (MNF2013), Edinburg University, 21 – 23 August 2013.
- Member of the International Advisory Board, 2nd Annual Convention on Climate Change and Water, Suresh Gyan Vihar University, Jagatpura, India, November 2013.
- Coordinating Scientist of the 22nd ISHMT and 11th ASME Heat and Mass Transfer Conference, Indian Institute of Technology Kharagpur, December 2013.
- International Advisory Board of the Conference SGVU-C3W 2013, Jaipar, October 2013.
- Member of the International Advisory Board of the International Conferences on Advances in Mechanical Engineering, Penu, 29 – 31 May 2013.
- Member of the Organising Advisory Committee of the Second Southern Africa Energy Conference (SASEC2014), 27 – 29 January 2014.
- Member of the Scientific Committee, Constructal Law Conference, Nanjing, China, 14-15 October 2013.
- Session chair, Interdisciplinary areas in heat and fluid flow, 8th World Conference on Experimental Heat Transfer, Fluid Mechanics and Thermodynamics, Lisbon, 16 – 20 June 2013.
- Session chairs on Bioenergy and enhanced heat transfer, Fifth International Conference on Applied Energy (ICAE2013), Pretoria, 2 – 4 July 2013.
- Member of the Advisory Committee, Symposium on Engineering & Technology (ISET-2014), Trinity College of Engineering and research, Pune, India, 9 -10 January 2014.
- Regional Editor of the International Heat Transfer Conference, Japan, 10 – 15 August 2014.
- Member of the International Advisory Committee, Second International Conference on Applications of Fluid Dynamics, (ICAFD-2014), S.V. University, Tirupati, India, 21-23 July 21-23 2014.
- Conference Chair of the 10th International Conference on Heat Transfer, Fluid Mechanics and Thermodynamics (HEFAT2014), Orlando, 300 papers, 14 – 16 July 2014.
- Member of the Scientific Committee of the 4th Micro and Nano Flows Conference, University College London, 7-10 September 2014.
- Member of the International Scientific Committee, Sixth International Symposium on Advances in Computational Heat Transfer, New Brunswick, NJ, 25 – 29 May 2015.
- Member of the Scientific Committee of the 9th Constructal Law and Second Law Conference, Parma, Italy, 18 - 19 May 2015.
- Member of the International Advisory Committee, International Conference on Energy Systems and Developments 2015 (ICESD 2015) Trinity College of Engineering and research, Pune, India, 11-13 February 2015.
- Member of the International Scientific Committee, International Conference on Materials and Energy (ICOME), Morocco, 19 – 22 May 2015.
- Conference Chair of the 11th International Conference on Heat Transfer, Fluid Mechanics and Thermodynamics (HEFAT2015), Skukuza, 130 papers, 20 – 23 July 2015.
- Coordinating Scientist, Biennial Heat and Mass Transfer conference in association with ASTFE and ICHMT, Trivandrum, 17 – 20 December 2015.
- Conference Chair of the 12th International Conference on Heat Transfer, Fluid Mechanics and Thermodynamics (HEFAT2016), Costa del Sol, 300 papers, 11 – 13 July 2016.

- Member of the organizing Committee of the 4th International Forum on Heat Transfer (IFHT2016), Heat Transfer Society of Japan, Sendai, Japan, 2 – 4 November 2016.
- Member of the International Advisory Committee, Second International Conference on Thermal Energy and Environment, INCOTEE 2016, Kalasalingam University, India, 25 – 26 March 2016.
- Member of the Advisory Board, International Symposium on Advances in Thermo-Fluid Sciences, 29 – 30 September 2016.
- Lead Scientists, 9th World Conference on Experimental Heat Transfer, Fluid Mechanics and Thermodynamics (ExHFT-9), Iguazu Falls, Brazil, 12 – 15 June 2017.
- Member of the International Advisory Committee, International Symposium on Advances in Computational Heat Transfer, Naples, Italy, 28 May – 2 June 2017.
- Conference Chair of the 13th International Conference on Heat Transfer, Fluid Mechanics and Thermodynamics (HEFAT2017), Portorož, 200 papers, 17 – 19 July 2017.
- Member of the International Scientific Committee, 10th International Conference on Boiling and Condensation Heat Transfer, Nagasaki,12 – 15 March 2018.
- Session chair, Sixth International Association of Science and Technology for Development (IASTED) International Conference, Gaberone, 5 – 7 September 2016.
- Scientific committee, 7th International Symposium on Advances in Computational Heat Transfer (CHT-17), Napoli, Italy, 8 May - 1 June 2017.
- Member of the International Technical Advisory Committee, 24th National and 2nd International ISHMT-ASTFE Heat and Mass Transfer Conference (IHMTC-2017), BITS Pilani, Hyderabad Campus, 27 – 30 December 2017.
- Member of the International Advisory Board, International Conference on Advances in Science and Technology, 17 – 19 March 2017.
- Member of the Technical Committee, 3rd International Conference on Mechanical Engineering and Automation Science (ICMEAS 2017), University of Birmingham during, 13-15 October 2017.
- Member of the International Advisory Board, 25th National and 3rd International ISHMT-ASTFE Heat and Mass Transfer Conference (IHMTC-2019). Roorkee, India, 27-30 December, 2019.
- Member of the Scientific Committee, 1st International Conference of Nanofluids and the 2nd European Symposium of Nanofluids, Castellon, 24-26 June 2019.
- Vice President, The Assembly for International Heat Transfer Conferences, August 2018 – present.
- Member of the Scientific Committee, 37th UIT Heat Transfer Conference, Padova, 24 – 26 June 2019.
- Conference Chair of the 14th International Conference on Heat Transfer, Fluid Mechanics and Thermodynamics (HEFAT2019), Wicklow, 260 papers, 22 – 24 July 2019.
- Leading member of the scientific committee of the 28th Annual International Conference of Iranian Society of Mechanical Engineering organized by the Iranian Society of Mechanical Engineering, 27 – 29 May 2020.
- Member of the International Advisory Committee, Recent Trends in Developments of Thermo-fluids and Renewable Energy, 22 – 30 June 2020.
- Recent Trends in Developments of Thermo-fluids and Renewable Energy, 22 – 30 June 2020.
- Member of the International Scientific Committee, 8th International Symposium on Advances in Computational heat Transfer, hybrid formnat, Rio de Janeiro, 15 – 19 August 2021.
- Member of the International Scientific Committee, Alternative Energy Sources, Materials and Technologies (AESMT'21), Ruse, Bulgaria, 14 - 15 June, 2021.
- Conference Chair of the 15th International Conference on Heat Transfer, Fluid Mechanics and Thermodynamics (HEFAT2021), Online, 380 papers, 26 – 28 July 2021.

External research supervision

- Christophe T'Joen, PhD, member of external guidance committee, University of Ghent, 2005.

Technical committees

- Department of Mineral and Energy Affairs - Launching committee for the development of computer software for the design of energy-efficient buildings, 1992 and 1993.
- Corresponding member of the Technical Committee TC1.4 (Heat Transfer) of the American Society of Heating, Refrigeration and Air-Conditioning Engineers (ASHRAE), 1998 - 2004
- Corresponding member of the Technical Committee TC8.4 (Air to refrigerant heat transfer equipment) of the American Society of Heating, Refrigeration and Air-Conditioning Engineers (ASHRAE), 1998 - the present.
- Corresponding member of the Technical Committee TC8.5 (Liquid to refrigerant heat transfer equipment) of the

American Society of Heating, Refrigeration and Air-Conditioning Engineers (ASHRAE), 1998 – 2002.
- International member of the Technical Committee TC8.5 (Liquid to refrigerant heat transfer equipment) of the American Society of Heating, Refrigeration and Air-Conditioning Engineers (ASHRAE), 2002 - the present.
- International member of the Technical Committee TC1.4 (Heat Transfer) of the American Society of Heating, Refrigeration and Air-Conditioning Engineers (ASHRAE), 2004 - the present.
- Board member of the Department of Trade and Industry-sponsored, National Aerospace Centre of Excellence (NACoE), 2006 – 2009.

Organisation of short courses
- Compact heat exchangers, Dr R Shah, Delphi Harrison Thermal Systems, General Motors Corporation, 18 – 19 April 2000.
- Evaporative cooling towers for industrial and refrigeration applications, Dr Paul Erens, Industrial Water Cooling, 5 – 6 June 2000.
- Solar Systems – Opportunities for competitive products, Dr Henry Healey, Florida Alternative Corporation, 1 – 2 November 2000.
- Reliability-centred Maintenance, Jasper L Coetzee, M-Tech , 13 – 15 March 2001.
- Delivering customer value – reengineering at the interface, Dr Kelvin Kemm and Joe Aspinall, STRATEK , 23 – 24 April 2001.
- Maintenance Fundamentals for Maintenance and Production Executives, Jasper L Coetzee and Pieter-Jan Vlok, 24 – 26 May 2001.
- Eco-labelling and industrial manufacturing, Dr Kelvin Kemm and Joe Aspinall, STRATEK, 8 – 9 May 2001.
- Problem solving skills for maintenance practitioners, Jasper L Coetzee and Ronel Kotzé, M-Tech, 15 – 17 May 2001.
- The environmental challenge to industry, Dr Kelvin Kemm and Mr Leon Louw, STRATEK, 29 – 30 May 2001.
- Project management, Deon Kruger, University of Johannesburg, 6 – 8 June 2001.
- Maintenance fundamentals for maintenance and production executives, Jasper L Coetzee, M-Tech, 5 – 7 June 2001.
- Technology and economics, Dr Kelvin Kemm and Leon Louw, STRATEK, 12 – 13 July 2001.
- Lateral thinking and problem-solving in industry, Dr Kelvin Kemm and Leon Louw, STRATEK, 19 – 20 July 2001.
- Project management, Deon Kruger, University of Johannesburg, 18 – 20 September 2001.
- The First Southern Hemisphere Workshop on Constructal Theory and Design in Nature and Engineering, Adrian Bejan, Sylvia Lorente, Tunde Bello-Ochende, Antonio Reis and Antonia Miguel, University of Pretoria, 2 March 2007.

Research visits
- JSPS (Japan Society for the Promotion of Science) fellowship, Kyushu and Kobe Universities, Japan, 13 March 2004 to 2 April 2004.

Research seminars by invitation
- Heat Transfer Society of Japan, The characterisation of flow regimes during refrigerant condensation in smooth and enhanced tubes: power spectral density distribution of pressure signals, Kyushu University, Japan, March 2004.
- Kobe University, Kobe University, Japan, The characterisation of flow regimes during refrigerant condensation in smooth and enhanced tubes: power spectral density distribution of pressure signals, March 2004.
- University of Illinois, Condensation flow regime maps during refrigerant condensation, June 2005.
- EPFL, Switzerland, Overview of thermoflow research at the University of Pretoria, November 2008.
- University of Ghent, Belgium, Single phase heat transfer and pressure drop inside horizontal tubes with different inlet configurations for transitional flow, November 2008.

International rankings
- Times Higher Education's World University Rankings via Thomson Reuters, participates in the review, 2011 – present.

REFEREEING MANUSCRIPTS FOR SCHOLARLY JOURNALS

Reviewed a minimum of three or more manuscripts for the following journals:

- Aeronautica Meridiana
- Applied Thermal Engineering
- ASME Journal of Solar Energy Engineering
- AIAA: Journal of Aircraft
- AIAA: Journal of Thermophysics and Heat Transfer
- Applied Energy
- ASHRAE Transactions
- Chemical Engineering and Processing: Process Intensification
- Computational Thermal Sciences
- Experimental Heat Transfer
- Experimental Thermal and Fluid Science
- Energy - The International Journal
- Heat and Mass Transfer
- Heat Transfer Engineering
- Heat Transfer Journal
- International Journal of Applied Thermodynamics
- International Journal of Building and Environment
- International Journal of Energy Research
- International Journal of Energy Technologies and Policy (IJETP)
- International Journal of Heat and Mass Transfer
- International Journal of Multiphase Flow
- International Journal for Numerical Methods in Fluids
- International Journal of Refrigeration
- International Journal of Thermal Sciences
- International Journal of Thermal Sciences
- International Journal of Thermal Sciences
- Journal of Enhanced Heat Transfer
- Journal of Heat Transfer
- Journal of Molecular Liquids
- Microgravity – Science and Technology
- Numerical Heat Transfer
- Oil & Gas Science and Technology-Revue d'IFP Energies nouvelles
- Research and Development Journal
- Solar Energy Journal
- The Open Thermodynamics Journal
- Water SA
- Chemical Engineering Research and Design
- World Journal of Engineering

5. AWARDS

Academic (as student)

- University colours from the University of Pretoria for Academic Achievement, 1986 and 1988.

Medals (military service)

- General Service medal from the South African Defence Force for the period 1988 and 1989 for "defending the Republic of South Africa in the conservation of life, health and property".

Visiting professor/scholar awards/ sabbaticals

- Fellowship, Japan Society for the Promotion of Science (JSPS), to conduct research in Japan. Granted only to senior scientists, university professors, and other persons with substantial professional experience, 2004
- Kobe University, Kobe University, Japan, March 2004.
- Kobe University, Kobe University, Japan, The characterisation of flow regimes during refrigerant condensation in smooth and enhanced tubes: power spectral density distribution of pressure signals, March 2004.
- University of Illinois, Condensation flow regime maps during refrigerant condensation, June 2005.
- EPFL, Switzerland, Overview of thermoflow research at the University of Pretoria, November 2008.
- University of Ghent, Belgium, 2008.
- EPFL, École Polytechnique Fédérale de Lausanne, 2009.
- University of Ghent, Belgium, Single phase heat transfer and pressure drop inside horizontal tubes with different inlet configurations for transitional flow, November 2008.
- Will Stoecker family scholar, 2016, University of Illinois Urbana Champaign. Some of the previous Will Soecker family scholars were A. Cavallini, E. Granryd, B. Tao, C. Infante Ferreira, H. Kruse, etc., University of Illinois at Urbana-Champaign, October 2016.
- Imperial College London, short sabbatical, June/July 2018.
- University of Edinburg, short sabbaticals, July 2018/July 2019
- Tianjin University, short visit, July 2018

Teaching/education

- At the North-West University, twice received a Special Award for Teaching on the basis of "proven excellent teaching". This award, named the "VERKA Award" is only awarded every three years and I received it consecutively for 1990 and 1993.
- Lecturer of the year, Faculty of Engineering, University of Johannesburg, 2000.
- Nomination for a Teaching Innovation Award, University of Pretoria, 2006 and 2008.
- Africa Leadership Award (Education): "Outstanding professionals who have the vision, flair, acumen, and professionalism to demonstrate excellent leadership and management skills in an organization, making changes and achieving results", Stars of the Industry Group, 10 December 2014.
- AIRBUS diversity award: Diversity in engineering education, shortlisted in the top ten, 21 August 2015.
- Best Professor in Mechanical and Aeronautical Engineering. For: "This award of the highest stature is presented to an individual who has surpassed several levels of its excellence and set an example of being a role model of exemplary leadership. An individual behind the institution who is building his institution through leadership, innovation, academic and industry interface and a supreme objective of building future leaders", World Education Congress, Mauritius, 27 November 2013.
- Faculty of Engineering, Built Environment, and Information Technology, University of Pretoria, Teaching and Learning Award, 2016.

University of Pretoria Awards

- University of Pretoria Exceptional Achiever (five times): Senior academics who have already achieved professional status and who have maintained continuous exceptional achievement in the fields of under- and postgraduate teaching and learning, research, community service and administration, and who enjoy exceptionally high stature among their peers (for the periods 2004 to 2006, 2007 to 2009, 2010 to 2012, 2013 to 2015, 2017 - 2019).
- Vice Chancellor's Exceptional Supervisor Award in recognition of exceptional achievement in supervision. Award by the Vice-Chancellor of the University of Pretoria for consistent and very high quality work as a supervisor/advisor of graduate students, 5 April 2016.
- Chancellor's Award for Research for sustained excellent performance, in recognition of exceptional achievement in research and the associated promotion of the University of Pretoria, May 2019.

Presigous lectures by special invitation

- MEYER JP; The characterisation of flow regimes during refrigerant condensation in smooth and enhanced tubes: power spectral density distribution of pressure signals, Heat Transfer Society of Japan, Kyushu University, Japan, March 2004.
- MEYER JP; The characterisation of flow regimes during refrigerant condensation in smooth and enhanced tubes: power spectral density distribution of pressure signals, Kobe University, Kobe University, Japan, March 2004.
- MEYER JP; Condensation flow regime maps during refrigerant condensation, University of Illinois at Urbama

Champaign, June 2005.
- MEYER JP; Enhanced heat transfer, EPFL Luassane, Switzerland, November 2008.
- MEYER JP; Single phase heat transfer and pressure drop inside horizontal tubes with different inlet configurations for transitional flow, University of Ghent, Belgium, November 2008.
- MEYER JP; Heat transfer in the transitional flow regime, I^2CNER seminar series for first-rate researchers, International Institute for Carbon-neutral Energy Research, Kyushu University, 8 August 2014.
- MEYER JP; Who knows what the heat transfer will be in the transitional flow regime? King Fahd University of Petroleum and Minerals, 22 March 2016.
- MEYER JP; A new fundamental approach to design heat exchangers based on the constructal theory, International Advisory Board Meeting of the Air Conditioning and Refrigeration Center of the University of Illinois at Urbana-Champaign, 6 October 2016.

Best article/papers
- Thomas Price Award in 1988. Awarded by the South African Institute of Mechanical Engineers for original research published in the 1986 issue of the Research and Development Journal.

- Rand Coal Award in 1994 together with WM Marx (postgraduate student). Awarded by the South African Institute of Mechanical Engineers for original research published in 1993 in the Research and Development Journal.

- South African Institute of Mechanical Engineers Bronze Medal for 1998 together with S van den Vyver. Awarded by the Institute for original research published in 1997 in the Research and Development Journal for the paper entitled “Heat transfer augmentation in the annulus of a heat exchanger consisting of a round tube inside a twisted square tube”.

- South African Institution of Mechanical Engineers, LT Campbell-Pitt Award for 1999, together with H Herman. Awarded by the Institute for original research published in 1998 in the Research and Development Journal for the paper entitled “Heat transfer augmentation of a spiralled tube inside the annulus of a tube-in-tube heat exchanger”.

- Silver Medal Award (2001) of the South African Institution of Mechanical Engineering together with two students (S Coetzee and W da Veiga) for the best paper published in 2000 in the Research and Development Journal entitled: “Condensation in an annulus with spiralled wires”.

- Literati Network Awards for Excellence 2008. Outstanding Paper Award Winner for the best of 40 papers published in 2007 in the International Journal of Numerical Methods for Heat & Fluid Flow: (DIRKER J, MALAN AG and MEYER JP; Thermal characterization of rectangular cooling shapes in solids, International Journal of Numerical Methods for Heat and Fluid Flow, Vol. 17, No. 4, pp. 361 - 383, 2007).

- Outstanding paper award for the best paper in the session on “Thermodynamics, Heat and Mass Transfer III” presented to Olakoyejo O, Bello-Ochende T and Meyer JP for the paper “Geometric optimization of forced convection in a vascularised material”, Proceedings of the 8th International Conference on Heat Transfer, Fluid Mechanics and Thermodynamics, Pointe Aux Piments, Mauritius, pp. 666 - 674, 11 – 13 July 2011.

- Outstanding paper award for the best paper in the session on “Thermodynamics, Heat and Mass Transfer III” presented to Meyer JP and Hallquist M for the paper “Heat transfer coefficients for laminar to turbulent flow in tubes at constant heat flux”, Proceedings of the 8th International Conference on Heat Transfer, Fluid Mechanics and Thermodynamics, Pointe Aux Piments, Mauritius, pp. 675 - 680, 11 – 13 July 2011.

- Outstanding paper award for the best paper in the session on “Heat Exchangers 2” presented to Garach DV, Dirker J and Meyer JP for the paper “Heat transfer and pressure drop in microchannels with different inlet conditions for water in the laminar and transitional flow regimes” Proceedings of the Ninth International Conference on Heat Transfer, Fluid Mechanics and Thermodynamics (HEFAT2012), Malta, pp. 763 - 770, 16 – 18 July 2012.

- Outstanding paper award for the best paper in the session on “Heat and Mass Transfer 5” presented to Vadasz J, Meyer JP, Govender S, and Ziskind G for the paper “Vibration effects on heat transfer during solidification of

paraffin", Proceedings of the Ninth International Conference on Heat Transfer, Fluid Mechanics and Thermodynamics (HEFAT2012), Malta, pp. 1139 - 1147, 16 – 18 July 2012.

- Outstanding paper award for the best paper in the session on "Experimental Methods" presented to Van der Westhuizen JE, Dirker J and Meyer JP for the paper "Investigation into using liquid crystal thermography for measuring heat transfer coefficients and wall temperature profiles at inlets and underdeveloped regions", Proceedings of the 10th International Conference on Heat Transfer, Fluid Mechanics and Thermodynamics (HEFAT2014), Orlando, pp. 732 – 740, 14 – 16 July 2014.

- Outstanding paper award for the best paper in the session on "Solar Energy 1" presented to Le Roux WG, Bello-Ochende T and Meyer JP; Optimisation of an open rectangular cavity receiver and recuperator used in a small-scale solar thermal Brayton cycle with thermal losses, Proceedings of the 10th International Conference on Heat Transfer, Fluid Mechanics and Thermodynamics (HEFAT2014), Orlando, pp. 499 – 507, 14 – 16 July 2014.

- Best paper at conference: ALAM MM, REHMAN S, AL-HADHRANI LM, RUSSEL M and MEYER JP; Quantifying the contributions of different time-scales to wind speed using wavelets, Proceedings of the International Conference on Mechanical Industrial and Energy Engineering, paper number ICMIEE-PI-140386, Khulna, Bangladesh, 25 – 26 December 2014.

- Applied Energy ICAE2013 Best Paper Award for: MWESIGYE A, BELLO-OCHENDE T and MEYER JP; Heat transfer and thermodynamic performance of a parabolic through receiver with centrally placed perforated plate inserts, Applied Energy, Vol. 136, pp. 989 – 1003, 2014. Award ceremony at the International Conference on Applied Energy, Abu Dhabi, 28 March 2015.

- Outstanding paper award for the best paper in the session on "Concentrated Solar Power" presented to Rungasamy A, Craig K and Meyer JP; Receiver optimization for an Etendue conserving compact linear Fresnel, Proceedings of the Third Southern African Solar Energy Conference, Skukuza, Kruger National Park, pp. 266 - 271, 11 – 13 May 2015.

- Outstanding paper award for the best paper in the session on "Solar Thermal (Heat transfer)" presented to Everts M and Meyer JP; Heat transfer characteristics of developing flow in the transitional flow regime of a solar receiver tube, Proceedings of the Third Southern African Solar Energy Conference, Skukuza, Kruger National Park, pp. 224 - 229, 11 – 13 May 2015.

- Outstanding paper award for the best paper in the session on "Solar Thermal (Heat transfer and fluid mechanics) presented to Le Roux W, Meyer JP and Bello-Ochende T; Experimental testing of a tubular cavity receiver for a small-scale solar thermal Brayton cycle, Proceedings of the Third Southern African Solar Energy Conference, Skukuza, Kruger National Park, pp. 295 - 300, 11 – 13 May 2015.

- Outstanding paper award for the best paper in the session on "Concentrated Solar Power" presented to Marais M, Craig K and Meyer JP; Computational investigation of worst-case wind loads on a heliostat pod for different reflector aspect ratios, Proceedings of the Third Southern African Solar Energy Conference, Skukuza, Kruger National Park, pp. 525 - 530, 11 – 13 May 2015.

- Outstanding paper award for the best paper in the session on "Convection heat transfer" presented to GARBADEEN ID, SHARIFPUR M, SLABBER J and MEYER JP; Numerical study on natural convection of MWCNT nanofluids in an enclosure based on experimental conductivity an viscosity, Proceedings of the 11th International Conference on Heat Transfer, Fluid Mechanics and Thermodynamics (HEFAT2015), Skukuza, pp. 493–498, 20 – 23 July 2015.

- Best paper award for the paper in the session on "Convective Heat Transfer 1" presented to Everts, M and Meyer JP for the paper "Comparison of the heat transfer characteristics of developing and fully developed flow in smooth tubes in the transitional flow regime", Proceedings of the 12th International Conference on Heat Transfer, Fluid Mechanics and Thermodynamics (HEFAT2016), Malaga, Spain, pp. 495-504, 11-13 July 2016.

- Gold Award. TORR A, CRAMER L, MAHMOOD GI, and MEYER JP; Enhancement of the thermal performance of solar heat exchangers with porous inserts, NRF Renewable and Sustainability Energy Postgraduate Symposium, University of Fort Hare, 5 – 6 September 2016.

- Platinum Award. EVERTS M and MEYER JP; Heat transfer characteristics of developing and fully developed flow in the transitional flow regime of a parabolic through receiver tube, NRF Renewable and Sustainability Energy Postgraduate Symposium, University of Fort Hare, 5 – 6 September 2016.

- Gold Award. PALLENT M, JOUBERT M, and MEYER JP; The influence of multiple tube inlet condition on heat transfer and friction factor for flow in a concentrated solar power system in the transitional flow regime, NRF Renewable and Sustainability Energy Postgraduate Symposium, University of Fort Hare, 5 – 6 September 2016.

- Outstanding paper award for the best paper in the session on Air Conditioning and Refrigeration presented to BASHIR AI and MEYER JP; Heat Transfer in the Laminar and Transitional Flow Regimes of Smooth Vertical Tube for Upflow Direction, 13th International Conference on Heat Transfer, Fluid Mechanics and Thermodynamics (HEFAT2017), pp. 29-34, Portorož, 17-19 July 2017.

- Outstanding paper award for the best paper in the session on Heat Exchanger 1 presented to EVERTS M and MEYER JP; Influence of Free Convection on the Heat Transfer Characteristics of Developing and Fully Developed Flow in the Transitional Flow Regime, 13th International Conference on Heat Transfer, Fluid Mechanics and Thermodynamics (HEFAT2017), pp. 652-661, Portorož, 17-19 July 2017.

- Outstanding paper award for the best paper in the session on Multiphase Flow 2 presented to NOORI RAHIM ABADI SMA and MEYER JP; Numerical Investigation of Condensation Inside an Inclined Smooth Tube, 13th International Conference on Heat Transfer, Fluid Mechanics and Thermodynamics (HEFAT2017), pp. 1038-1043, Portorož, 17-19 July 2017.

- Associate of Mine Managers of South Africa Prize for article published of KEMPSON WJ, WEBBER-YOUNGMANN RCW and MEYER JP; Application of computational fluid dynamic modelling in the design of shaft systems, Journal of the Mine Ventilation Society of South Africa, Vol. 70, no. 3, 24 - 32, 2017.

- Outstanding paper award for the best paper in the session on “Convection heat transfer” presented to BASHIR AI, EVERTS M, BHATTACHARYA S and MEYER JP; Effect of inclination buoyancy on the fully developed friction factors in the laminar and transitional flow regimes in smooth tube, Proceedings of the 14th International Conference on Heat Transfer, Fluid Mechanics and Thermodynamics (HEFAT2019), Wicklow, 22 – 24 July 2019.

- Outstanding paper award for the best paper in the session on “Heat exchangers 1” presented to ABOLARIN SM, EVERTS M and MEYER JP; Pressure drop characteristics of transitional flow through a smooth tube with peripheral u-cut twisted tape inserts, Proceedings of the 14th International Conference on Heat Transfer, Fluid Mechanics and Thermodynamics (HEFAT2019), Wicklow, 22 – 24 July 2019.

- Outstanding paper award for the best paper in the session on “Boiling 2” presented to VAN DEN BERGH WJ, DIRKER J, MARKIDES CN and MEYER JP; Preliminary investigation into the effect of step changes in boiling heat flux on R134a in a horizontal macro tube, Proceedings of the 14th International Conference on Heat Transfer, Fluid Mechanics and Thermodynamics (HEFAT2019), Wicklow, 22 – 24 July 2019.

- Outstanding paper award for the best paper in the session on “Heat transfer enhancement” presented to CRAIG KJ, QUICK M, SLOOTWEG M and MEYER JP; Numerical investigation of jet impingement heat transfer in solar receivers, Proceedings of the 14th International Conference on Heat Transfer, Fluid Mechanics and Thermodynamics (HEFAT2019), Wicklow, 22 – 24 July 2019.

- Best student paper (one of only five awards out of a total of 126 papers): BASHIR AI, EVERTS M and MEYER JP; Experimental investigation of transitional flow forced convection heat transfer through a smooth vertical tube with a square-edged inlet, UK National Heat Transfer Confertemnce, Nottingham, paper 042, 8 – 10 September 2019.

- Outstanding paper award for the best paper in the session on "Convection heat transfer 3" presented to EVERTS M and MEYER JP; Thermal entrance lengths for simultaneously hydrodynamically and thermally forced and mixed convective flow through horizontal tubes, Proceedings of the 15th International Conference on Heat Transfer, Fluid Mechanics and Thermodynamics (HEFAT2021), Online, 25 – 28 July 2021.

Postgraduate student awards

- Vorster PPJ, Vice-Chancellor Award for best dissertation, University of Johannesburg, 1998.
- Da Veiga R, Vice-Chancellor Award for best dissertation, University of Johannesburg, 1999.
- Da Veiga WR, Vice-Chancellor Award for best dissertation, University of Johannesburg, 2000.
- Coetzee S, Vice-Chancellor Award for best dissertation, University of Johannesburg, 2001.
- Olivier JA, Vice-Chancellor Award for best dissertation, University of Johannesburg, 2001.
- Olivier JA, S2A3 medal by the South African Association of Scientific Achievement for best master's degree, 2001.
- Owaga D, Vice-Chancellor Award for best dissertation, University of Johannesburg, 2003.
- Van Rooyen E, SASOL Merit Medal for the best Master's degree, 2007
- Everts M, Winner of the 2013 Eskom Academic Award for University Students (one national award per annum), 2013.
- Everts M, S2A3 medal by the South African Association of Scientific Achievement for best master's degree, 2015.
- Everts M, TATA PhD Africa Scholarship in Science, Engineering and Technology recognizing outstanding ability and potential in research, (three national awards), 2015/2017.
- Everts M, L'ORÉAL-UNESCO for women in science. Sub-Saharan Africa post-doctoral award, Nairobi, 2018. To recognize and reward talented young female scientists in the field of Life Sciences (such as biology, biochemistry, biophysics, genetics, physiology, neurosciences, biotechnologies, ecology and ethology) as well as Physical Sciences (such as physics, chemistry, petroleum engineering, mathematics, engineering sciences, information sciences, and earth and universe sciences). There was a total of 488 nominations and this was one of only two postdoctoral fellowships that were awarded in the Sub-Saharan African region.

Research

- Thomas Price Award in 1988. Awarded by the South African Institute of Mechanical Engineers for original research published in the 1986 issue of the Research and Development Journal.

- Rand Coal Award in 1994 together with WM Marx (postgraduate student). Awarded by the South African Institute of Mechanical Engineers for original research published in 1993 in the Research and Development Journal.

- South African Institute of Mechanical Engineers Bronze Medal for 1998 together with S van den Vyver. Awarded by the Institute for original research published in 1997 in the Research and Development Journal for the paper entitled "Heat transfer augmentation in the annulus of a heat exchanger consisting of a round tube inside a twisted square tube".

- South African Institution of Mechanical Engineers, LT Campbell-Pitt Award for 1999, together with H Herman. Awarded by the Institute for original research published in 1998 in the Research and Development Journal for the paper entitled "Heat transfer augmentation of a spiralled tube inside the annulus of a tube-in-tube heat exchanger".

- Silver Medal Award (2001) of the South African Institution of Mechanical Engineering together with two students (S Coetzee and W da Veiga) for the best paper published in 2000 in the Research and Development Journal entitled: "Condensation in an annulus with spiralled wires".

- Chairman's Award of the South African Institute for Refrigeration and Air conditioning (SAIRAC) for "Seminal research contributions over the past 25 years in the field of heat transfer with specific reference to the understanding and quantification of: (1) heat pumps, (2) optimum geometries of enhanced tubes, (3) the influence of different types of inlets on transition, and (4) condensation heat transfer at different inclination angles. All of this work is directly related to the development of more energy efficient equipment, which is widely used today in the air conditioning and refrigeration industry", 22 August 2015.

- National Science and Technology Forum (NSTF), Engineering Research Capacity for Development Award by an individual over the last 5 – 10 years for: "developing large numbers of engineering research graduates of the highest quality", 30 July 2020.

6. STANDING AS A RESEARHER

National Research Foundation evaluations

- Evaluated in 1992 by the Foundation of Research Development as a Y-class researcher. These acknowledged researchers (normally younger than 35 years of age) who obtained their doctoral degrees not more than five years prior to evaluation and who, on the basis of their performance as researchers during their doctoral studies and/or early post doctoral research careers, as indicated by their research outputs, are recognised as showing promise of establishing themselves as researchers within a five-year period after evaluation.

- Evaluated in 1996 by the Foundation of Research Development as an established C2 researcher who, as individual or member of a team, produces research outputs of an international standard as judged by the science, engineering or technology community, either internationally or locally.

- Evaluated in 2001 by the Foundation of Research Development as an established C1 researcher who, as individual or member of a team, produces research outputs of an international standard as judged by the science, engineering or technology community, either internationally or locally. A C1 category is described as: "While all reviewers concur that the candidate is an established researcher (as described), some of them indicate that he/she already enjoys considerable international recognition for his/her high quality research outputs. (Researchers on the borderline between B and C fall into this group.)"

- Evaluated in 2006 by the Foundation of Research Development as an established B2 researcher who enjoys considerable international recognition for the high quality and impact of their recent research outputs.

- Evaluated in 2011 by the Foundation of Research Development as an established B1 researcher who enjoys considerable international recognition for the high quality and impact of their recent research outputs.

- Evaluated in 2017 by the Foundation of Research Development as an A2 researcher who is unequivocally recognized by their peers as leading international scholars in their field for the high quality and impact of their recent research outputs. Rating is valid from 1 January 2018 – 31 December 2023.

Indicators

- Essential Science Indicators of ISI Web of Knowledge for "highly cited researcher": ranked amongst the top 1% of the world in engineering in three fields: (a) citations, (b) number of papers and (c) citations per paper, 3 February 2014 - present.
- Stanford University's 2% ranking of top Scientist in the World, 2020.

Leadership

- Vice President, The Assembly for International Heat Transfer Conferences, August 2018 – present.

7. RESEARCH OUTPUTS

ORCID nr: 0000-0002-3675-5494
Scopus Author ID: 7406101417

Patents registered

1. MEYER JP, Multi Channel Random Selector, Patent no. 90/4245, 1990.

2. MEYER JP and DE WET JM, Evaporation action cooling unit, Patent no. 93/9393, 1993.

3. MEYER JP and COETZEE H, Twisted strip heat exchanger, Patent 99/5561, 2000.

4. MEYER JP, Heat exchanger with truncated pyramid-shaped projections, Patent 99/7399, 2000.

5. MEYER JP and VAN DER VYVER S, Round tube inside a twisted square tube, heat exchanger, Patent 99/7400, 2000.

6. MEYER JP and VAN DER VYVER H, Heat transfer augmentation of a spiralled tube inside the annulus of a tube-in-tube heat exchanger, Patent 99/7401, 2000.

7. MEYER JP, Fractal heat exchanger for optimum enhanced heat transfer, Patent 99/7398, 2000.

Research reports

1. MEYER JP, MUYA T and VISAGIE J; Potential for hot-water heating with heat pump reticulation in the domestic sector - techno-economic study, Report no: EO9517, Department of Mineral and Energy Affairs, February 1996.

2. MEYER JP; A strategy for the development of an energy performance contracting industry in South Africa, Report no. EDBV9607, Department of Mineral and Energy Affairs, 1997.

3. COETZEE PP and MEYER JP; Evaluation and development of physical water treatment process for reduction of $CaCO_3$ scale, WRC Report No. 836/1/02, 2002.

4. MEYER JP, LIEBENBERG L and OLIVIER JA; Measurement and evaluation of single-phase heat transfer and pressure drop inside enhanced tubes for transition flow, ASHRAE (American Society of Heating, Refrigerating and Air-Conditioning Engineers, Report nr: 1280-RP, 204 pages, August 2008. http://rp.ashrae.biz/page/ASHRAE-D-RP1280-20090922.pdf

Books and book chapters

1. MEYER JP; Heat pumps, International Encyclopaedia of Heat and Mass Transfer, Edited by HEWIT GF, SHIRES GL and POLEZHAEV YV, CRC Press, New York, pp. 562-564, 1997.

2. MEYER JP; Evaluation of energy efficient and environmentally acceptable pure and zeotropic refrigerants in air-conditioning and refrigeration, Edited by BEJAN A, VADÁSZ P and KRÖGER DG, Energy and the Environment, Kluwer Academic Publishers, Dordrecht, pp. 239 – 246, 1999.

3. COETZEE S, DA VEIGA WR and MEYER JP; Condensation of R22 during heat transfer augmentation with spiralled wires in the annulus of a tube-in-tube heat exchanger for hot-water heat pumps, Compact Heat Exchangers and Enhancement Technology for the Process Industries, Edited by SHAH, RK, BELL KJ, HONDA H, and THONON B, Begell house, pp. 377-384, 1999.

4. DA VEIGA WR and MEYER JP; Semicircular heat exchangers, Compact Heat Exchangers and Enhancement Technology for the Process Industries, Editors: SHAH RK, DEAKIN AW, HONDA H and RUDY TM, Begell house, pp. 235 – 239, 2003.

5. MEYER JP and LIEBENBERG L; Flow patterns during condensation in smooth and micro-fin tubes, Compact Heat Exchangers and Enhancement Technology for the Process Industries, Editors: SHAH RK, DEAKIN AW, HONDA H and RUDY TM, Begell house, pp. 267 – 280, 2003.

6. MEYER JP and OLIVIER JA; Heat transfer in the transitional flow regime, Chapter 12, Edited by AHSAN A,

Evaporation, Condensation and Heat Transfer, InTech, pp. 245 – 260, 2011.

7. BELLO-OCHENDE T, OLAKOYEJO OT and MEYER JP; Constructal design of rectangular conjugate cooling channels. Edited by ROCHA LAO, LORENTE S and BEJAN A, Constructal Law and the Unifying Principle of Design, Springer, New York, pp. 177 – 194, 2013.

8. MEYER JP and TANG CC; Convective heat transfer of nanofluids in tubes, Edited by MURSHED SMS and DE CASTRO CN, Nanofluids: Synthesis, Properties and Applications, Nova Science Publishers, Chapter 7, pp. 155 – 192, 2014.

9. LE ROUX WG and MEYER JP; Small-scale dish-mounted solar thermal Brayton cycle, Clean Energy for Sustainable Development: Comparisons and Contrasts of New Approaches. Edited by RASUL MG, AZAD AK, and SHARMA S, Chapter 6, Elsevier, pp. 167 – 190, 2017.

10. MEYER JP, DIRKER J and NOORI RAHIM ABADI SMA; Editor-in-Chief: Thome JR; A review of condensation in inclined tubes, Encyclopedia of two-phase heat transfer and flows III, Set 3, Part 2, Macro and Microscale Flow Boiling and Condensation, World Scientific Publishing Company, pp. 243 – 280, 2018.

11. ADEWUMI GA, INAMBAO F, ELOKA-EBOKA A, SHARIFPUR M and MEYER JP; Investigation into the electrical conductivity of carbon nanosphere-based green nanofluids, Transactions on Engineering Technologies, Chapter 6, Edited by AO, KIM and Amouzegar, Springer, 2019.

12. MEYER JP and EVERTS M; A review of the recent developments in laminar, transitional, quasi-turbulent and turbulent forced and mixed convective flow through horizontal tubes, Edited by SPARROW EM, ABRAHAM JP, GORMAN JM and MINKOWYCZ WJ, Advances in Heat Transfer, Vol 51, Elsevier, pp. 131 – 205, 2019.

13. OTUKPA OG, MOGHIMI MA, AHMAD G and MEYER JP; A review of conventional and sustainable mirror cleaning technologies in parabolic trough collector (PTC) plants, Edited by SEBASTIAAN H, Parabolic troughs, Design and applications, Energy, engineering and technology, Nova Science Publishers, Chapter 3, pp. 75 – 120, 2021.

14. MEYER JP and DE PAEPE M (editors), The art of measuring in thermal sciences, CRC Press, Taylor and Francis, pp. 2021.

15. EVERTS M and MEYER JP; Test sections for heat transfer and pressure drop measurements: construction, calibration and validation, Edited by MEYER JP and DE PAEPE M, The art of measuring in thermal sciences, CRC Press, Taylor and Francis, pp. 107 - 160, 2021.

16. MEYER JP and DE PAEPE M (editors), The art of measuring in thermal sciences, CRC Press, Taylor and Francis, pp. 2021.

Articles published in peer-reviewed accredited journals

1. MEYER JP; A method to predict the effective cleaning of milk pipe-lines, Research and Development Journal, Vol. 2, No. 1, pp. 16-18, 1986.

2. MEYER JP and MATHEWS EH; A transformed Laplace equation for the numerical solution of various mechanical engineering problems, The International Journal for Mechanical Engineering Education, Vol. 15, No. 1, pp. 41-50, 1987.

3. MEYER JP; Computational fluid flow, The South African Mechanical Engineer, Vol. 37, No. 5, pp. 223-228, May 1987.

4. MATHEWS EH and MEYER JP; Numerical modelling of wind loading on a film clad greenhouse, Building and Environment; The International Journal of Building Science and its Applications, Vol. 22, No. 2, pp. 129-134, 1987.

5. MATHEWS EH, MEYER JP, VISSER JA and CROSBY CP; Numerical prediction of wind loads on buildings, Journal of Wind Engineering and Industrial Aerodynamics, Vol. 31, pp. 241-250, 1988.

6. MEYER JP, MATHEWS EH and VAN ZYL GP; Numerical calculation of profiles corresponding to given pressure distributions, Communications in Applied Numerical Methods, Vol. 3, No. 2, 1988.

7. MATHEWS EH, CROSBY CP, VISSER JA and MEYER JP; Numerical prediction of wind loads on buildings, Journal of Wind Engineering and Industrial Aerodynamics, Vol. 13, pp. 241-250, 1988.

8. MATHEWS EH and MEYER JP; Computation of wind loads on a semicircular greenhouse, Journal of Wind Engineering and Industrial Aerodynamics, Vol. 29, pp. 225-233, 1988.

9. MEYER JP; Numerical prediction of viscous and turbulent flow around a projectile in the transonic flow regime, Aeronautica Meridiana Journal, Vol. 8, pp. 75-83, 1990.

10. GREYVENSTEIN GP and MEYER JP; The viability of heat pumps for the heating of swimming pools in South Africa, Energy - The International Journal, Vol. 16, No. 7, pp. 1031-1037, 1991.

11. MEYER JP, LE GRANGE LA and MEYER C; The utilization of air scoops for the improvement of ventilation in a coal mine heading, International Journal of Mining Science and Technology, Vol. 13, pp. 17-24, 1991.

12. MEYER JP and GREYVENSTEIN GP; The heating of swimming pools in South Africa: a techno-economic analysis between heat pumps and solar heating, Research and Development Journal, Vol. 7, No. 1, pp. 26-31, 1991.

13. MEYER JP and GREYVENSTEIN GP; Hot water for homes in South Africa with Heat Pumps, Energy - The International Journal, Vol. 16, No. 7, pp. 1039-1044, 1991.

14. GREYVENSTEIN GP and MEYER JP; Influence of price changes on the viability of heat pumps for heating water in South African homes, International Journal of Energy Conversion and Management, Vol. 33, No. 1, pp. 41-49, 1991.

15. MEYER JP and GREYVENSTEIN GP; The influence of an increase in electricity tariffs on the viability of heat pumps against direct heating for large consumers of hot water in South Africa, International Journal of Energy Economics, Vol. 13, No. 4, pp. 238-245, 1991.

16. MEYER JP and GREYVENSTEIN GP; Hot water for large residential units, hospitals and laundries with heat pumps in South Africa: a techno-economic analysis, International Journal of Energy Conversion and Management, Vol. 33, No. 2, pp. 135-144, 1991.

17. VAN STADEN MP and MEYER JP; The influence of nose radius modification on the lift to drag ratio of an NACA64-006 wing section, Aeronautica Meridiana, Vol. 9, 1991.

18. MATHEWS EH, VAN DER WALT NW and MEYER JP; A numerical design procedure for subsonic nozzles, Aeronautica Meridiana, Vol. 9, 1992.

19. MEYER JP and GREYVENSTEIN GP; The drying of grain with heat pumps in South Africa, International Journal of Energy Research, Vol. 16, No. 1, pp. 13-20, 1992.

20. MEYER JP and GREYVENSTEIN GP; Hot water for large residential units, hospitals and laundries with heat pumps in South Africa; a techno-economic analysis, Energy Conversion and Management, Vol. 33, No. 2, pp. 135-143, 1992.

21. MEYER JP and GREYVENSTEIN GP; Influence of price changes on the viability of heat pumps for water heating in South Africa, Energy Conversion and Management, Vol. 33, No. 1, pp. 41-49, 1992.

22. MEYER JP; The behaviour of a non-circular cylinder with and without strakes in cross-flow, Aeronautica

Meridiana, Vol. 10, 1992.

23. MEYER JP and MARX WM; The minimizing of pressure losses in a fan drift-mine shaft intersection, using computational fluid dynamics, Research and Development Journal, Vol. 9, No. 3, pp. 1-7, 1993.

24. LE GRANGE LA, GREYVENSTEIN GP, DE KOCK WJ and MEYER JP; A numerical model for solving polymer melt flow, Research and Development Journal, Vol. 9, No. 2, pp. 12-17, 1993.

25. GREYVENSTEIN GP and MEYER JP; The cost-effectiveness of heat pumps in specific buildings in South Africa, International Journal of Energy Research, Vol. 17, No. 7, pp. 633-646, 1993.

26. MEYER JP and GREYVENSTEIN GP; The influence of height above sea level on the COP of air-source heat pumps used for water heating, Heat Transfer Engineering, Vol. 14, No. 2, pp. 44-50, 1993.

27. MEYER JP and GREYVENSTEIN GP; The calculation of viscous transonic flows with a pressure-based method, AIAA Journal of Aircraft, Vol. 32, No. 3, pp. 659-661, 1994.

28. MEYER JP and TSHIMANKINDA M; Domestic hot water consumption by developing communities in South African Traditional Houses, Energy - The International Journal, Vol. 21, No. 12, pp. 1101-1106, 1996.

29. MEYER JP and TSHIMANKINDA M; Domestic hot water consumption in South African houses for developed and developing communities, International Journal of Energy Research, Vol. 21, pp. 667-673, 1997.

30. PETIT PJ and MEYER JP; A techno-economic analysis between the performances of air- and ground-source air conditioners in South Africa, International Journal of Energy Research, Vol. 21, No. 11, pp. 1011-1021, 1997.

31. MEYER JP and TSHIMANKINDA M; Domestic hot water consumption by South African developing communities living in shacks, International Journal of Energy Research, Vol. 21, pp. 1081-1086, 1997.

32. VAN DEN VYVER S and MEYER JP; Heat transfer augmentation in the annulus of a heat exchanger consisting of a round tube inside a twisted square tube, Research and Development Journal, Vol. 13, No. 3, pp. 77-82, 1997.

33. SWANEPOEL W and MEYER JP; Preliminary investigation of heat transfer augmentation by means of spiral wires in the annulus of tube-in-tube heat exchangers, Research and Development Journal, Vol. 13, No. 3, pp. 98-100, 1997.

34. BEKKER MC, MEYER JP, PRETORIUS L and VAN DER MERWE DF; Separation of solid-liquid suspensions with acoustic energy, Water Research Journal, Vol. 31, No. 10, pp. 2543-2549, 1997.

35. MEYER JP and TSHIMANKINDA M; Domestic hot-water consumption in South African apartments, Energy - The International Journal, Vol. 23, No. 1, pp. 61-66, 1998.

36. MEYER JP and TSHIMANKINDA M; Domestic hot water consumption in South African Townhouses, Energy Conversion and Management, Vol. 39, No. 7, pp. 679-684, 1998.

37. PETIT PJ and MEYER JP; Techno-economic analysis between the performances of heat source air-conditioners in South Africa, Energy, Conversion and Management, Vol. 39, No. 7, pp. 661-669, 1998.

38. VORSTER PPJ and MEYER JP; Wet compression versus dry compression in heat pumps working with pure refrigerants, Australian Refrigeration Air Conditioning & Heating Journal, (AIRAH Journal), Vol. 52, No. 3, pp. 40-43, 1998.

39. PETIT PJ and MEYER JP; Economic potential of vertical ground-source heat pumps compared to air-source air-conditioners in South Africa, Energy - The International Journal, Vol. 23, No. 2, pp. 137-143, 1998.

40. WOOD CW and MEYER JP; Unsteady temperature distributions in vertical storage tanks heated with heat

pumps, Heat Transfer Engineering, Vol. 19, No. 3, pp. 43-52, 1998.

41. HERMAN H and MEYER JP; Heat transfer augmentation of a spiralled tube inside the annulus of a tube-in-tube heat exchanger, Research and Development Journal, Vol. 14, No. 3, pp. 43-48, 1998.

42. MEYER JP; Evaluation of LPG as a refrigerant in air conditioning and refrigeration, Mechanical Technology, pp. 7-12, December 1998.

43. MEYER JP; Evaluation of LPG, propane, R-404A, R-410A and R-407c as refrigerants in air conditioning and refrigeration, Refrigeration and Air Conditioning, Vol. 15, No. 2, pp. 24-33, 1999.

44. MEYER JP, RAUBENHEIMER PJA and KRÜGER E; The influence of return loop flow rate on stratification in a vertical hot water storage tank connected to a heat pump water heater, Heat Transfer Engineering, Vol. 21, No. 2, pp. 67 – 73, 2000.

45. VORSTER PPJ and MEYER JP; Wet compression versus dry compression in heat pumps working with pure refrigerants or non-azeotropic binary mixtures for different heating applications, International Journal of Refrigeration, Vol. 23, No. 4, pp. 292-311, 2000.

46. MEYER JP, BUKASA JM and KEBONTE S; Average boiling and condensation heat transfer coefficients of the zeotropic refrigerant mixture R22/R142b in a coaxial tube-in-tube heat exchanger, Journal of Heat Transfer, Vol. 122, No. 1, pp. 186-188, 2000.

47. COETZEE S, DA VEIGA WR and MEYER JP; Condensation in an annulus with spiralled wires, Research and Development Journal, Vol. 16, No. 3, pp. 51 – 54, 2000.

48. MEYER JP; A review of domestic hot-water consumption in South Africa, Research and Development Journal, Vol. 16, No. 3, pp. 55 – 61, 2000.

49. DE SWARDT CA and MEYER JP; A performance comparison between an air-source and a ground-source reversible heat pump, International Journal of Energy Research, Vol. 25, No. 10, pp. 899 – 910, 2001

50. MEYER JP and WOOD CW; The design and experimental verification of heat exchanger accumulators used in small commercially available air conditioning systems, International Journal of Energy Research, Vol. 25, No. 10, pp. 911 – 925, 2001.

51. MEYER JP; The performance of the refrigerants R-134a, R-290, R404A, R-407c and R-410A in air conditioners and refrigerators, Strojniški Vestnik - Journal of Mechanical Engineering, Vol. 47, No. 8, pp. 366 – 373, 2001.

52. DE SWARDT CA and MEYER JP; A performance comparison between an air-source and a ground-source reversible heat pump, Strojniški Vestnik - Journal of Mechanical Engineering, Vol. 47, No. 8, pp. 519 - 526, 2001.

53. SMIT FJ and MEYER JP; Condensation heat transfer coefficients of the zeotropic refrigerant mixture R-22/R-142b, International Journal of Thermal Sciences, Vol. 41, No, 7, pp. 625 – 630, 2002.

54. SMIT FJ and MEYER JP; R-22 and Zeotropic R-22/R-142b mixture condensation in micro fin, high-fin and twisted tape insert tubes, Journal of Heat Transfer, Vol. 124, No. 5, pp. 912 – 921, 2002.

55. DA VEIGA WR and MEYER JP; Heat transfer coefficient of a snow bag, International Journal of Refrigeration, Vol. 25, No. 8, pp. 1043 – 1046, 2002.

56. SMIT FJ, THOME JR and MEYER JP; Heat transfer coefficients during condensation of the zeotropic refrigerant mixture HCFC-22/HCFC-142b, Journal of Heat Transfer, Vol. 124, No. 6, pp. 1137 – 1146, 2002.

57. DIRKER J and MEYER JP; Heat transfer coefficients in concentric annuli, Journal of Heat Transfer, Vol. 124, No. 6, pp. 1200 – 1202, 2002.

58. SMITH C, COETZEE PP and MEYER JP: The effectiveness of a magnetic physical water treatment device on scaling in domestic hot-water storage tanks, Water SA, Vol. 29, No. 3, pp. 231 – 236, 2003.

59. COETZEE H, LIEBENBERG L and MEYER JP; Angled spiralling tape inserts in a heat exchanger annulus, R & D Journal, Vol. 19, No. 2, pp 3 – 10, 2003.

60. DIRKER J and MEYER JP; Convection in concentric annular regions for turbulent flow of liquid water, R & D Journal, Vol. 19, No. 2, pp. 17 – 21, 2003.

61. COETZEE H, LIEBENBERG L and MEYER JP; Heat transfer and pressure drop characteristics of angled spiralling tape inserts in a heat exchanger annulus, Heat Transfer Engineering, Vol. 24, No. 6, pp 29 – 39, 2003.

62. BUKASA JP, LIEBENBERG L and MEYER JP; Heat transfer performance during condensation inside spiralled micro-fin tubes, Journal of Heat Transfer, Vol. 126, No. 3, pp 321 – 328, 2004.

63. DIRKER J, VAN DER VYVER H and MEYER JP; Convection heat transfer in concentric annuli, Experimental Heat Transfer, Vol. 17, No 1, pp. 19 – 29, 2004.

64. OLIVIER JA, LIEBENBERG L, KEDZIERSKI MA, and MEYER JP; Pressure drop during refrigerant condensation inside horizontal smooth, helical micro-fin, and herringbone micro-fin tubes, Journal of Heat Transfer, Vol. 126, No. 5, pp. 687 – 696, 2004.

65. DIRKER J A and MEYER JP; Convective heat transfer coefficients in concentric annuli, Heat Transfer Engineering, Vol. 26, No. 2, pp. 38 – 44, 2005.

66. LIEBENBERG L, THOME JR and MEYER JP; Flow visualization and flow pattern identification with power spectral density distributions of pressure traces during refrigerant condensation in smooth and micro-fin tubes, Journal of Heat Transfer, Vol. 127, No. 3, pp. 209 – 220, 2005.

67. LOUW W and MEYER JP; Heat transfer during annular contact in a helically coiled tube-in-tube heat exchanger, Heat Transfer Engineering, Vol. 26, No. 6, pp. 16 - 21, 2005.

68. DIRKER J, LIU W, VAN WYK JD, MALAN AG and MEYER JP; Embedded solid state heat extraction in integrated power electronic modules, IEEE Transactions on Power Electronics, Vol. 20, No. 3, pp. 694 – 703, 2005.

69. DIRKER J, MALAN AG and MEYER JP; Thermal characterization of rectangular cooling shapes in heat generating mediums – a three dimensional investigation, Strojniski Vestnik – Journal of Mechanical Engineering, Vol. 51, No 7 – 8, pp. 391 – 398, 2005.

70. BUKASA JP, LIEBENBERG L and MEYER JP; Influence of spiral angle on heat transfer during condensation inside spiralled micro-fin tubes, Heat Transfer Engineering, Vol. 26, No. 7, pp. 11 – 21, 2005.

71. MEYER JP and VAN DER VYVER H; Heat Transfer Characteristics of a Quadratic Koch Island Fractal Heat Exchanger, Heat Transfer Engineering, Vol. 26 (9), pp. 22 - 29, 2005.

72. LAMBRECHTS A, LIEBENBERG L, BERGLES AE and MEYER JP; Heat transfer performance during condensation inside horizontal smooth, micro-fin and herringbone tubes, Journal of Heat Transfer, Vol. 128, No. 7, pp. 691- 700, 2006.

73. ZIMPAROV VD, PENCHEV PJ and MEYER JP; Performance evaluation of tube-in-tube heat exchangers with heat transfer enhancement in the annulus, Thermal Science, Vol. 10, No. 1, pp. 45 - 56, 2006.

74. LIEBENBERG L and MEYER JP; The characterization of flow regimes with power spectral density distributions of pressure fluctuations during condensation in smooth and micro-fin tubes, Experimental Thermal and Fluid Science, Vol. 31, pp. 127 - 140, 2006.

75. DIRKER J, VAN WYK JD and MEYER JP; Cooling of power electronics by embedded solids, ASME Journal of

Electronic Packaging, Vol. 128, pp. 388 - 397, 2006.

76. PATTINSON J, MALAN AG and MEYER JP; An agglomerated FAS multigrid accelerated cut-cell non-collocated Cartesian mesh method for incompressible and compressible flow, South African Journal of Science, Vol. 102, No. 11/12, pp. 537 - 542, 2006.

77. OWAGA D, LIEBENBERG L and MEYER JP; A flow regime map for refrigerant condensation in herringbone micro-fin tubes, South African Journal of Science, Vol. 102, No. 11/12, pp. 519 - 526, 2006.

78. BURGER NDL, DE VAAL PL and MEYER JP; Failure criteria for polyethylene acetabular cups, SA Journal of Science, Vol. 102, No. 11/12, pp. 572 - 575, 2006.

79. BURGER NDL, DE VAAL PL and MEYER JP; Failure analysis on retrieved ultra high molecular weight polyethylene (UHMWPE) acetabular cups, Engineering Failure Analysis, Vol. 14, pp. 1329 - 1345, 2007.

80. OLIVIER JA, LIEBENBERG L, THOME JR and MEYER JP; Heat transfer, pressure drop, and flow pattern recognition during condensation inside smooth, helical micro-fin, and herringbone tubes, International Journal for Refrigeration, Vol. 30, pp. 609 - 623, 2007.

81. DIRKER J, MALAN AG and MEYER JP; Thermal characterization of rectangular cooling shapes in solids, International Journal of Numerical Methods for Heat and Fluid Flow, Vol. 17, No. 4, pp. 361 - 383, 2007.

82. MORRIS RM, SNYMAN JA and MEYER JP; Jets in crossflow mixing analysis using computational fluid dynamics and mathematical optimization, AIAA Journal of Propulsion and Power, Vol. 23, No. 3, pp. 618 -628, 2007.

83. OLADIRAN MT and MEYER JP; Energy and exergy analyses of energy consumption in the industrial sector in South Africa, Applied Energy, Vol. 84, No. 10, pp. 1056 - 1067, 2007.

84. BELLO-OCHENDE T, LIEBENBERG L, and MEYER JP; Constructal cooling channels for micro-channel heat sinks, International Journal of Heat and Mass Transfer, Vol. 50, No, 21-22, pp. 4141 - 4150, 2007.

85. CANIÈRE H, T'JOEN C, WILLOCKZ A, DE PAEPE M, CHRISTIANS M, VAN ROOYEN E, LIEBENBERG L and MEYER JP; Horizontal two-phase flow characterization for small diameter tubes with a capacitance sensor, Measurement Science and Technology, Vol. 18, pp. 2898 - 2906, 2007.

86. LIEBENBERG L and MEYER JP; In-tube passive heat transfer enhancement in the process industry, Applied Thermal Engineering, Vol. 27, pp. 2713 - 2727, 2007.

87. BELLO-OCHENDE T, LIEBENBERG L, MALAN AG, BEJAN A and MEYER JP; Constructal conjugate heat transfer in three dimensional cooling channels, Journal of Enhanced Heat Transfer, Vol. 14, No. 4, pp. 279 -293, 2007.

88. PATTINSON J, MALAN AG and MEYER JP; A cut-cell non-conforming Cartesian mesh method for compressible and incompressible flow, International Journal for Numerical Methods in Engineering, Vol. 72, No. 11, pp. 1332 - 1354, 2007.

89. MALAN AG, MEYER JP and LEWIS RL; Modelling non-linear heat conduction via a fast matrix-free implicit unstructured-hybrid algorithm, Computer Methods in Applied Mechanics and Engineering, Vol. 196, Issue 45 - 48, pp. 4495 - 4504, 2007.

90. BELLO-OCHENDE T, LIEBENBERG L and MEYER JP; Constructal design: geometric optimisation of micro-channel heat sinks, SA Journal of Science, Vol. 103, No 11/12, pp. 483 - 489, 2007.

91. DIRKER J and MEYER JP; Cooling layers in rectangular heat generating electronic regions for two boundary conditions types – A Comparison with a Traditional Approach, SA Journal of Science, Vol. 103, No. 11/12, pp. 474 - 482, 2007.

92. LIEBENBERG L and MEYER JP; A review of flow pattern-based predictive correlations during refrigerant condensation in horizontally smooth and enhanced tubes, Heat Transfer Engineering, Vol. 29, No. 1, pp. 3 - 19, 2008.

93. LIEBENBERG L and MEYER JP; Refrigerant condensation flow regimes in enhanced tubes and their effect on heat transfer coefficients and pressure drop, Heat Transfer Engineering, Vol. 29, No. 6, pp. 506 - 520, 2008.

94. VISSER CJ, MALAN AG and MEYER JP; An artificial compressibility algorithm for modelling natural convection in saturated packed pebble beds: a heterogeneous approach, International Journal for Numerical Methods in Engineering, Vol. 75, No. 10, pp. 1214 – 1237, 2008.

95. VISSER CJ, MALAN AG and MEYER JP; An artificial compressibility method for buoyancy-driven flow in heterogeneous saturated packed beds: a homogeneous approach, International Journal of Numerical Methods for Heat and Fluid Flow, Vol. 18, No 7/8, pp. 900 – 918, 2008.

96. DIRKER J and MEYER JP; Heat removal from power electronics in two direction sets using embedded solid stated cooling layers - a proposed non-numerical calculation method, Heat Transfer Engineering, Vol. 30, No. 6, pp. 452 – 465, 2009.

97. JI T, LIEBENBERG L and MEYER JP; Heat transfer enhancement during condensation in smooth tubes with helical wire inserts, Heat Transfer Engineering, Vol. 30, No. 5, pp. 337 - 352, 2009.

98. DIRKER J and MEYER JP; Thermal characterization of embedded heat spreading layers in rectangular heat-generating electronic modules, International Journal for Heat and Mass Transfer, Vol. 52, No. 5-6, pp. 1374 – 1384, 2009.

99. BELLO-OCHENDE T and MEYER JP; Constructal cooling channels: application to heat transfer in micro-channel heat sinks, International Journal of Emerging Multidisciplinary Fluid Sciences, Vol. 1, No. 1, pp. 61 – 83, 2009.

100. BELLO-OCHENDE T, MEYER JP and BEJAN A; Constructal ducts with wrinkled entrances, International Journal of Heat and Mass Transfer, Vol. 52, No. 15-16, pp.3628 – 3633, 2009.

101. SULIMAN R, LIEBENBERG L and MEYER JP; Improved flow pattern map for accurate prediction of the heat transfer coefficients during condensation of R-134a in smooth horizontal tubes and within the low-mass flux range, International Journal of Heat and Mass Transfer, Vol. 52, No. 25-26, pp. 5701 – 5711, 2009.

102. IGHALO F.U., BELLO-OCHENDE T and MEYER JP; Mathematical optimization: application to the design of optimal micro-channel heat sinks, Engenharia Térmica (Thermal Engineering), Vol. 8, No. 1, pp. 58 – 64, 2009.

103. BELLO-OCHENDE T, MEYER JP and DIRKER J; Three-dimensional multi-scale plate assembly for maximum heat transfer rate density, International Journal of Heat and Mass Transfer, Vol. 53, No. 4, pp. 586-593, 2010.

104. VAN ROOYEN E, CHRISTIANS-LUPI M, LIEBENBERG L and MEYER JP; Probabilistic flow-pattern-based heat transfer correlation for condensing intermittent flow of refrigerants in smooth horizontal tubes, International Journal of Heat and Mass Transfer, Vol. 53, Issue 7-8, pp. 1446 – 1460, 2010.

105. BELLO-OCHENDE T, MEYER J.P. and BEJAN A; Constructal multi-scale pin-fins, International Journal of Heat and Mass Transfer, Vol. 53, Issue 13-14, pp. 2773-2779, 2010.

106. MOTSAMAI OS, SNYMAN JA and MEYER JP; Optimisation of gas turbine combustor mixing for improved exit temperature profile, Heat Transfer Engineering, Vol. 31, No. 5, pp. 402 – 418, 2010.

107. OLIVIER JA and MEYER JP; Single-phase heat transfer and pressure drop of the cooling of water inside smooth tubes for transitional flow with different inlet geometries (RP-1280), HVAC&R Journal, Vol. 16, No. 4, pp. 471 – 496, 2010.

108. BELLO-OCHENDE T, MEYER JP and IGHALO FU; Combined numerical optimization and constructal theory for

the design of micro-channel heat sinks, Numerical Heat Transfer, Application Part A, Vol. 58, pp. 882 – 899, 2010.

109. MEYER JP and OLIVIER JA; Transitional flow inside enhanced tubes for fully developed and developing flow with different types of inlet disturbances: Part I – adiabatic pressure drop, International Journal for Heat and Mass Transfer, Vol. 54, Issue 7-8, pp. 1587 – 1598, 2011.

110. MEYER JP and OLIVIER JA; Transitional flow inside enhanced tubes for fully developed and developing flow with different types of inlet disturbances: Part II – heat transfer, International Journal for Heat and Mass Transfer, Vol. 54, Issue 7-8, pp. 1598 – 1607, 2011.

111. BELLO-OCHENDE T, MEYER JP and OGUNRONBI OI; Constructal multiscale cylinders rotating in cross-flow, International Journal of Heat and Mass Transfer, Vol. 54, Issue 11 – 12, pp. 2568 – 2577, 2011.

112. LIPS S and MEYER JP; Two-phase flow in inclined tubes with specific reference to condensation: a review, International Journal of Multiphase Flow, Vol. 37, No. 8, pp. 845 – 859, 2011.

113. LE ROUX WG, BELLO-OCHENDE T and MEYER JP; Operating conditions of an open and direct solar thermal Brayton cycle with optimised cavity receiver and recuperator, Energy, Vol. 36, pp. 6027-6036, 2011.

114. ALAM MM, REHMAN S, MEYER JP and AL-HADHRAMI LM; Review of 600 - 2500 kW sized wind turbines and optimization of hub height for maximum wind energy yield realization, Renewable and Sustainable Energy, Vol. 15, pp. 3839 – 3849, 2011.

115. MEYER JP; Constructal law in technology, thermofluid and energy systems, and in design education, Physics of Life Reviews, Vol. 8, No. 3, pp. 247 – 248, 2011.

116. PAGE LG, BELLO-OCHENDE T and MEYER JP; Maximum heat transfer density rate enhancement from cylinders rotating in natural convection, International Communications in Heat and Mass Transfer, Vol. 38, No. 10, pp. 1354 – 1359, 2011.

117. ALAM MD and MEYER JP; Two interacting cylinders in cross flow, Physical Review E, Vol. 84, paper number 056304, 16 pages, 2011.

118. LIPS S and MEYER JP; Effect of gravity forces on heat transfer and pressure drop during condensation of R134a, Microgravity Science and Technology, Vol. 24, No. 3, pp. 157-164, 2011.

119. VAN HEERDEN ASJ, LIDBETTER RT, LIEBENBERG L, MATHEWS EH and MEYER JP; Development of a motion platform for an educational flight simulator, International Journal of Mechanical Engineering Education, Vol. 39, No. 4, pp. 306-322, 2011.

120. LE ROUX WG, BELLO-OCHENDE T and MEYER JP; Thermodynamic optimization of an integrated design of a small-scale solar thermal Brayton cycle, International Journal of Energy Research, Vol. 36, No. 11, pp. 1088 – 1104, 2012.

121. REHMAN S, MAHBUB AM, MEYER JP and AL-HADHRAMI LM; Feasibility study of a wind–pv-diesel hybrid power system for a village, Renewable Energy, Vol. 38, No. 1, pp. 258 – 268, 2012.

122. LIPS S and MEYER JP; Experimental study of convective condensation in an inclined smooth tube. Part I: Inclination effect on flow pattern and heat transfer coefficient, International Journal for Heat and Mass transfer, Vol. 55, Issue 1 – 3, pp. 395-404, 2012.

123. LIPS S and MEYER JP; Experimental study of convective condensation in an inclined smooth tube. Part II: Inclination effect on pressure drops and void fractions, International Journal for Heat and Mass transfer, Vol. 55, Issue 1 – 3, pp. 405-412, 2012.

124. OLAKOYEJO OT, BELLO-OCHENDE T and MEYER JP; Mathematical optimisation of laminar forced convection heat transfer through a vascularised solid with square channels, International Journal of Heat and Mass Transfer, Vol. 55, Issue 9-10, pp. 2402 – 2411, 2012.

125. OLAKOYEJO OT, BELLO-OCHENDE T and MEYER JP; Constructal conjugate cooling channels with internal heat generation, International Journal of Heat and Mass Transfer, Vol. 55, No. 15-16, pp. 4385 – 4396, Issue 14, 2012.

126. LORENTE S, CETKIN E, BELLO-OCHENDE T, MEYER JP and BEJAN A; The constructal-law of why swimmers must spread their fingers and toes, Journal of Theoretical Biology, Vol. 38, pp. 141 – 146, 2012.

127. MEHRABI M, SHARIFPUR M and MEYER JP; Application of the FCM-based neuro-fuzzy inference system and genetic algorithm-polynomial neural network approaches to modelling the thermal conductivity of alumina-water nanofluids, International Communications in Heat and Mass Transfer, Vol. 39, No. 7, pp. 971 – 977, 2012.

128. OBAYOPO S, BELLO-OCHENDE T and MEYER JP; Modelling and optimization of reactant gas transport in a PEM fuel cell with a transverse pin fin insert in channel flow, International Journal of Hydrogen Energy, Vol. 37, No. 13, pp. 10286 – 10298, 2012.

129. BALOYI J, BELLO-OCHENDE T and MEYER JP; Minimization of thermal resistance in an air cooled porous matrix made up of solid spheres with heat generation, International Communication Heat and Mass Transfer, Vol. 39, No. 9, pp. 966 – 970, 2012.

130. LIPS S and MEYER JP; Stratified flow model for convective condensation in an inclined tube, International Journal of Heat and Fluid Flow, Vol. 36, pp. 83 – 91, 2012.

131. MEYER, JP, OLAKOYEJO OT and BELLO-OCHENDE T; Constructal optimisation of conjugate cooling channels with internal heat generation, International Communications in Heat and Mass Transfer, Vol. 39, No: 9, pp. 1093 – 1100, 2012.

132. LE ROUX WG, BELLO-OCHENDE T and MEYER JP; Optimum performance of the small-scale open and direct solar thermal Brayton cycle at various environmental conditions and constraints, Energy, Vol. 46, No. 1, pp. 42 – 50, 2012.

133. MEYERS BC, SNEDDEN GC, MEYER JP, ROOS TH and MAHMOOD GI; Three-component particle velocimetry in a generic can-type gas turbine combustor, Part A: Journal of Power and Energy, Vol. 227, No. 7, pp. 892 – 902, 2012.

134. REHMAN S, MAHBUB AM, MEYER JP and AL-HADRAMI LM; Wind speed characteristics and resource assessment using weibull parameters, International Journal of Green Energy, Vol. 9, pp. 1-15, 2012.

135. MEYER JP, OLAKOYEJO OT and MEYER JP; Constructal optimisation of conjugate triangular cooling channels with internal heat generation, International Communications in Heat and Mass Transfer, Vol. 39, No. 1, pp. 1093 - 1110, 2012.

136. PAGE LG, BELLO-OCHENDE T and MEYER JP; Constructal multi scale cylinders with rotation cooled by natural convection, International Journal for Heat and Mass Transfer, Vol. 57, No. 1, pp. 345 - 355, 2013.

137. BELLO-OCHENDE T, OLAKOYEJO OT, MEYER JP, BEJAN A and MEYER JP; Constructal flow orientation in conjugate cooling channels with internal heat generation, International Journal of Heat and Mass Transfer, Vol. 57, No. 1, pp. 241 - 249, 2013.

138. MEYER JP, McKRELL TJ and GROTE K; The influence of carbon nanotubes on single-phase heat transfer and pressure drop characteristics in the transitional flow regime of smooth tubes, International Journal of Heat and Mass Transfer, Vol. 58, No. 1-2, pp. 597 – 609, 2013.

139. YEKOLADIO PJ, BELLO-OCHENDE T and MEYER JP; Design and optimization of a downhole coaxial heat exchanger for an enhanced geothermal system (EGS), Renewable Energy, Vol. 55, pp. 128 – 137, 2013.

140. OBAYOPO SA, BELLO-OCHENDE T, MEYER JP; Three-dimensional optimisation of a fuel gas channel of a proton exchange membrane fuel cell for maximum current density, International Journal of Energy Research, Vol. 37, pp. 228 – 241, 2013.

141. MEHRABI M, SHARIFPUR M and MEYER JP; Viscosity of nanofluids based on an artificial intelligence model, International Communications in Heat and Mass Transfer, Vol. 43, pp. 16 – 21, 2013.

142. VAN ZYL WR, DIRKER J and MEYER JP; Single-phase convective heat transfer and pressure drop coefficients in concentric annuli, Heat Transfer Engineering, Vol. 34, No. 13, pp. 1112-1123, 2013.

143. MWESIGYE A, BELLO-OCHENDE T and MEYER JP; Numerical investigation of entropy generation in a parabolic through receiver at different concentration ratios, International Journal of Energy, Vol. 53, pp. 114-127, 2013.

144. VADASZ JJ, MEYER JP and GOVENDER S; Vibration effects on weak turbulent natural convection in a porous layer heated from below, International Communications in Heat and Mass Transfer, Vol. 45, pp. 100 – 110, 2013.

145. ADEWUMI OO, BELLO-OCHENDE T and MEYER JP; Constructal design of combined microchannel and micro pin fins for electronic cooling, International Journal of Heat and Mass Transfer, Vol. 66, pp. 315 – 323, 2013.

146. ALAM M and MEYER JP; Global aerodynamic instability of twin cylinders in cross flow, Journals of Fluids and Structures, Vol. 41, pp. 135-145, 2013.

147. BURGER FH, DIRKER J and MEYER JP; Three-dimensional conductive heat transfer topology optimisation in a cubic domain for the volume-to-surface problem, International Journal of Heat and Mass Transfer, Vol. 67, pp. 214-224, 2013.

148. LE ROUX WG, BELLO-OCHENDE T and MEYER JP; A review on the thermodynamic optimisation and modelling of the solar thermal Brayton cycle, Renewable and Sustainable Energy Reviews, Vol. 28, pp. 677 - 690, 2013.

149. MEHRABI M, SHARIFPUR M and MEYER JP; Modelling and multi-objective optimisation of the convective heat transfer characteristics and pressure drop of low concentration TiO2-water nanofluids in the turbulent flow regime, International Journal of Heat and Mass Transfer, Vol. 67, pp. 646 – 653, 2013.

150. SMITH L, OXTOBY OF, MALAN A and MEYER JP; An interactive boundary layer modelling methodology for aerodynamic flows, International Journal of Numerical Methods for Heat and Fluid Flow, Vol. 23, No. 8, pp. 1373-1392, 2013.

151. REHMAN S, AL-HADHRAMI LM, ALAM M and MEYER JP; Empirical correlation between hub height and local wind shear exponent for different sizes of wind turbines, Sustainable Energy Technologies and Assessments, Vol. 4, pp. 45-51, 2013.

152. DIRKER J and MEYER JP; Topology optimization for an internal heat-conduction cooling scheme in a square domain for high heat flux applications, Journal of Heat Transfer, Special issue: High Heat Flux Cooling of Electronics, Vol. 135, No. 11, pp. 111010-1 – 111010-10, 2013.

153. KEMPSON WJ, WEBBER-YOUNGMAN RCW and MEYER JP; Optimizing shaft pressure losses through computational fluid dynamics modelling, The Journal of the Southern African Institute of Mining and Metallurgy, Vol. 113, No. 12, pp. 931 – 939, 2013.

154. MEYER JP, DIRKER J and ADELAJA AO; Condensation heat transfer in smooth inclined tubes for R134a at different saturation temperatures, International Journal of Heat and Mass Transfer, Vol. 70, pp. 515-525, 2014.

155. LE ROUX W, BELLO-OCHENDE T and MEYER JP; The efficiency of an open-cavity solar receiver for a small-scale solar thermal Brayton cycle, Energy Conversion and Management, Vol. 84, pp. 457-470, 2014.

156. STOCKS M, BELLO-OCHENDE T and MEYER JP; Maximum thermal conductance for a micro-channel utilizing Newtonian and non-Newtonian fluid, Heat and Mass Transfer, Vol. 50, pp. 865-875, 2014.

157. MEYER JP and OLIVIER JA; Heat transfer and pressure drop characteristics of smooth horizontal tubes in the transitional flow regime, Heat Transfer Engineering, Vol. 35, No. 14-15, pp. 1246 – 1253, 2014.

158. VADASZ JJ, MEYER JP and GOVENDER S; Chaotic and periodic natural convection for moderate and high Prandtl numbers in a porous layer subject to vibrations. Transport in Porous Media, Vol. 103, pp. 279 – 294, 2014.

159. BALOYI J, BELLO-OCHENDE T and MEYER JP; Thermodynamic optimisation and computational analysis of irreversibilites in a small-scale wood-fired circulating fluidised bed adiabatic combustor, Energy – The International Journal, Vol. 70, pp. 653-663, 2014.

160. DIRKER J, MEYER JP and GARACH D; Inlet flow effects in micro-channels in the laminar and transitional regimes on single-phase heat transfer coefficients and friction factors, International Journal of Heat and Mass Transfer, Vol. 77, 612–626, 2014.

161. OKAFOR IF, DIRKER J and MEYER JP; Influence of circumferential solar heat flux distribution on the heat transfer coefficients of a linear Fresnel collector absorber tube, Solar Energy, Vol. 107, pp. 381 – 397, 2014.

162. NWOSU PN, MEYER JP, SHARIFPUR M; Nanofluid viscosity: A simple model selection algorithm and parametric evaluation, Computers and Fluids, Vol. 101, pp. 241-249, 2014.

163. ADELAJA AO, DIRKER J and MEYER JP; Effect of thick walled pipes with convective boundaries on laminar heat transfer, Applied Energy, Vol. 130, pp. 838-845, 2014.

164. MWESIGYE A, BELLO-OCHENDE T and MEYER JP; Heat transfer and thermodynamic performance of a parabolic through receiver with centrally placed perforated plate inserts, Applied Energy, Vol. 136, pp. 989 – 1003, 2014.

165. ALAM MM, REHMAN S, AL-HADHRAMI LM and MEYER JP; Extraction of the inherent nature of wind using wavelets and FFT, Energy for Sustainable Development, Vol. 22, pp. 34 – 47, 2014.

166. MOWAT AGB, MALAN AG, VAN ZYL LH and MEYER JP; Hybrid finite-volume reduced-order model method for nonlinear aeroelastic modeling, Journal of Aircraft, Vol. 51, No. 6, pp. 1805-1812, 2014.

167. NWOSU PN, MEYER JP and SHARIFPUR M; A review and parametric investigation into nanofluid viscosity models, Journal of Nanotechnology in Engineering and Medicine, Vol. 5, Paper: 031008, 1 – 8, 2014.

168. MWESIGYE A, BELLO-OCHENDE T and MEYER JP; Minimum entropy generation due to heat transfer and fluid friction in a parabolic trough receiver with non-uniform heat flux at different rim angles and concentration ratios, Energy, Vol. 73, pp. 606 – 617, 2014.

169. NGO LC, BELLO-OCHENDE T and MEYER JP; Numerical modelling and optimisation of natural convection heat loss suppression in a solar cavity receiver with plate fins, Renewable Energy, Vol. 74, pp. 95 – 105, 2015.

170. MWESIGYE A, BELLO-OCHENDE T and MEYER JP; Multi-objective and thermodynamic optimisation of a parabolic trough receiver with perforated plate inserts, Applied Thermal Engineering, Vol. 77, pp. 42 – 56, 2015.

171. MARTINS LS, SOMMER EM, VARGAS JVC, ORDONEZ JC and MEYER JP; Parametric analysis of a single alkaline membrane fuel cell, Heat Transfer Engineering, Vol. 36, pp. 963-973, 2015.

172. VAN LAAR JH, SLABBER JFM, MEYER JP, VAN DER WALT IJ, PUTS GJ and CROUSE PL; Microwave -plasma synthesis of nano-sized silicon carbide at atmospheric pressure, Ceramics International, Vol. 41, No. 3 (part B), pp. 4326 – 4333, 2015.

173. ADIO SA, SHARIFPUR M, MEYER JP; Investigation into effective viscosity, electrical conductivity and pH of γ-AL_2O_3-Glycerol Nanofluids in Einstein Concentration Regime, Heat Transfer Engineering, Vol. 36, Nr. 14-15, pp. 1241-1251, 2015.

174. NOLTE HC, BELLO-OCHENDE T and MEYER JP; Second law analysis and optimization of a parabolic trough receiver tube for direct steam generation, Heat and Mass Transfer, Vol. 51, No. 6, pp. 875 – 887, 2015.

175. MOGHIMI MA, CRAIG KJ and MEYER JP; A novel computational approach to combine the optical and thermal modelling of Linear Fresnel collectors using the finite volume method, Solar Energy, Vol. 116, pp. 407 – 427, 2015.

176. JANSEN E, BELLO-OCHENDE T and MEYER JP; Integrated solar thermal Brayton cycles with either one or two regenerative heat exchangers for maximum power output, Energy, Vol. 86, pp. 737 – 748, 2015.

177. NGO LC, BELLO-OCHENDE T and MEYER JP; Three-dimensional analysis and numerical optimization of combined natural convection and radiation heat loss in solar cavity receiver with plate fins insert, Energy Conversion and Management, Vol. 101, pp. 757 – 766, 2015.

178. YEKOLADIO P, BELLO-OCHENDE T and MEYER JP; Thermodynamic analysis and performance optimization of organic rankine cycles for the conversation of low-to-moderate grade geothermal heat, International Journal of Energy Research, Vol. 39, pp. 1256 – 1271, 2015.

179. MOGHIMI MA, CRAIG KJ and MEYER JP; Optimization of a trapezoidal cavity absorber for the Linear Fresnel Reflector, Solar Energy, Vol. 119, pp. 343 – 361, 2015.

180. MWESIGYE A, HUAN Z and MEYER JP; Thermodynamic optimisation of the performance of a parabolic trough receiver using synthetic oil-Al2O3 nanofluid, Applied Energy, Vol. 156, pp. 398 – 412, 2015.

181. MAHDAVI M, SHARIFPUR M and MEYER JP; CFD modelling of heat transfer and pressure drops for nanofluids through vertical tubes in laminar flow by Lagrangian and Eulerian approaches, International Journal for Heat and Mass Transfer, Vol. 50, No. 21-22, pp. 804 – 813, 2015.

182. AYBAR HS, SHARIFPUR M, AZIZIAN MR, and MEYER JP; A review of thermal conductivity models for nanofluids, Heat Transfer Engineering, Vol. 36, No. 13, pp. 1085-1110, 2015.

183. BASEER MA, MEYER JP, ALAM MM, and REHMAN S; Wind speed and power characteristics for Jubail industrial city, Saudi Arabia, Renewable and Sustainable Energy Reviews, Vol. 52, pp. 1193 – 1204, 2015.

184. ADIO SA, SHARIFPUR M and MEYER JP; Factors affecting the pH and electrical conductivity of MgO-ethylene glycol nanofluids. Bulletin of Material Science, Vol. 38, No. 5, pp. 1345 – 1357, 2015.

185. SHARIFPUR M, ADIO SA and MEYER JP; Experimental investigation and model development for effective viscosity of Al2O3-glycerol nanofluids by using dimensional analysis and GMDH-NH methods, International Communications in Heat and Mass Transfer, Vol. 68, pp. 208 – 219, 2015.

186. MARAIS MD, CRAIG KJ and MEYER JP; Computational flow optimization of heliostat aspect ratio for wind direction and elevation angle, Energy Procedia, Vol. 69, pp. 148 – 157, 2015.

187. RUNGASAMY AE, CRAIG KJ, MEYER JP; 3-D CFD modelling of a slanted receiver in a compact linear Fresnel plant with etendue-matched mirror field, Energy Procedia, Vol. 69, pp. 188 – 197, 2015.

188. NOAH OO, SLABBER J and MEYER JP; Investigation of natural convection heat transfer phenomena investigation in packed beds: lead-way towards new nuclear fuel design, Journal of Nuclear Engineering and Radiation Science, manuscript 041014, pp. 1 – 12, 2015.

189. KEMPSON W, WEBBER-YOUNGMAN R, and MEYER JP; Optimising shaft pressure losses through computational fluid dynamic modelling, Applied Thermal Engineering, Vol. 90, pp. 1098 – 1108, 2015.

190. MEYER JP, ADIO SA, SHARIFPUR M and NWOSU PN; The viscosity of nanofluids: a review of the theoretical, empirical and numerical models, Heat Transfer Engineering, Vol. 37, No. 5, pp. 387-421, 2016.

191. BASEER MA, MEYER JP, REHMAN S, ALAM MM, AL-HADRAMI LM, and LASHIM A; Performance evaluation of cup-anemometers and wind speed characteristics analysis, Renewable Energy, Vol. 86, pp. 733 – 744, 2016.

192. MWESIGYE A, BELLO-OCHENDE T and MEYER JP; Heat transfer and entropy generation in a parabolic trough receiver with wall-detached twisted tape inserts, International Journal of Thermal Sciences, Vol. 99, pp. 238 – 257, 2016.

193. OLIVIER SP, MEYER JP, DE PAEPE M and DE KERPEL K; The influence of inclination angle on void fraction and heat transfer during condensation inside a smooth tube, International Journal of Multiphase Flow, Vol. 80 pp, 1 – 14, 2016.

194. VADASZ JJ, MEYER JP, GOVENDER S and ZISKIND G; Experimental study of vibration effects on heat transfer during solidification of paraffin in a spherical shell, Experimental Heat Transfer, Vol. 29, pp. 285 – 298, 2016.

195. ADEWUMI OO, BELLO-OCHENDE T, and MEYER JP; Constructal design of single microchannel heat sink with varying axial length and temperature-dependent fluid properties, International Journal of Heat and Technology, Vol. 34, Special issue 1, pp. S167-S172, 2016.

196. REHMAN S, BASEER MA, MEYER JP, ALAM MM, ALHEMS LM, LASHIN A, ARIFI N; Suitability of utilizing small horizontal axis wind turbines for off grid loads in eastern region of Saudi Arabia, Energy Exploration and Exploitation, Vol. 34, No. 3, pp. 449 – 467, 2016.

197. MWESIGYE A, HUAN Z, and MEYER JP; Thermal performance and entropy generation of a high concentration ratio parabolic trough with Cu-Therminol®VP-1 nanofluid, Energy Conversion and Management, Vol. 120, pp. 449 – 465, 2016.

198. ADIO SA, SHARIFPUR M and MEYER JP; Influence of ultrasonification energy on the dispersion consistency of Al2O3-glycerol nanofluid based on viscosity data, and model development for the required ultrasonification energy density, Journal of Experimental Nanoscience, Vol. 11, No. 8, pp. 630 – 649, 2016.

199. ADIO SA, MEHRABI M, SHARIFPUR M and MEYER JP; Experimental investigation and model development of the effective viscosity of MgO-ethylene glycol nanofluids using dimensional analysis, FCM-ANFIS and GA-PNN techniques, International Communications in Heat and Mass Transfer, Vol. 72, pp. 71 – 83, 2016.

200. MAHDAVI M, SHARIFPUR M, GHODSINEZHAD H, and MEYER JP; Experimental and numerical study of the thermal and hydro-dynamic characteristics of laminar natural convection flow inside a rectangular cavity with water, ethylene glycol and air, Experimental Thermal and Fluid Science, Vol. 78, pp. 50 – 64, 2016.

201. MWESIGYE A, HUAN Z, BELLO-OCHENDE T, and MEYER JP; Influence of optical errors on the thermal and thermodynamic performance of a solar parabolic trough receiver, Solar Energy, Vol. 135, pp. 703 – 718, 2016.

202. VAN DER WESTHUIZEN JE, DIRKER J and MEYER; Implementation of liquid crystal thermography to determine wall temperatures and heat transfer coefficients in a tube-in-tube heat exchanger, Experimental Heat Transfer, Vol. 29, pp. 1 – 25, 2016.

203. PAGE L, DIRKER J and MEYER JP; Topology optimization for the conduction cooling of a heat-generating volume with orthotropic material, International Journal of Heat and Mass Transfer, Vol. 103, pp. 1075 – 1083, 2016.

204. MAHDAVI M, SHARIFPUR M and MEYER JP, Simulation study of convective and hydrodynamic turbulent nanofluids by turbulence models, International Journal of Thermal Sciences, Vol. 110, pp. 36 – 51, 2016.

205. TSHIMANGA N, SHARIFPUR M, MEYER JP, Experimental investigation and model development for thermal conductivity of Glycerol-MgO nanofluids, Heat Transfer Engineering, Vol. 37, No. 18, pp. 1538 – 1553, 2016.

206. BORNMAN W, DIRKER J, ARNDT D and MEYER JP; Operational energy minimisation for forced draft, direct-contact bulk air cooling tower through a combination of forward and first-principle modelling, coupled with an optimisation platform, International Journal of Energy, Vol. 114, pp. 995 – 1006, 2016.

207. CRAIG KJ, MOGHIMI MA, RUNGASAMY AE, MARSBERG J, and MEYER JP; Finite-volume ray tracing using Computational Fluid Dynamics in linear focus CSP applications, Applied Energy, Vol. 183, pp. 241-256, 2016.

208. SHARIFPUR M, YOUSEFI JP, and MEYER JP; A new model for density of nanofluids including nanolayer, International Communications in Heat and Mass Transfer, vol. 78, pp. 168 – 174, 2016.

209. ADELAJA AO, DIRKER J and MEYER JP; Convective condensation heat transfer of R134a in tubes at different inclination angles, International Journal of Green Energy, Vol. 13, No. 8, pp. 812 – 821, 2016.

210. NGO LC, BELLO-OCHENDE T and MEYER JP; Numerical investigation of natural convection of cavity receiver for low power application, International Journal of Green Energy, Vol. 13, No. 8, pp. 845 – 851, 2016.

211. BELLO-OCHENDE T, ADEWUMI OO, and MEYER JP; Increased heat load effects on the thermal performance of single- and two-layered microchannels with varying axial length and micro pin-fin inserts, International Journal of Fluid Mechanics Research, Vol. 43, Issue 5-6, pp. 441 – 455, 2016.

212. BASEER MA, MEYER JP, REHMAN S, ALAM MM, AL-HADHRAMI LM; Performance evaluation of cup-anemometers and wind speed characteristics analysis, Renewable Energy, Vol. 86, pp. 733 – 744, 2016.

213. GHODSINEZHAD M, SHARIFPUR M, and MEYER JP; Experimental investigation on cavity flow natural convection of Al_2O_3-water nanofluids, International Communications in Heat and Mass Transfer, Vol. 76, pp. 316 – 324, 2016.

214. NOAH OO, SLABBER J and MEYER JP; Modelling a Porous Region for natural convection heat transfer and experimental validation in slender cylindrical geometries, Nuclear Technology, Vol. 193, No 3, pp. 375 – 390, 2016.

215. TSHIMANGA N, SHARIFPUR M, and MEYER JP; Experimental investigation and model development for thermal conductivity of glycerol-MgO nanofluids, Heat Transfer Engineering, Vol. 37, No. 18, pp. 1538 – 1553, 2016.

216. MAHDAVI M, SHARIFPUR M, and MEYER JP; Simulation study of convective and hydrodynamic turbulent nanofluids by turbulence models, International Journal of Thermal Sciences, Vol. 110, pp. 36 – 51, 2016.

217. PAGE LG, DIRKER J, and MEYER JP; Topology optimization for the conduction cooling of a heat-generating volume with orthotropic material, International Journal of Heat and Mass Transfer, Vol. 103, pp. 1075 – 1083, 2016.

218. CRAIG KJ, MOGHIMI MA, RUNGASAMY AE, MARSBERG J, and MEYER JP; Finite-volume ray tracing using computational fluid dynamics in linear focus applications, Applied Energy, Vol. 183, pp. 241 – 256, 2016.

219. NOORI RAHIM ABADI SMA, AHMADPOUR A, ABADI SMNR, and MEYER JP; CFD-based optimization of steam turbine blade cascade in transonic two phase flows, Applied Thermal Engineering, Vol. 112, pp. 1575 – 1589, 2017.

220. ADELAJA AO, DIRKER J and MEYER JP; Experimental study of the pressure drop during condensation in an inclined smooth tube at different saturation temperatures, International Journal of Heat and Mass Transfer, Vol. 105, pp. 237 – 251, 2017.

221. BRUSLY SOLOMON A, ARUL DANIEL V, RAMACHANDRAN K, PILLAI BC, SHARIFPUR M, and MEYER JP; Performance enhancement of a two-phase closed thermosiphon with a thin porous copper coating, International Communications in Heat and Mass Transfer, Vol. 82, pp. 9-19, 2017.

222. MWESIGYE A and MEYER JP; Optimal thermal and thermodynamic performance of a solar parabolic trough receiver with different nanofluids and at different concentration ratios, Applied Energy, Vol. 193, pp. 393 – 413, 2017.

223. NDENGUMA DD, DIRKER J, and MEYER JP; Transitional Flow Regime Heat Transfer and Pressure Drop in an Annulus with Non-Uniform Wall Temperatures, International Journal of Heat and Mass Transfer, Vol. 108, pp. 2239 – 2252, 2017.

224. BASEER MA, MEYER JP, REHMAN S, and ALAM MM; Wind power characteristics of seven data collection sites in Jubail, Saudi Arabia using Weibull parameters, Renewable Energy, Vol. 102, pp. 35 – 49, 2017.

225. BRUSLY SOLOMON A, SHARIFPUR M, OTTERMAN T, GROBLER C, JOUBERT M, and MEYER JP; Natural convection enhancement in a porous cavity with Al_2O_3-Ethylene glycol/water nanofluids, International Journal of Heat and Mass Transfer, Vol. 108, pp. 1324 – 1334, 2017.

226. MAHDAVI M, SHARIFPUR M, GHODSINEZHAD H, and MEYER JP; A new combination of nanoparticles mass diffusion flux and slip mechanism approaches with electrostatic forces in a natural convective cavity flow, International Journal of Heat and Mass Transfer, Vol. 106, pp. 980 – 988, 2017.

227. MAHDAVI M, SHARIFPUR M, and MEYER JP; Implementation of diffusion and electrostatic forces to produce a new slip velocity in the multiphase approach to nanofluids, Powder Technology, Vol. 307, pp. 153 – 162, 2017.

228. AHMADPOUR A, NOORI RAHIM ABABI SMA, and MEYER JP; On the performance enhancement of thermo-compressor and steam turbine blade cascade in the presence of spontaneous nucleation, Energy, Vol. 119, pp. 675 – 693, 2017.

229. ADEWUMI OO, BELLO-OCHENDE T and MEYER JP; Numerical investigation into the thermal performance of single microchannels with varying axial length and different shapes of micro pin-fin inserts, Heat Transfer Engineering, Vol. 38, No. 13, pp. 1157 – 1170, 2017.

230. SHARIFPUR M, TSHIMANGA N, MEYER JP, and MANCA O, Experimental investigation and model development for thermal conductivity of α-Al_2O_3-glycerol nanofluids, International Communications in Heat and Mass Transfer, Vol. 85, pp. 12-22, 2017.

231. SOLOMON AB, RAM KUMAR AM, RAMACHANDRAN K, PILLAI BC, KUMAR CS, SHARIFPUR M, and MEYER JP; Characterization of a grooved heat pipe with an anodised surface, Heat and Mass Transfer, Vol. 53, No. 3, pp. 753 – 763, 2017.

232. NDENGUMA DD, DIRKER J, and MEYER JP; Heat transfer and pressure drop in annuli with approximately uniform internal wall temperatures in the transitional flow regime, International Journal of Heat and Mass Transfer, Vol. 111, pp. 429 – 441, 2017.

233. OKAFOR IF, DIRKER J, and MEYER JP; Influence of non-uniform heat flux distributions on the secondary flow, convective heat transfer and friction factors for a parabolic trough solar collector type absorber tube, Renewable Energy, Vol. 108, pp. 287 – 302, 2017.

234. KEMPSON WJ, WEBBER-YOUNGMANN RCW and MEYER JP; Application of computational fluid dynamic modelling in the design of shaft systems, Journal of the Mine Ventilation Society of South Africa, Vol. 70, no. 3, 24 - 32, 2017.

235. MOGHIMI MA, CRAIG KJ, and MEYER JP; Simulation-based optimisation of a Linear Fresnel Collector mirror field and receiver for optical, thermal and economic performance, Solar Energy, Vol. 153, pp. 655 – 678, 2017.

236. JOUBERT JC, SHARIFPUR M, SOLOMON AM and MEYER JP; Enhancement in heat transfer of a ferrofluid in a differentially heated square cavity through the use of permanent magnets, Journal of Magnetism and Magnetic Materials, Vol. 443, pp. 149 – 158, 2017.

237. PRETORIUS HJ, MAHMOOD G and MEYER JP; Static pressure characteristics in a pin-fin channel with shaped cylindrical pins, Journal of Fluids Engineering, Vol. 139, No. 9, pp. 091104-1 – 091104-5, 2017.

238. SMITH L, CRAIG KJ, MEYER JP, and SPEDDING GR; Modifying low-drag bodies to generate lift: a computational study, AIAA Journal of Aircraft, Vol. 54, No. 3, pp. 1150–1161, 2017.

239. BEJAN A, LORENTE S, MARTINS L and MEYER JP; The constructal size of a heat exchanger, Journal of Applied Physics, Vol. 122, pp. 064902-1 – 064902-6, 2017.

240. SOLOMON AB, VAN ROOYEN J, RENCKEN M, SHARIFPUR M and MEYER JP; Experimental study on the influence of the aspect ratio of square cavity on natural convection heat transfer with Al_2O_3/water nanofluids, International Communications in Heat and Mass Transfer, Vol. 88, pp. 254 – 261, 2017.

241. GARBADEEN IM, SHARIFPUR M, SLABBER JM and MEYER JP; Experimental study on natural convection of MWCNT-water nanofluids in a square enclosure, International Communications in Heat and Mass Transfer, Vol. 88, pp. 254 – 261, 2017.

242. JOKAR MA, AHMADI MH, SHARIFPUR M, MEYER JP, POURFAYAZ F and MING T; Thermodynamic evaluation and Multi-Objective Optimization of molten carbonate fuel cell-supercritical CO_2 Brayton cycle hybrid system, Energy Conversion and Management, Vol. 153, pp. 538 – 556, 2017.

243. BASEER MA, REHMAN S, MEYER JP and ALAM MM; GIS-based site suitability analysis for wind farm development in Saudi Arabia, Energy, Vol. 141, pp. 1166 – 1176, 2017.

244. BORNMAN W, DIRKER J, MEYER JP, and ARNDT DC; Integrated energy simulation of a deep level mine cooling system through a combination of forward and first-principle models applied to system-side parameters, Applied Thermal Engineering, Vol. 123, pp. 1166 – 1180, 2017.

245. DIRKER J, MEYER JP and KOHLMEYER B; Local heat transfer coefficients at the inlet of an annular flow passage, International Journal of Heat and Mass Transfer, Vol. 113, pp. 268 – 280, 2017.

246. MAHDAVI M, SHARIFPUR M, and MEYER JP; A novel combined model of discrete and mixture phases for nanoparticles in convective turbulent flow, Physics of Fluids, Vol. 29, No. 8, art. No: 082005, pp. 082005-1 – 082005-12, 2017.

247. MEYER JP and ABOLARIN SM; Heat transfer and pressure drop in the transitional flow regime for a smooth circular tube with twisted tape inserts and a square-edge inlet, International Journal of Heat and Mass Transfer, Vol. 117, pp. 11-29, 2018.

248. MEYER JP and EVERTS M; Single-phase mixed convection of developing and fully developed flow in smooth horizontal circular tubes in the laminar and transitional flow regimes, International Journal of Heat and Mass Transfer, Vol. 117, pp. 1251 – 1273, 2018.

249. EVERTS M and MEYER JP; Heat transfer of developing and fully developed flow in smooth horizontal tubes in the transitional flow regime", International Journal of Heat and Mass Transfer, Vol. 117, pp. 1331 – 1351, 2018.

250. EVERTS M and MEYER JP; Relationship between pressure drop and heat transfer of developing and fully developed flow in smooth horizontal circular tubes in the laminar, transitional, quasi-turbulent and turbulent flow regimes, International Journal of Heat and Mass Transfer, Vol. 117, pp. 1231 – 1250, 2018.

251. EVERTS M and MEYER JP; Flow regime maps for smooth horizontal tubes at a constant heat flux, International Journal of Heat and Mass Transfer, Vol. 117, pp. 1274 – 1290, 2018.

252. MEYER JP, EVERTS M, HALL ATC, MULOCK-HOUWER FA, JOUBERT M, PALLENT LMJ and VAUSE ES; Inlet tube spacing and protrusion inlet effects on multiple circular tubes in the laminar, transitional and turbulent flow regimes, International Journal of Heat and Mass Transfer, Vol. 118, pp. 257 – 274, 2018.

253. SANAMA C, SHARIFPUR M and MEYER JP; Mathematical modeling of orifice downstream flow under flow-accelerated corrosion, Nuclear Engineering and Design, Vol. 326, pp. 285 – 289, 2018.

254. MWESIGYE A, YILMAZ IH and MEYER JP; Numerical analysis of the thermal and thermodynamic performance of a parabolic trough solar collector using SWCNTs-Therminol®VP-1 nanofluid, Renewable Energy, Vol. 119, pp. 844 – 862, 2018.

255. MEYER JP and EWIM DRE; Heat transfer coefficients during the condensation of low mass fluxes in smooth horizontal tubes, International Journal of Multiphase Flow, Vol. 99, pp. 485 – 499, 2018.

256. MAHDAVI M, SHARIFPUR M, GHODSINEZHAD H and MEYER JP: Experimental and numerical investigation on a water-filled cavity natural convection to find the proper thermal boundary conditions for simulations, Heat Transfer Engineering, Vol. 39, No. 4, pp. 359 – 373, 2018.

257. NOORI RAHIM ABADI SMA, MEYER JP and DIRKER J; Effect of inclination angle on the condensation of R134a inside an inclined tube, Chemical Engineering Research and Design, Vol. 132, pp. 346 – 357, 2018.

258. EWIM DRE, MEYER JP and NOORI RAHIM ABADI SMA; Condensation heat transfer coefficients in an inclined smooth tube at low mass fluxes, International Journal of Heat and Mass Transfer, Vol. 123, pp. 455 – 467, 2018.

259. JAHANGIR MH, GHAZVINI M, POURFAYAZ F, AHMADI MH, SHARIFPUR M and MEYER JP; Numerical investigation into mutual effects of soil thermal and isothermal properties on heat and moisture transfer in unsaturated soil applied as thermal storage system, Numerical Heat Transfer, Vol. 73, pp. 466-481, No. 7, 2018.

260. ABADI SMA and MEYER JP; Numerical investigation into the inclination effect on conjugate pool boiling and the condensation of steam in a passive heat removal system, International Journal of Heat and Mass Transfer, Vol. 122, pp. 1366 – 1382, 2018.

261. AHMADPOUR A, NOORI RAHIM ABADI SMA and MEYER JP; Numerical investigation of pool boiling on a staggered tube bundle for different working fluids, International Journal of Multiphase flow, Vol. 104, pp. 89 – 102, 2018.

262. NOORI RAHIM ABADI SMA, MEHRABI M and MEYER JP; Prediction and optimization of condensation heat transfer coefficients and pressure drops of R134a inside an inclined smooth tube, International Journal of Heat and Mass Transfer, Vol. 124, pp. 953 – 966, 2018.

263. MAHDAVI M, SHARIFPUR M and MEYER JP; Exploration of nanofluid pool boiling and deposition on a horizontal cylinder in Eulerian and Lagrangian frames, International Journal of Heat and Mass Transfer, Vol. 125, pp. 959 – 971, 2018.

264. NOORI RAHIM ABADI SMA, MEHRABI B and MEYER JP; Numerical study of steam condensation inside a long, inclined, smooth tube at different saturation temperatures, International Journal of Heat and Mass Transfer, Vol. 126, pp. 15 – 25, 2018.

265. DIRKER J, MEYER JP and REID WJ; Experimental investigation of circumferentially non-uniform heat flux on the heat transfer coefficient in a smooth horizontal tube with buoyancy driven secondary flow, Experimental Thermal and Fluid Flow, Vol. 98, pp. 480 – 496, 2018.

266. MAHDAVI M, SHARIFPUR M, and MEYER JP; Discrete modelling of nanoparticles in mixed convection flows, Powder Technology, Vol. 338, pp. 243 – 252, 2018.

267. ADEWUMI GA, INAMBAO F, SHARIFPUR M and MEYER JP; Investigation of the viscosity and stability of green nanofluids from coconut fibre carbon nanoparticles: Effect of temperature and mass fraction, International Journal of Applied Engineering Research, Vol. 13, Nr. 10, pp. 8336 – 8342, 2018.

268. NOORI RAHIM ABADI SMA, AHMADPOUR A and MEYER JP; Numerical simulation of pool boiling on smooth, vertically aligned tandem tubes, International Journal of Thermal Sciences, Vol. 132, pp. 628 – 644, 2018.

269. NOORI RAHIM ABADI SMA, MEHRABI M, MEYER JP and DIRKER J; Effect of saturation temperature on the condensation of R134a inside an inclined smooth tube, International Journal of Refrigeration, Vol. 94, pp. 186 – 204, 2018.

270. SHARIFPUR M, SOLOMON AB, OTTERMANN TL and MEYER JP; Optimum concentration of nanofluids for heat transfer enhancement under cavity flow natural convection with TiO_2 – water, International Communications in Heat and Mass Transfer, Vol. 98, pp. 297 – 303, 2018.

271. CRAMER L, MAHMOOD GI and MEYER JP; Thermohydraulic performance of a channel employing wavy porous screens, Heat Transfer Research, Vol. 49, No. 18, pp. 1867 – 1883, 2018.

272. NOORI RAHIM ABADI SMA, MEYER JP and DIRKER J; Numerical simulation of condensation inside an inclined smooth tube, Chemical Engineering Science, Vol. 182, pp. 132 – 145, 2018.

273. PRINSLOO FPA, DIRKER J and MEYER JP; Heat transfer direction dependence of heat transfer coefficients in annuli, Heat and Mass Transfer, Vol. 54, No. 4, pp. 1145 – 1161, 2018.

274. ADEWUMI OO, BELLO-OCHENDE T and MEYER JP; Analysis of the thermal performance of single and multi-layered microchannels with fixed volume constraint, Proceedings of the Romanian Academy, Series A, Special issue, pp. 154 – 159, 2018.

275. ARDEKANI MM, CRAIG KJ and MEYER JP; Annual performance optimization of a linear Fresnel collector in Pretoria, South Africa, AIP Conference Proceedings, 2033, 050001, 2018

276. KUMIRAI T, DIRKER J and MEYER JP; Experimental analysis for thermal storage performance of three types of plate encapsulated phase change materials in air heat exchangers for ventilation applications, Journal of Building Engineering, Vol. 22, pp. 75 – 89, 2019

277. ABOLARIN SM, EVERTS M and MEYER JP; The influence of peripheral u-cut twisted tapes and ring inserts on the heat transfer and pressure drop characteristics in the transitional flow regime, International Journal of Heat and Mass Transfer, Vol. 132, pp. 970 – 984, 2019.

278. ABOLARIN SM, EVERTS M and MEYER JP; Heat transfer and pressure drop characteristics of alternating clockwise and counter clockwise twisted tape inserts in the transitional flow regime, International Journal of Heat and Mass Transfer, Vol. 133, pp. 203 – 217, 2019.

279. EWIM DRE and MEYER JP; Pressure drop during condensation at low mass fluxes in smooth horizontal and inclined tubes, International Journal of Heat and Mass Transfer, Vol. 133, pp. 686 – 701, 2019.

280. OSMAN S, SHARIFPUR M and MEYER JP; Experimental investigation of convection heat transfer in the transitional flow regime of aluminium oxide-water nanofluids in a rectangular channel, International Journal of Heat and Mass Transfer, Vol. 133, pp. 895 – 902, 2019.

281. NOORI RAHIM ABADI SMA, DAVIES WA, HRNJAK P and MEYER JP; Numerical study of steam condensation inside a long inclined flattened channel, International Journal of Heat and Mass Transfer, Vol. 134, pp. 450 – 467, 2019.

282. RUNGASAMY AE, CRAIG KJ and MEYER JP; Comparative study of the optical and economic performance of etendue-conserving compact linear Fresnel reflector concept, Solar Energy, Vol. 181, pp. 95 – 107, 2019.

283. AHMADI MH, NAZARI MA, SADEGHZADEH M, POURFAYAZ F, GHAZVINI M, MING T, MEYER JP and SHARIFPUR M; Thermodynamic and economic analysis of performance evaluation of all thermal power plants: A review, Energy Science and Engineering, Vol. 6, pp. 30 – 65, 2019.

284. OKAFOR IF, DIRKER J and MEYER JP; Asymmetrical non-uniform heat flux distributions for laminar flow heat transfer with mixed convection in a horizontal circular tube, Heat Transfer Engineering, Vol. 40, No. 1-2, pp. 109 – 127, 2019.

285. DIRKER J, JUGGURNATH D, KAYA A, OSOWADE EA, SIMPSON M, LECOMPTE S, NOORI RAHIM ABADI SMA, VOULGAROPOULOS V, ADELAJA AO, DAUHOO MZ, KHOODARUTH A, OABAYOPO SO, OLABODE OT, ELAHEE MK, DE PAEPE M, MEYER JP, and MARKIDES CN (Review); Thermal energy processes in direct steam generation solar systems: Boiling, condensation and energy storage – a review, Frontiers in Energy Research, section Solar Energy, Vol. 6, 1 – 35, 2019.

286. SMITH L, CRAIG KJ, MEYER JP and SPEDDING GR; Numerical investigation of the aerodynamic performance for an alternative wing-body-tail configuration, Journal of Aircraft, Vol. 56, No. 1, pp. 250 – 261, 2019.

287. AFRA M, NAZARI M, KAYHANI MH, SHARIFUR M, and MEYER JP; 3D experimental visualization of water flooding in proton exchange membrane fuel cells, Energy, vol. 175, pp. 967 – 977, 2019.

288. MEYER JP; EVERTS M, COETZEE N, GROTE K and STEYN M; Heat transfer coefficients of laminar, transitional, quasi-turbulent and turbulent flow in circular tubes, International Communications in Heat and Mass Transfer, Vol. 105, pp. 84 – 106, 2019.

289. SLOOTWEG M, CRAIG K.J. and MEYER JP; A computational approach to simulate the optical and thermal performance of a novel complex geometry solar tower molten salt cavity receiver. Solar Energy, Vol. 187, pp. 13 – 29, 2019.

290. NOORI RAHIM ABADI SMA, AHMADPOUR A and MEYER JP; Effects of vibration on pool boiling heat transfer from a vertically aligned array of heated tubes, International Journal of Multiphase Flow, Vol. 118, pp. 97 – 112, 2019.

291. KUCZYNSKI W, BOHDAL T, MEYER JP and DENIS A; A regressive model for dynamic instabilities during condensation R404A and R507 refrigerants, International Journal of Heat and Mass Transfer, Vol. 141, pp. 1025 – 1035, 2019.

292. BOCK B, MEYER JP and THOME JR; Falling film boiling and pool boiling on plain circular tubes: Influence of surface roughness, surface material and saturation temperature on heat transfer and dryout, Experimental Thermal and Fluid Science, Vol. 109, pp. 1 – 15, paper number 109870, 2019.

293. NEYESTANI M, NAZARI M, SHAHMARDAN MM, SHARIFPUR M and MEYER JP; Thermal characteristics of CPU cooling by using a novel porous heat sink and nanofluids: comparative experimental study, Journal of Thermal Analysis and Calorimetry, Vol. 138, pp. 805 – 817, 2019.

294. ADEWUMI GA, INAMBAO F, SHARIFPUR M and MEYER JP; Thermal conductivity of nanofluids prepared from biobased nanomaterials dispersed in 60:40 ethylene glycol/water base fluid, International Journal of Mechanical Engineering and Techology, Vol. 10, No. 6, pp. 151 – 159, 2019.

295. MEYER JP, BASHIR AI and EVERTS M; Single-phase mixed convection heat transfer and pressure drop in the laminar and transitional flow regimes in smooth inclined tubes heated at a constant heat flux, Experimental Thermal and Fluid Science, Vol. 109, paper number 109890, 2019.

296. BASHIR AI, EVERTS M, BENNACER R and MEYER JP; Single-phase forced convection heat transfer and pressure drop in tubes in the laminar and transitional flow regimes, Experimental Thermal and Fluid Science, Vol. 109, paper number 109891, 2019.

297. BASHIR AI, EVERTS M and MEYER JP; Influence of inlet contraction ratios on the heat transfer and pressure drop characteristics of single-phase flow in smooth circular tubes in the transitional flow regime, Experimental Thermal and Fluid Science, Vol. 109, paper number 109892, 2019.

298. RANJAN H, BHARTI AK, EMANI MS, MEYER JP and SAHA SK; New combined heat transfer enhancement techniques used in laminar flow through non-circular ducts, Applied Thermal Engineering, Vol. 163, 114325, 2019.

299. ADELAJA AO, EWIM DRE, DIRKER J and MEYER JP; Heat transfer, void fraction and pressure drop during condensation inside inclined smooth and microfin tubes, Experimental Thermal and Fluid Science, Vol. 109, 109905, 2019.

300. EMANI MS, RANJAN H, BHARTI AK, MEYER JP and SAHA SK; Laminar flow heat transfer enhancement in square and rectangular channels having: (1) A wire-coil, axial and spiral corrugation combined with helical screw-tape with and without oblique teeth and a (2) spiral corrugation combined with twisted tapes with oblique teeth, International Journal of Heat and Mass Transfer, 144, 118707, 2019.

301. EVERTS M and MEYER JP; Heat transfer coefficients for quasi-turbulent and turbulent flow in solar receiver tubes, AIP Conference Proceedings, 2126, 120006, 2019.

302. MOGHIMI MA, AHMADI G, YANG M and MEYER JP; Minimising mirror soiling of a PTC plant by an optimum wind barrier design, AIP Conference Proceedings, 2126, 120012, 2019.

303. MEHRABI M, SHARIFPUR M and MEYER JP; Electrical conductivity and pH modelling of magnesium oxide-ethylene glycol nanofluids, Bulletin of Materials Science, Vol. 42(3), 108, 2019.

304. MAHDAVI M, GARBADEEN I, SHARIFPUR M, AHMADI MH and MEYER JP; Study of particle migration and deposition in mixed convective pipe flow of nanofluids at different inclination angles, Journal of Thermal Analysis and Calorimetry, Vol. 135, No. 2, pp. 1563-1575, 2019.

305. MAHDAVI M, SHARIFPUR M, AHMADI MH and MEYER JP; Aggregation study of Brownian nanoparticles in convective phenomena, Journal of Thermal Analysis and Calorimetry, Vol 135, No. 1, pp. 111-121, 2019.

306. MEYER JP and EVERTS M; A review of the recent developments in laminar, transitional, quasi-turbulent and turbulent forced and mixed convective flow through horizontal tubes; Advances in Heat Transfer, Vol. 51, pp. 131-205, 2019.

307. ADELAJA AO, DIRKER J and MEYER JP; Condensation heat transfer coefficients and enhancements of R134a in smooth and microfin inclined tubes, Energy Procedia, Vol, 158, pp. 5299-5304, 2019.

308. DAVID I, ADELAJA AO, OMOSEHIN OS, OLAKOYEJO OT and MEYER JP; The influence of media properties, geometric and operational parameters on the thermal performance of bilayered composite cylinder, Energy Procedia, Vol. 158, pp. 5427-5432, 2019.

309. ADEWUMI OO, BELLO-OCHENDE T and MEYER JP; Analysis of the thermal performance of single and multi-layered microchannels with fixed volume constraint, Proceedings of the Romanian Academy Series A – Mathematics Physics Technical Sciences Information Science, Vol. 19, pp. 154-159, 2019.

310. NOAH OO, SLABBER JF and MEYER JP; Introducing passive nuclear safety in water-cooled reactors – Numerical simulation and validation of natural convection heat transfer and transport in packed beds of heated microspheres, 27th International Conference in Nuclear Engineering Proceedings, ICONE, May 19-24, 2019.

311. JUGGURNATH D, DAUHOO MZ, ELAHEE MK, MEYER JP and MARKIDES CN; Numerical simulations of condensing R134a flows in horizontal pipes, Proceedings of the Thermal and Fluids Engineering Summer Conference, pp. 413-422, TFEC-2019-28053, 2019.

312. NEMATI H, MORADAGAHAY M, SHEKOOHI SA, MOGHMIMI MA and MEYER JP; Natural convection heat transfer from horizontal annular finned tubes based on modified Rayleigh number, International Communications in Heat and Mass Transfer, Vol. 110, paper number: 104370, 2020.

313. GIWA SO, SHARIFPUR M and MEYER JP; Effects of uniform induction on heat transfer performance of aqueous hybrid ferrofluid in a rectangular cavity, Applied Thermal Engineering, Vol. 170, paper number: 115004, 2020.

314. EVERTS M and MEYER JP; Laminar hydrodynamic and thermal entrance lengths for simultaneously hydrodynamically and thermal developing forced and mixed convective flows in horizontal tubes, Experimental Thermal and Fluid Science, Vol. 118, paper number: 110153, 2020.

315. GIWA SO, SHARIFPUR M, AHMADI MH and MEYER JP; Magnetohydrodynamic convection behaviours of nanofluids in non-square enclosures: a comprehensive review, Mathematical Methods in the Applied Sciences, pp. 1 – 59, 2020.

316. AGHAKHANI S, PORDANJANI AH, AFRAND M, SHARIFPUR M, and MEYER, JP; Natural convective heat transfer and entropy generation of alumina/water nanofluid in a tilted enclosure with an elliptic constant temperature: Applying magnetic field and radiation effects, International Journal of Mechanical Sciences, Vol. 174, article number: paper number: 105470, 2020.

317. SHOTE, AS, MAHMOOD, GI and MEYER JP; Influences of large fillets on endwall flows in a vane cascade with upstream slot film-cooling, Experimental Thermal and Fluid Science, Vol. 112, paper number: 109951, 2020.

318. VARUGHESE A, SOLOMON AB, RAJ B, SHARIFPUR M and MEYER JP; Heat transfer characteristics and flow visualization of anodized flat thermosiphon, Proceedings of the Institution of Mechanical Engineers, Part E: Journal of Process Mechanical Engineering, Vol. 234, No. 2, pp. 182-192, 2020.

319. GIWA, SO, SHARIFPUR, M and MEYER JP; Experimental study of thermo-convection performance of hybrid nanofluids of Al2O3-MWCNT/water in a differentially heated square cavity, International Journal of Heat and Mass Transfer, Vol. 148, paper number: 119072, 2020.

320. MEHRABI, M, ABADI, SMANR and MEYER JP; Heat Transfer and fluid flow optimization of titanium dioxide–water nanofluids in a turbulent flow regime, Heat Transfer Engineering, Vol. 41, No.1, pp. 36-49, 2020.

321. VERMAAK M, POTGIETER J, DIRKER J, MOGHIMI MA, VALLURI P, SEFIANE K and MEYER JP; Experimental and numerical investigation of micro/mini channel flow-boiling heat transfer with non-uniform circumferential heat fluxes at different rotational orientation, International Journal of Heat and Mass Transfer, Vol. 158, paper number: 119948, 2020.

322. MAHDAVI M, SHARIFPUR M, MEYER JP and CHEN L; Thermal analysis of a nanofluid free jet impingement on a rotating disk using volume of fluid in combination with discrete modelling, International Journal of Thermal Sciences, Vol. 158, paper number 106532, 2020.

323. GIWA SO, SHARIFPUR M and MEYER JP; Experimental investigation into heat transfer performance of water-based magnetic hybrid nanofluids in a rectangular cavity exposed to magnetic excitation, International Communications in Heat and Mass Transfer, Vol. 116, paper number 104698, 2020.

324. ADELAJA AO, EWIM DRE, DIRKER J and MEYER JP; An improved heat transfer correlation for condensation inside inclined smooth tubes, International Communications in Heat and Mass Transfer, Vol. 117, paper number: 104746, 2020.

325. EVERTS M, BHATTACHARYYA S, BASHIR AL and MEYER JP; Heat transfer characteristics of assisting and opposing laminar flow through a vertical circular tube at low Reynolds numbers, Applied Thermal Engineering, Vol. 179, paper number: 115696, 2020.

326. RASTAN H, ABDI A, HAMAWANDI B, IGNATOWICZ M, MEYER JP and PALM B; Heat transfer study of enhanced addively manufactured minichannel heat exchangers, International Journal of Heat and Mass Transfer, Vol. 161, paper number: 120271, 2020.

327. GOVINDER K, SLABBER JFM and MEYER JP; External surface temperature measurements for the heat transfer analysis of internal heated cylindrical clad-tubes subjected to external forced convection bulk water coolant thermal-hydraulic conditions, Nuclear Engineering and Design, Vol. 368, paper number 110779, 2020.

328. NEMATI H, MORADAGAHAY M, MOGHIMI MA and MEYER JP; Natural convection heat transfer over horizonatal annular elliptical finned tubes, International Journal of Heat and Mass Transfer, Vol. 118, paper number 104823, 2020.

329. MAHDAVI M, SHARIFPUR M and MEYER JP: Fluid flow and heat transfer analysis of nanofluid jet cooling on a hot surface with various rougness, Inernational Cmmunications in Heat and Mass Transfer, Vol. 118, paper number 104842, 2020.

330. BOCK BD, BUCCI M, MARKIDES CN, THOME JR and MEYER JP; Pool boiling of refrigerants over nanostructured and roughned tubes, International Journal of Heat and Mass Transfer, Vol. 162, paper number 120387, 2020.

331. BOCK BD, BUCCI M, MARKIDES CN, THOME JR and MEYER JP; Falling film boiling of refrigerants over nanostructured and roughned tubes: heat transfer, dryout and critical heat flux, International Journal of Heat and Mass Transfer, Vol. 163, paper number 120452, 2020.

332. SINGH SK, BHATTACHARYYA S, PAUL AR, SHARIFPUR M and MEYER JP; Augmentation of heat transfer in a microtube and a wavy microchannel using hybrid nanofluid: a numerical investigation, Mathematical Methods in the Applied Sciences, 1-22, May 2020.

333. CRAIG KJ, SLOOTWEG M, LE ROUX WG and MEYER JP; Using CFD and ray tracing to estimate the heat losses of a tubular cavity dish receiver for different inclination angles, Solar Energy, Vol. 211, pp. 1137-1158, 2020.

334. NAGHIBZADEH SM, GOHARKHAH M, SHARIFPUR M and MEYER JP; Effects of interphase momentum exchange models on simulation of subcooled flow boiling, International Communications in Heat and Mass Transfer, Vol. 18, paper number 104863, 2020.

335. YAN SR, GOLZAR A, SHARIFPUR M, MEYER JP, LIU DH and AFRAND M; Effect of U-shaped absorber tube on thermal-hydraulic performance and efficiency of two-fluid parabolic solar collector containing two-phase hybrid non-Newtonian nanofluids, International Journal of Mechanical Sciences, Vol. 185, paper number 105832, 2020.

336. MWESIGYE A and MEYER JP; Selected papers from the 13th International Heat Transfer, Fluid Mechanics and Thermodynamics, Heat Transfer Engineering Vol. 41 (15-16), paper number 1303-1304, 2020.

337. MURSHED SMS, SHARIFPUR M, GIWA S and MEYER JP; Experimental research and development on the natural convection of suspensions of nanoparticles – a comperehensive review, Nanomaterials, Vol. 10 (9), paper number 1855, pp. 1-32, 2020.

338. DELLAR KE, LE ROUX WG and MEYER JP; Plate-style recuperator for a solar Brayton cycle using high-temperature sealant, Applied Thermal Engineering, Vol. 177, paper number 115439, 2020.

339. MEYER M, MEHRABI M and MEYER JP; Modeling and multi-objective optimization of heat transfer characteristics and pressure drop of nanofluids in microtubes, Heat Transfer Engineering, 2020.

340. ROUX SM, MAHMOOD GI and MEYER JP; Effect of sidepins on the thermohydraulic characteristics of an array of internal pin fins, Heat Transfer Research, Vol. 51 (9), pp. 879-895, 2020.

341. KADIVAR M, SHARIFPUR M and MEYER JP; Convection heat transfer, entropy generation analysis and thermodynamic optimization of nanofluid flow in spiral coil tube, Heat Transfer Engineering, 2020.

342. EJIKE EWIM DR, MEHRABI M and MEYER JP; Modeling of heat transfer coefficients during condensation at low mass fluxes inside horizontal and inclined smooth tubes, Heat Transfer Engineering, 2020.

343. GIWA SO, SHARIFPUR M, AHMADI MH and MEYER JP; A review of magnetic field influence on natural convection heat transfer performance of nanofluids in square cavities, Journal of Thermal Analysis and Calorimetry, 2020.

344. SHARIFPUR M, GIWA SO, LEE KY, GHODSINEZHAD H and MEYER JP; Experimental investigation into natural convection of zinc oxide/water nanofluids in a square cavity, Heat Transfer Engineering, 2020.

345. EWIM DRE, ADELAJA AO, ONYIRIUKA EJ, MEYER JP and HUAN Z; Modelling of heat transfer coefficients during condensation inside an enhanced inclined tube, Journal of Thermal Analysis and Calorimetry, 2020.

346. GIWA SO, MOMIN M, NWAOKOCHA CN, SHARIFPUR M and MEYER JP; Influence of nanoparticles size, per cent mass ratio, and temperature on the thermal properties of water-based MgO-ZnO nanofluid: an experimental approach, 2020.

347. LI Y, KALBASI R, KARIMIPOUR A, SHARIFPUR M and MEYER JP; Using of artificial neural networks (ANNs) to predict the rheological behaviour of magnesium oxide-water nanofluid in a different volume fraction of nanoparticles, temperatures, and shear rates, Mathematical Methods in the Applied Sciences, 2020.

348. GIWA SO, SHARIFPUR M, GOODARZI M, ASULAMI H and MEYER JP; Influence of base fluid, temperature, and concentration on the thermophysical properties of hybrid nanofluids of alumina-ferrofluid: experimental data, modelling through enhanced ANN, ANFIS, and curve fitting, Journal of Thermal Analysis and Calorimetry, 2020.

349. MAHDAVI M, SHARIFPUR M, AHMADI MH and MEYER JP; Nanofluid flow and shear layers between two parallel plates: a simulation approach, Engineering Applications of Computational Fluid mechanics, Vol. 14, No. 1, pp. 1536 – 1545, 2020.

350. ZAHMATKESH I, SHEREMET M, YANG L, JING D, MAHIAN O and MEYER JP; Effect of nanoparticle shape on the performance of thermal systems utilizing nanofluids: A critical review, Journal of Molecular Liquids, Vol. 321, paper number 114430, 2020.

351. SWANEPOEL JK, LE ROUX WG, LEXMOND AS and MEYER JP; Helically coiled solar cavity receiver for micro-scale direct steam generation, Applied Thermal Engineering, Vol. 185, paper number 116427, 2021.

352. GIWA SO, SHARIFPUR M, AHMADI MH, MURSHED SMS and MEYER JP; Experimental investigation on stability, viscosity, and electrical conductivity of water-based hybrid nanofluid of MWCNT-GFe_2O_3, Nanomaterials, Vol. 11, No. 136, 2021.

353. DIRKER J, VAN DEN BERG WJ, MORAN HR, MARKIDES CN and MEYER JP; Influence of inlet vapour quality perturbations on the transient response of flow-boiling heat transfer, International Journal of Heat and Mass Transfer, Vol. 170, paper number 121017, 2021.

354. NEMATI H, MOGHIMI MA and MEYER JP; Shape optimization of wavy mini-channel heat sink, International Communications in Heat and Mass Transfer, Vol. 122, paper number 105172, 2021.

355. GIWA SO, SHARIFPUR M, MEYER JP, WONGWISES S and MAHIAN O; Experimental measurement of viscosity and electrical conductivity of water-based y-Al_2O_3/MWCNT hybrid nanofluids with various particle mass ratios, Journal of Thermal Analysis and Calorimetry, 2021.

356. ROSTAMI S, AGHAEI A, HASSANI JOSHAGHANI A, SHARIFPUR M and MEYER JP; Thermal-hydraulic efficiency management of spiral heat exchanger filled with Cu-ZnO/water hybrid nanofluid, Journal of Thermal Analysis and Calorimetry, vol. 143 (2), pp. 1569-1582, 2021.

357. DIRKER J, MEYER JP and STEYN RM; Influence of ring type flow turbulators on the local heat transfer coefficients in an annular passage – An experimental and numerical investigation, International Journal of Thermal Sciences, Vol. 168, paper number: 107052, 2021.

358. MAHDAVI M, SHARIFPUR M, AYBAR M, CHAMKHA AJ and MEYER JP; Impact of micro-fins on a heated cylinder submerged in a nanofluid saturated medium, International Journal of Heat and Mass Transfer, Vol. 177, paper number: 121551, 2021.

359. RUNGASAMY AE, CRAIG KJ and MEYER JP; A review of linear Fresnel primary optical design methodologies, Solar Energy, Vol. 224, pp. 833 – 854, 2021.

360. MORAN HR, ZOGG D, VOULGAROPOULOS V, VAN DEN BERGH WJ, DIRKER J, MEYER JP, MATAR OK and MARKIDES CN; An experimental study of the thermohydraulic characteristics of flow boiling in horizontal pipes: Linking spatiotemporally resolved and integral measurements, Applied Thermal Engineering, Vol. 194, paper number 117085, 2021.

361. JAMEI M, AHMADIANFAR I, OLUMEGBON IA, ASADI A, KARBASI M, SAID Z, SHARIFPUR M and MEYER JP; On the specific heat capacity estimation of metal oxide-based nanofluid for energy perspective – A comprehensive assessment of data analysis techniques, International Communications in Heat and Mass Transfer, Vol. 123, paper number 105217, 2021.

362. GIWA SO, SHARIFPUR M, GOODARZI M, ALSULAMI H and MEYER JP; Influence of base fluid, temperature, and concentration on the thermophysical properties of hybrid nanofluids of alumina–ferrofluid: experimental data, modeling through enhanced ANN, ANFIS, and curve fitting; Journal of Thermal Analysis and Calorimetry, Vol. 143 (6), pp. 4149-4167, 2021.

363. SIDDIQUE MU, SYED A, KHAN SA and MEYER JP; On numerical investigation of heat transfer augmentation of flat target surface under impingement of steady air jet for varying heat flux boundary condition; Journal of Thermal Analysis and Calorimetry, 2021.

364. BHATTACHARYYA S, VISHWAKARMA DK, GOEL V, CHAMOLI S, ISSAKHOV A and MEYER JP; Thermodynamics and heat transfer study of a circular tube embedded with novel perforated angular-cut alternate segmental baffles; Journal of Thermal Analysis and Calorimetry, 2021.

365. KARADEMIR H, ÖZÇELIK G, AÇIKGÖZ Ö, DALKILIÇ AS, İNCE İT, MEYER JP AND WONGWISES S; Comprehensive review on the flow characteristics of two-phase flows in inclined tubes; Journal of Thermal Engineering, Vol. 7 (3), pp. 483-549, 2021.

366. VAN DEN BERGH WJ, MORAN HR, DIRKER J, MARKIDES CN and MEYER JP: Effect of low heat and mass fluxes on the boiling heat transfer coeeficient of R-245fa, International journal of Heat and Mass Transfer, Vol. 180, paper number 121743, 2021.

367. AJITH K, PILLAI AS, ENOCH IVMV, SHARIFPUR M, SOLOMON B and MEYER JP; Effect of the non-electrically conductive spindle on the viscosity measurements of nanogluids subjected to the magnetic field, Colloids and Surface A: physiochemical and engineering aspects, Vol. 628, paper number, 127252, 2021.

368. POTGIETER J, LOMBAARD L, HANNAY J, MOGHIMI MA, VALLURI P, and MEYER JP; Adaptive mesh refinement method for the reduction of computational costs while simulating slug flow, International Communications in Heat and Mass Transfer, Vol. 129, paper number 105702, 2021.

369. LOMBAARD L, MOGHIMI MA, VALLURI P, and MEYER JP; Interaction between multiple bubbles in microchannel flow boiling and the effects on heat transfer, International Communications in Heat and Mass Transfer, Vol. 129, paper number 105703, 2021.

370. ADELAJA AO, DIRKER J, and MEYER JP; Experimental study of entropy generation during condensation in inclined enhanced tubes, International Journal of Multiphase Flow, Vol. 145, paper number 103841, 2021.

371. EFEMWENKIEKIE KU, OYEDEPO SO, GIWA S, SHARIFPUR M, OWOEYE TF, AKINLABU KD and MEYER JP; Experimental investigation of heat transfer performance of novel bio-extract doped mono and hybrid nanofluids in a radiator, Case Studies in Thermal Engineering, paper number 101494, 2021.

372. POULAIN P, CRAIG KJ and MEYER JP; Transient simulation of an atmospheric boundary layer flow past a heliostat using the Scale-Adaptive Simulation turbulence model, Journal of Wind Engineering and Industrial Aerodynamics, Vol. 218, paper number 104740, 2021.

373. BORODE AO, AHMED NA, OLUBAMBI PA, SHARIFPUR M and MEYER JP; Effect of Various Surfactants on the Viscosity, Thermal and Electrical Conductivity of Graphene Nanoplatelets Nanofluid, International Journal of Thermophysics, Vol. 42, No. 11, pp.1-15, 2021.

374. PORDANJANI AH, AGHAKHANI S, AFRAND M, SHARIFPUR M, MEYER JP, XU H, ALI HM, KARIMI N. and CHERAGHIAN G; Nanofluids: Physical phenomena, applications in thermal systems and the environment effects-a critical review, Journal of Cleaner Production, paper number 128573, 2021.

375. KHETIB Y, ABO-DIEF HM, ALANAZI AK, SAJADI SM, SHARIFPUR M and MEYER JP; A Computational Fluid Dynamic Study on Efficiency of a Wavy Microchannel/Heat Sink Containing Various Nanoparticles. Micromachines, Vol. 12, No. 10, paper number 1192, 2021.

376. SEAL MK, ABADI SNR, MEHRABI M and MEYER JP; Machine learning classification of in-tube condensation flow patterns using visualization, International Journal of Multiphase Flow, Vol. 143, paper number 103755, 2021.

377. EWIM DRE, ADELAJA AO, ONYIRIUKA EJ, MEYER JP and HUAN Z; Modelling of heat transfer coefficients during condensation inside an enhanced inclined tube, Journal of Thermal Analysis and Calorimetry, Vol. 146, No. 1, pp.103-115, 2021.

378. GIWA SO, SHARIFPUR M, AHMADI MH and MEYER JP; A review of magnetic field influence on natural convection heat transfer performance of nanofluids in square cavities, Journal of Thermal Analysis and Calorimetry, Vol. 145, No. 5, pp, 2581-2623, 2021.

379. BORODE AO, AHMED NA, OLUBAMBI PA, SHARIFPUR M and MEYER JP; Investigation of the Thermal Conductivity, Viscosity, and Thermal Performance of Graphene Nanoplatelet-Alumina Hybrid Nanofluid in a Differentially Heated Cavity, Frontiers in Energy Research, paper number 482, 2021.

380. NEMATI H, MOGHIMI MA and MEYER JP; Shape optimisation of wavy mini-channel heat sink, International Communications in Heat and Mass Transfer, Vol. 122, paper number 105172, 2021.

381. REHMAN S, NATARAJAN N, MOHANDES MA, MEYER JP, ALAM MM and ALHEMS LM; Wind and wind power characteristics of the eastern and southern coastal and northern inland regions, South Africa, Environmental Science and Pollution Research, pp. 1-13, 2021.

382. KADIVAR M, SHARIFPUR M and MEYER JP; Convection heat transfer, entropy generation analysis and thermodynamic optimization of nanofluid flow in spiral coil tube. Heat Transfer Engineering, Vol. 42, No. 18, pp.1573-1589, 2021.

383. GIWA SO, MOMIN M, NWAOKOCHA CN, SHARIFPUR M and MEYER JP; Influence of nanoparticles size, per cent mass ratio, and temperature on the thermal properties of water-based MgO–ZnO nanofluid: an experimental approach, Journal of Thermal Analysis and Calorimetry, Vol. 143, No. 2, pp.1063-1079, 2021.

384. EJIKE EWIM DR., MEHRABI M and MEYER JP; Modeling of heat transfer coefficients during condensation at low mass fluxes inside horizontal and inclined smooth tubes. Heat Transfer Engineering, Vol. 42, No. 8, pp.683-694, 2021.

385. SUNDEN B, MEYER J, DIRKER J, JOHN B and MUKKAMALA Y; Local measurements in heat exchangers: a systematic review and regression analysis, Heat Transfer Engineering, https://doi.org/10.1080/01457632.2021.1989836, 1 – 37, 2021.

386. VAN DEN BERGH WJ, DIRKER J, MARKIDES CN and MEYER JP; Influence of non-steady transient heat flux on flow boiling heat transfer and pressure drop in horizontal pipes. International Journal of Heat and Mass Transfer, Vol. 182, paper number 121927, 2022.

387. RUNGASAMY AE, CRAIG KJ and MEYER JP; Comparitive performance evaluation of candidate receivers for an entundue-conserving compact linear Fresnel mirror field, Solar Energy, Vol. 231, pp. 646 – 663, 2022.

Conference papers in refereed proceedings

1. MEYER JP and EILERS W; Stepper Motor Dynamics for Linear Motion Control, Symposium on Simulation, Third SAROB/ONSA, CSIR, Pretoria, South Africa, pp. XXXI, 10 and 11 March 1986.

2. MATHEWS EH and MEYER JP; Computation of wind loads on a semicircular greenhouse, Proceedings of the Seventh International Conference on Wind Engineering, Aachen, West Germany, pp. 81-89, 6 - 10 July 1987.

3. NAUDÉ AF, MEYER JP and MATHEWS EH; An optimized mortar fin configuration, First South African Weapon Systems Symposium, SA Army College, Hartbees Club, Pretoria, South Africa, 31 August - 4 September 1987.

4. CROSBY CP, MEYER JP and MATHEWS EH; Numerical Prediction of Wind Induced Pressure Distributions on Film Clad Greenhouses, Proceedings of the Thirteenth South African Symposium on Numerical Mathematics, Uhmlanga Rocks, Durban, South Africa, pp. 39-53, 13-15 July 1987.

5. MEYER, JP and MATHEWS EH; Soundless mortar with minimum friction drag, First South African Weapon Systems Symposium, SA Army College, Hartbees Club, Pretoria, South Africa, 31 August - 4 September 1987.

6. CROSBY CP, VISSER JA, MATHEWS EH and MEYER JP; The use of numerical computations in the prediction of wind loads on buildings, Symposium on CFD, CSIR, Pretoria, South Africa, October 1988.

7. VAN ZYL GP, MEYER JP and MATHEWS EH; An effective numerical solver for irrotational flow problems, Symposium on CFD, Proceedings S482, CSIR, Pretoria, South Africa, pp. 2.2-2.3, October 1988.

8. MEYER JP, MATHEWS EH and VAN ZYL GP; Numerical prediction of profiles corresponding to prescribed pressure distributions, Symposium on CFD, Proceedings S482, CSIR, Pretoria, South Africa, October 1988.

9. MEYER JP, LE GRANGE LA and GREYVENSTEIN GP; The Heat Flow from Rock Surfaces into a Stope Working Area, National Symposium on Heat Transfer and Thermal Technology, University of Pretoria, Pretoria, South Africa, 15 January 1991.

10. MEYER JP and GREYVENSTEIN GP; The use of heat pumps in South Africa for the heating of water for hospitals, laundries and large residential units, National Symposium on Heat Transfer and Thermal Technology, University of Pretoria, Pretoria, South Africa, 15 January 1991.

11. MEYER JP and LE GRANGE LA; Air-scoops for the improvement of ventilation in a coal mine heading, Proceedings of the 1st International Conference on Deposit Exploitation in Natural Hazard Conditions, Krakow, Poland, pp. 111 - 129, March 1991.

12. MEYER JP and GREYVENSTEIN GP; Numerical analysis of the economic viability of heat pumps against solar heating systems for the heating of swimming pools, Seventh International Conference on Numerical Methods in Thermal Problems, Stanford, USA, pp. 1389-1398, 8-12 July 1991.

13. MEYER JP, LE GRANGE LA and GREYVENSTEIN GP; Temperature distribution in a mine shaft in the case of an underground fire, National Symposium on Heat Transfer and Thermal Technology, University of Pretoria, Pretoria, 15 January 1991.

14. MEYER JP and GREYVENSTEIN GP; Economic modelling of price changes on the viability of heat pumps for the heating of domestic water, Proceedings of the International Symposium on Economic Modelling, London, England, pp. 483-488, 9-11 July 1991.

15. GREYVENSTEIN GP and MEYER JP; The heating of swimming pools in South Africa: A techno-economic comparison between solar heating and heat pumps, National Symposium on Heat Transfer and Thermal Technology, University of Pretoria, Pretoria, South Africa, 15 January 1991.

16. VAN STADEN MP and MEYER JP; The numerical optimization of the nose radius of an NACA64-006 airfoil, Proceedings of the Second National CFD Conference, Vereeniging, South Africa, pp. 181-190, 24-26 June 1991.

17. GREYVENSTEIN GP and MEYER JP; The economic modelling of the viability of different methods of grain drying, Proceedings of the International Symposium on Economic Modelling, London, England, 9-11 July 1991.

18. MEYER JP, LE GRANGE LA and MEYER C; A CFD analysis of the flow around air-scoops in a coal mine heading, Proceedings of the Second National CFD Conference, Vereeniging, South Africa, pp. 171-180, 24-26 June 1991.

19. GREYVENSTEIN GP and MEYER JP; The use of a segregated CFD procedure to analyse the flow and temperature distribution in large complex pipe networks, ICHMT International Numerical Heat Transfer Conference, Guildford, England, pp. 110-124, 22-26 July 1991.

20. GREYVENSTEIN GP, LE GRANGE LA and MEYER JP; The flow field in the vent duct and main shaft junction of a mine shaft, Proceedings of the Second National CFD Conference, Vereeniging, South Africa, pp. 146-156, 24-26 June 1991.

21. MEYER JP and GREYVENSTEIN GP; Energy saving by means of heat pumps for the heating of domestic water, International Symposium on Energy and the Environment, Espoo, Finland, pp. 483-489, 25-28 August 1991.

22. MEYER CF and MEYER JP; The effect of last through road air velocities on the depth of air penetration into board and pillar headings and an assessment of methods for improving air penetration, 24th International Conference of Safety in Mines Research Institute, Moscow, Russia, 23-28 September 1991.

23. GREYVENSTEIN GP, LE GRANGE LA and MEYER JP; The optimization of ventilation ducting in an up cast mine shaft tee junction with computational fluid dynamics, Proceedings of the Fifth International Mine Ventilation Congress, Johannesburg, South Africa, pp. 359-362, 25 - 30 October 1992.

24. MEYER JP; The utilization of air scoops for the control of ventilation in a coal mine heading; measurements and CFD predictions, Fifth Mine Ventilation Symposium, University of West Virginia, USA, 22 - 26 June 1992.

25. MEYER JP; Air knife Technology in Industry, AGRELEK CENTRE, Cedara College, Natal, South Africa, pp. 1-12, 29 March 1993.

26. VAN STADEN MP and MEYER JP; Large industrial application of CFD to model the air flow through a 620 MW power station boiler, Proceedings of the Third National CFD Conference, Stellenbosch, South Africa, pp. 275-285, 30 June - 2 July 1993.

27. MEYER JP and GREYVENSTEIN GP; A Pressure-based numerical method for the calculation of viscous transonic flows, Proceedings of the Third National CFD Conference, Stellenbosch, South Africa, pp. 163-181, 30 June - 2 July 1993.

28. MEYER JP; Mine ventilation and CFD in South Africa, Sixth Mine Ventilation Symposium, Las Vegas, USA, 28 June - 2 July 1993.

29. MEYER JP; The savings potential of domestic heat pump hot-water reticulation systems for developing communities, Sixth Intersociety Energy Conservation Symposium, Manila, Philippines, 3 - 5 November 1995.

30. VORSTER PPJ and MEYER JP; Wet compression versus dry compression in heat pumps working with pure refrigerants, Proceedings of the International Air Conditioning and Refrigeration Conference, Hobart, Tasmania, Australia, pp. 1-7, 24 to 26 March 1997.

31. OERDER SA and MEYER JP; The effectiveness of a ground-coupled heating and cooling system, Proceedings of CLIMA 97, Brussels, Belgium, Paper no. 372, (20 pages), 30 August - 2 September, 1997,

32. SMIT FJ and MEYER JP; Potential of non-azeotropic refrigerant mixture as working refrigerant in hot-water heat pumps, Proceedings of CLIMA 97, Brussels, Belgium, Paper no. 369, (20 pages), 30 August - 2 September, 1997.

33. SMIT FJ and MEYER JP; An analytical comparison between the performance of a hot-water heat pump with a non-azeotropic refrigerant mixture and a pure refrigerant, Proceedings of the American Society of Mechanical Engineers and ASIA '97 Congress, Singapore, paper no: 97-AA-42, (8 pages), 30 September - 2 October 1997.

34. LIEBENBERG L and MEYER JP; The viability of capacity control of high temperature heat pump water heaters operating with non-azeotropic refrigerant mixtures, Proceedings of the American Society of Mechanical Engineers and ASIA '97 Congress, Singapore, paper no: 97-AA-28 (10 pages), 30 September - 2 October 1997.

35. OERDER SA and MEYER JP; A municipality water reticulation ground-coupled reversible heat pump system as

an alternative to an air source system, Proceedings of the American Society of Mechanical Engineers and ASIA '97 Congress, Singapore, paper no: 97-AA-38, (12 pages), 30 September - 2 October 1997.

36. OERDER S and MEYER JP; Effectiveness of a municipal ground-coupled reversible heat pump system compared to an air source system, ASHRAE Transactions, San Francisco, CA, USA, Vol. 104, Part 1A, Paper no. 4149, pp. 540-549, 17-21 January 1998.

37. SMIT FJ and MEYER JP; Investigation of the potential effect of zeotropic refrigerant mixture on performance of a hot-water heat pump, ASHRAE Transactions, San Francisco, CA, USA, Vol. 104, Part 1A, Paper no. 4128, pp. 387-394, 17-21 January 1998.

38. LIEBENBERG L and MEYER JP; Potential of the zeotropic mixture R-22/R-142b in high temperature heat pump water heaters with capacity modulation, ASHRAE Transactions, San Francisco, CA, USA, Vol. 104, Part 1A, Paper no. 4134, pp. 418-429, 17-21 January 1998.

39. DE SALDANHA D and MEYER JP; Comparative measurements between snow shooting and mechanical refrigeration during the transportation of dairy products in insulated bodies, The Frigair '98 International Refrigeration and Air Conditioning Conference, Cape Town,, pp. C3.1-C3.12, 4th-6th March 1998.

40. MEYER JP; Analysis of heat load on insulated transport vehicles and bodies, The Frigair '98 International Refrigeration and Air Conditioning Conference, Cape Town, pp. C5.1-C5.13, 4th-6th March 1998.

41. MEYER JP; Domestic hot-water consumption in different types of dwellings in Johannesburg for developed and developing communities, Proceedings of the International Conference on Domestic Use of Electrical Energy, Cape Town, pp. 245-250, 6-8 April 1998.

42. MEYER JP **(keynote);** Evaluation of energy efficient and environmentally acceptable pure and zeotropic refrigerants in air-conditioning and refrigeration, Proceedings of the USA-RSA Bi-National Energy and Environmental Workshop, University of Durban-Westville, Durban, pp. 133-144, 8-12 June 1998.

43. PETIT PJ and MEYER JP; A steady state model for the prediction of compressor characteristics for small air conditioning units, Proceedings of the 59th Eurotherm conference, Nancy, France, pp. 393-399, 6 to 7 July 1998.

44. SWANEPOEL W and MEYER JP; Wet compression versus dry compression in refrigeration cycles working with pure refrigerants or non azeotropic mixtures for spatial air conditioning applications, Proceedings of the 59th Eurotherm conference, Nancy, France, pp. 409-415, 6 to 7 July 1998.

45. WOOD CW and MEYER JP; A mathematical analysis of accumulator heat exchangers to achieve liquid overfeeding effects in small air conditioning systems, Proceedings of the 59th Eurotherm conference, Nancy, France, pp. 417-423, 6 to 7 July 1998.

46. MEYER JP; Convective boiling of refrigerant 22 and 142b in horizontal tubes, Proceedings of the 11th International Heat Transfer Conference, Kyongju, Korea, pp. 285-290, 23-28 August 1998.

47. VAN STADEN MP, PRETORIUS L and MEYER JP; Simulation of heat exchange in large air cooled condensers, Proceedings of the 11th International Heat Transfer Conference, Vol. 6, Kyongju, Korea, pp. 155-160, 23-28 August 1998.

48. PRETORIUS L, MEYER JP and VAN STADEN MP; Mixed convection heat transfer in an annular enclosure, Proceedings of the 11th International Heat Transfer Conference, Kyongju, Korea, pp. 323-328, 23-28 August 1998.

49. MEYER JP **(keynote);** Evaluation of LPG as a refrigerant in air-conditioning and refrigeration, Proceedings of the Liquefied Petroleum Gas Association of South Africa, Durban, pp. 1-9, 23-24 October 1998.

50. WOOD, CW and MEYER, JP; A mathematical analysis of accumulator heat exchangers to achieve liquid overfeeding effects in small air conditioning systems, Proceedings of the ASME Advanced Energy Systems

Division - 1998, AES-Vol. 38, (Edited by: H Metghalchi, E Kweller, M.L. Ramalingam & JN Chapman), 1998 ASME International Mechanical Engineering Congress & Exposition, Anaheim, USA, pp. 409-313, 15-20 November 1998.

51. MEYER JP **(keynote);** Evaluation of energy efficient and environmentally acceptable pure and zeotropic refrigerants in air conditioning and refrigeration, Technical Meeting of the South African Institute of Refrigeration and Air Conditioning (SAIRAC), 14 pages, 18 February 1999.

52. MEYER JP; New energy efficient and environmentally safe refrigerants in domestic refrigerators and freezers, Proceedings of the Sixth International Conference on the domestic use of electrical energy, Cape Technikon, Cape Town, pp. 124-127, 30 March – 1 April 1999.

53. WOOD CW and MEYER JP; Increasing the energy efficiency of domestic air conditioners, refrigerators and freezers, Proceedings of the Sixth International Conference on the domestic use of electrical energy, Cape Technikon, Cape Town, pp. 141-145, 30 March – 1 April 1999.

54. MEYER JP; Domestic hot water consumption of the developed and developing communities in South Africa, ASHRAE Transactions, Seattle, Vol. 105, Part 2, Paper no. 4289, pp. 173 – 178, 1999.

55. COETZEE S, DA VEIGA WR and MEYER JP; Condensation of R22 during heat transfer augmentation with spiralled wires in the annulus of a tube-in-tube heat exchanger for hot-water heat pumps, Proceedings of the International Conference on Compact Heat Exchangers and Enhancement Technology for the Process Industries, Banff, Canada, pp. 377-384, 18 – 23 June 1999.

56. PETIT PJ and MEYER JP; A steady-state model for the high-pressure side of unitary air-conditioners, Proceedings of the ASME Advanced Energy Systems Division, (Editors: Aceves, S.M., Garimella, S. and Peterson, R.), 1999 ASME International Mechanical Engineering Congress and Exposition, Nashville, Tennessee, AES-Vol. 39, pp. 85-94, 14 – 19 November 1999.

57. WOOD CW and MEYER JP; Experimental verification of a universal accumulator heat exchanger design, Proceedings of the ASME Advanced Energy Systems Division, (Editors: Aceves, S.M., Garimella, S. and Peterson, R.), 1999 ASME International Mechanical Engineering Congress and Exposition, Nashville, Tennessee, AES-Vol. 39, pp. 99-103, 14 – 19 November 1999.

58. BUKASA JM, KEBONTE SA and MEYER JP; Average boiling heat transfer and pressure drop coefficients of the zeotropic refrigerant mixture R22/R142b in a helically coiled water heated tube-in-tube heat exchanger, Proceedings of the International Conference on Applied Mechanics, SACAM 2000, Edited by: Adali, S, Morozov, E.V. and Verijenko, V.E., pp. 379-383, 11-13 January 2000.

59. COETZEE S, DA VEIGA WR and MEYER JP; Enhancement of R22 condensation employing spiralled wires in the annulus of a tube-in-tube heat exchanger for use in hot-water heat pumps, Proceedings of the International Conference on Applied Mechanics, SACAM 2000, Edited by: Adali, S, Morozov, E.V. and Verijenko, V.E., pp. 384 - 388, 11-13 January 2000.

60. DE SWARDT CA and MEYER JP; A performance comparison between an air-source and a ground-source reversible heat pump, Proceedings of the ASME-ZSITS International Thermal Science Seminar, Bled, Slovenia, June 11 – 14, 2000.

61. LIEBENBERG L and MEYER JP; Energy-saving potential of capacity-modulated heat pump water heaters using zeotropic mixtures, Proceedings of the International Conference on Applied Mechanics, SACAM 2000, Edited by: Adali, S, Morozov, E.V. and Verijenko, V.E., pp. 423 - 428, 11-13 January 2000.

62. KRUGER E, GOOVAERTS R and MEYER JP; The influence of return loop flow rate and position on stratification in a vertical hot-water storage tank connected to a heat pump, Proceedings of the International Conference on Applied Mechanics, SACAM 2000, Edited by: Adali, S, Morozov, E.V. and Verijenko, V.E., pp. 436 - 441, 11-13 January 2000.

63. SMITH C, COETZEE PP and MEYER JP; Treatment devices for preventing scale fouling in hot water storage tanks, Proceedings of the International Conference on Applied Mechanics, SACAM 2000, Edited by: Adali, S, Morozov, E.V. and Verijenko, V.E., pp. 635 – 640, 11-13 January 2000.

64. VAN DER VYVER S and MEYER JP; The design, optimization and experimental verification of an accumulator heat exchangers, Proceedings of the International Conference on Applied Mechanics, SACAM 2000, Edited by: Adali, S, Morozov, E.V. and Verijenko, V.E., pp. 641 - 646, 11-13 January 2000.

65. PETIT PJ and MEYER JP; A steady-state model for the high pressure side of unitary air-conditioners, Proceedings of the International Conference on Applied Mechanics, SACAM 2000, Edited by: Adali, S, Morozov, E.V. and Verijenko, V.E., pp. 442 - 447, 11-13 January 2000.

66. VORSTER PPJ and MEYER JP; A comparison of pure refrigerants with non-azeotropic binary mixtures working in heat pumps under wet compression and dry compression conditions, Proceedings of the International Conference on Applied Mechanics, SACAM 2000, Edited by: Adali, S, Morozov, E.V. and Verijenko, V.E., pp. 448 - 453, 11-13 January 2000.

67. WOOD CW and MEYER JP; The modelling and experimental verification of liquid overfeeding accumulator heat exchangers in small air conditioners, Proceedings of the International Conference on Applied Mechanics, SACAM 2000, Edited by: Adali, S, Morozov, E.V. and Verijenko, V.E., pp. 81 - 86, 11-13 January 2000.

68. PETIT PJ, and MEYER JP; A steady state model for the high-pressure side of unitary air-conditioners, Proceedings of the Symposium on Energy Engineering in the 21st Century (SEE 2000), Kowloon, Hong Kong, (Editor: Ping Cheng), Begel House, New York, Vol. 3, pp. 1076-1083, 9-13 January 2000.

69. SWANEPOEL W and MEYER JP; Evaluating wet compression in refrigeration cycles working with pure or non-azeotropic refrigerant mixtures for air-conditioners, Proceedings of the Symposium on Energy Engineering in the 21st Century (SEE 2000), Kowloon, Hong Kong, (Editor: Ping Cheng), Begel House, New York, Vol. 3, pp. 1105-1113, 9-13 January 2000.

70. DA VEIGA WR and MEYER JP; Temperature control in refrigerated transport with a snow bag, Proceedings of the Symposium on Energy Engineering in the 21st Century (SEE 2000), Kowloon, Hong Kong, (Editor: Ping Cheng), Begel House, New York, Vol. 3, pp. 1114-1121, 9-13 January 2000.

71. DE SWARDT C and MEYER JP; The performance of a municipality water reticulation ground-source reversible heat pump system compared to an air-source system, Frigair, South Africa's 10th International Air Conditioning, Refrigeration & Ventilation Congress, Gallagher Estate, Midrand, paper no: 16, 7 pages, 8 – 10 March 2000.

72. KRÜGER E, GOOVAERTS R and MEYER JP; Stratification in a vertical hot water storage tank connected to a heat pump, Frigair, South Africa's 10th International Air Conditioning, Refrigeration & Ventilation Congress, Gallagher Estate, Midrand, paper no: 18, 6 pages, 8 – 10 March 2000.

73. COETZEE S, DA VEIGA W and MEYER JP; Enhancement of R22 condensation employing spiralled wires in the annulus of a tube-in-tube heat exchanger, for use in hot-water heat pumps, Frigair, South Africa's 10th International Air Conditioning, Refrigeration & Ventilation Congress, Gallagher Estate, Midrand, paper no: 19, 7 pages, 8 – 10 March 2000.

74. MEYER JP **(keynote)**; The performance of the refrigerants R-134a, R-290, R-404A, R-407c and R-410A in air-conditioners and refrigerators, Proceedings of the ASME-ZSITS International Thermal Science Seminar, Bled, Slovenia, pp. 67 – 74, 11 – 14 June 2000.

75. MEYER JP, SMITH C and COETZEE PP; Scale prevention in a hot-water storage tank with a magnetic physical water treatment device, Proceedings of the ASME-ZSITS International Thermal Science Seminar, Bled, Slovenia, pp. 295 – 300, 11 – 14 June 2000.

76. DA VEIGA R and MEYER JP; The effect of a permanent magnet on scale formation in a tube, Proceedings of the ASME-ZSITS International Thermal Science Seminar, Bled, Slovenia, pp. 301 – 307, 11 – 14 June 2000.

77. MEYER JP; Experimental evaluation of five refrigerants as replacements for R-22, ASHRAE Transactions, Vol. 106, Pt.2, Paper nr: MN-00-6-4, pp. 583 – 588, 2000.

78. DE SWARDT C and MEYER JP; A performance comparison between an air-source and a ground-source reversible heat pump, Proceedings of the International Conference on Applied Mechanics, SACAM 2000, Durban, South Africa, Edited by Adali S, Morozov EV and Verijenko VE, pp. 397 – 402, 2000.

79. MEYER JP; Experimental evaluation of five refrigerants as replacements for R-22, Mechanical Technology, pp. 29 – 32, July 2000.

80. DIRKER J, VAN DER HOEK L and MEYER JP; Heat transfer augmentation with spiralled wires during condensation in the annulus of a coiled tube-in-tube heat pumps, Proceedings of the 3rd European Thermal Sciences Conference, Heidelberg, Germany, Vol. 2, pp. 1187 – 1192, 10 – 13 September 2000.

81. LIEBENBERG L, BERGLES AE and MEYER JP; A review of refrigerant condensation in horizontal micro-fin tubes, The 2001 International Mechanical Engineering Congress and Exposition, Orlando, Florida, 5 – 10 November 2001, AES-Vol. 40, pp. 155 – 168, 2000.

82. SMIT FJ and MEYER JP; Condensation heat transfer coefficients of the zeotropic refrigerant mixture R-22/R-142b in smooth horizontal tubes, Proceedings of the Fifth World Conference on Experimental Heat Transfer, Fluid Mechanics, and Thermodynamics, Thessaloniki, Greece, Vol 1, pp. 405 – 410, 24 – 28 September, 2001.

83. COETZEE H, LIEBENBERG L and MEYER JP; Heat transfer and pressure drop characteristics of angled spiralling tape inserts in a heat exchanger annulus, 2001 ASME International Mechanical Engineering Congress & Exposition, New York, 11 – 16 November 2001.

84. VAN DER HOEK L, LIEBENBERG L and MEYER JP; Validation of in-tube condensation performance, Proceedings of the First International Conference on Heat Transfer, Fluid Mechanics and Thermodynamics, Skukuza, South Africa, Vol. 1, Part 1, pp. 236 – 241, 8 – 10 April 2002.

85. COETZEE H, LIEBENBERG L, OERDER SA, VAN DER VYVER H and MEYER JP; Heat transfer and pressure drop characteristics of angled spiralling tape inserts in a heat exchanger annulus, Proceedings of the First International Conference on Heat Transfer, Fluid Mechanics and Thermodynamics (HEFAT2002), Skukuza, South Africa, Vol. 1, Part 1, pp. 476 – 481, 8 – 10 April 2002.

86. DA VEIGA R and MEYER JP; Development of a volumetric flow rate set-up used for the evaluation of a permanent magnet and the effect it has on scale formation in tubes, Proceedings of the First International Conference on Heat Transfer, Fluid Mechanics and Thermodynamics (HEFAT2002), Skukuza, South Africa, Vol. 1, Part 2, pp. 732 – 737, 8 – 10 April 2002.

87. DENYS N and MEYER JP; The economic viability of a microturbine cogeneration system, Proceedings of the First International Conference on Heat Transfer, Fluid Mechanics and Thermodynamics (HEFAT2002), Skukuza, South Africa, Vol. 1, Part 2, pp. 793 – 798, 8 – 10 April 2002.

88. DA VEIGA WR and MEYER JP; Temperature control in refrigerated transport with a snow bag, Proceedings of the First International Conference on Heat Transfer, Fluid Mechanics and Thermodynamics (HEFAT2002), Skukuza, South Africa, Vol. 1, Part 2, pp. 799 – 801, 8 – 10 April 2002.

89. DIRKER J and MEYER JP; Heat transfer coefficients in concentric annuli, Proceedings of the First International Conference on Heat Transfer, Fluid Mechanics and Thermodynamics (HEFAT2002), Skukuza, South Africa, Vol. 1, Part 2, pp. 1093 – 1098, 8 – 10 April 2002.

90. LIEBENBERG L, BUKASA JP, HOLM K, MEYER JP and BERGLES AE; Unified approach to modelling of in-tube condensation in smooth and micro-fin tubes, Compact Heat Exchanger Symposium, A Festschrift on the 60th Birthday of Ramesh K Shah, Grenoble, France, 24 August 2002.

91. DIRKER J and MEYER JP; Heat transfer in concentric annuli, Proceedings of the Twelfth International Heat Transfer Conference, Grenoble, France, Vol. 2, pp. 147 – 152, 2002, 18 – 23 August 2002.

92. DENYS N and MEYER JP; Heating water for large residential units in South Africa with microturbine cogeneration systems, Proceedings of the ICAMM2003 Applied Mechanics and Materials Conference, Durban, pp. 98 – 107, 21 – 23 January 2003.

93. DIRKER J and MEYER JP; Convective heat transfer in concentric annuli, Proceedings of the ICAMM2003 Applied Mechanics and Materials Conference, Durban, pp. 108 – 114, 21 – 23 January 2003.

94. COBLENTZ LC and MEYER JP; Uncertainty in heat exchangers, Proceedings of the ICAMM2003 Applied Mechanics and Materials Conference, Durban, pp. 181 – 189, 21 – 23 January 2003.

95. DA VEIGA WR and MEYER JP; Heat transfer from a snow bag used in refrigerated transport, Proceedings of the ICAMM2003 Applied Mechanics and Materials Conference, Durban, pp. 92 – 97, 21 – 23 January 2003.

96. ZIMPAROV VD, PENCHEV PJ and MEYER JP; Performance evaluation of tube-in-tube heat exchangers with heat transfer enhancement in the annulus, Proceedings of the 2nd International Conference on Heat Transfer, Fluid Mechanics and Thermodynamics, (HEFAT2003), Livingstone, Zambia, paper nr ZV1, 23 – 25 June 2003.

97. BUKASA JPM, LIEBENBERG L and MEYER JP; Influence of spiral angle on heat transfer during condensation inside spiralled micro-fin tubes, Proceedings of the 2nd International Conference on Heat Transfer, Fluid Mechanics and Thermodynamics, (HEFAT2003), Livingstone, Zambia, paper nr BJ1, 23 – 25 June 2003.

98. MALULEKE AM and MEYER JP; Thermal energy storage optimisation for air conditioning plants, Proceedings of the 2nd International Conference on Heat Transfer, Fluid Mechanics and Thermodynamics, (HEFAT2003), Livingstone, Zambia, paper nr MA1, 23 – 25 June 2003.

99. LIEBENBERG L and MEYER JP; Use of pressure fluctuations for flow pattern identification during condensation in smooth- and micro-fin tubes, Proceedings of the 2nd International Conference on Heat Transfer, Fluid Mechanics and Thermodynamics, (HEFAT2003), Livingstone, Zambia, paper nr LL2, 23 – 25 June 2003.

100. LAMBRECHTS A, LIEBENBERG L and MEYER JP; Heat transfer coefficients in a horizontal herringbone tube during in-tube condensation, Proceedings of the 2nd International Conference on Heat Transfer, Fluid Mechanics and Thermodynamics, (HEFAT2003), Livingstone, Zambia, paper nr LA2, 23 – 25 June 2003.

101. LOUW WI and MEYER JP; Annular tube contact in a helically coiled tube-in-tube heat exchanger, Proceedings of the 2nd International Conference on Heat Transfer, Fluid Mechanics and Thermodynamics, (HEFAT2003), Livingstone, Zambia, paper nr LW2, 23 – 25 June 2003.

102. DA VEIGA WR and MEYER JP; Semicircular heat exchanger used in a water heated condenser pump, Proceedings of the 2nd International Conference on Heat Transfer, Fluid Mechanics and Thermodynamics, (HEFAT2003), Livingstone, Zambia, paper nr DW1, 23 – 25 June 2003.

103. DA VEIGA R and MEYER JP; Development of a weighing technique experimental set-up for the evaluation of physical water treatment devices for the prevention of calcium carbonate scale, , Proceedings of the 2nd International Conference on Heat Transfer, Fluid Mechanics and Thermodynamics, (HEFAT2003), Livingstone, Zambia, paper nr DR1, 23 – 25 June 2003.

104. DIRKER J and MEYER JP; Optimum rectangular embedded cooling structure shapes in heat generation mediums: a two-dimensional approach, , Proceedings of the 2nd International Conference on Heat Transfer, Fluid Mechanics and Thermodynamics, (HEFAT2003), Livingstone, Zambia, paper nr DJ1, 23 – 25 June 2003.

105. DA VEIGA WR and MEYER JP; Semicircular Heat Exchangers, Proceedings of the Fourth International Conference on Compact Heat Exchangers and Enhancement Technology for the Process Industries, (Editors: Shah RK, Deakin AW, Honda H and Rudy TM), Crete, Greece, pp. 235 – 239, 28 September to 3 October 2003.

106. MEYER JP and LIEBENBERG L **(keynote)**; Flow patterns during condensation in smooth and micro-fin tubes, Proceedings of the Fourth International Conference on Compact Heat Exchangers and Enhancement Technology for the Process Industries, (Editors: Shah RK, Deakin AW, Honda H and Rudy TM), Crete, Greece, pp. 267 – 280, 28 September to 3 October 2003.

107. VAN DER VYVER H, DIRKER J and MEYER JP; Validation of a CFD model of a three-dimensional tube-in-tube heat exchanger. Proceedings of the 3rd International Conference on CFD in the minerals and process industries, CSIRO, Witt PJ and Schwarz MP (Eds.), SCIRO, pp. 235 - 240, Melbourne, Australia, 10 - 12 December 2003.

108. MALAN AG, MEYER JP and LEWIS RW; A matrix-free implicit solution algorithm for incompressible flows on hybrid unstructured grids, Proceedings of the Fourth South African Conference on Applied Mechanics, (ed. K. J. Craig), Johannesburg, paper nr. 44, 19 to 21 January 2004.

109. DIRKER J, LIU W, VAN WYK JD and MEYER JP; Evaluation of embedded heat extraction for high power density integrated electromagnetic power passives, Proceedings of the IEEE 35th Annual Power Electronics Specialists Conference, PESC04, Aachen, Germany, pp. 4888 - 4893, 20-25 June 2004.

110. DIRKER J, MALAN AG and MEYER JP; Numerical modelling and characterization of the thermal behaviour of embedded rectangular cooling inserts in modern heat generating mediums, Proceedings of the 3rd International Conference on Heat Transfer, Fluid Mechanics and Thermodynamics, (HEFAT2004), Cape Town, paper nr DJ1, 21 – 24 June 2004.

111. MALAN AG and MEYER JP; A fast Krylov-space algorithm for the modelling of non-linear heat conduction on hybrid unstructured meshes, Proceedings of the 3rd International Conference on Heat Transfer, Fluid Mechanics and Thermodynamics, (HEFAT2004), Cape Town, paper nr MA3, 21 – 24 June 2004.

112. LIEBENBERG L AND MEYER JP **(keynote)**; Condensation flow regime characterization using power spectral density distributions of pressure fluctuations, Proceedings of the 3rd International Conference on Heat Transfer, Fluid Mechanics and Thermodynamics, (HEFAT2004), Cape Town, paper nr K1, 21 – 24 June 2004.

113. MALAN AG and MEYER JP; Modelling non-linear heat conduction via an efficient matrix-free hybrid unstructured algorithm, Proceedings of the European Congress on Computational Methods in Applied Sciences and Engineering, Jyvaskyla, Finland, 24-28 July 2004.

114. OLIVIER, JA, LIEBENBERG L. and MEYER JP; Experimental Pressure Drops during Condensation Inside Smooth, Helical Micro-fin, and Herringbone Tubes using R-22, R-134a, and R-407C, Proceedings of 6th World Conference on Experimental Heat Transfer, Fluid Mechanics and Thermodynamics (ExHFT6), Matsushima, Japan, paper nr. 7-b-4, 17 – 21 April 2005.

115. MALAN AG and MEYER JP; A fast matrix-free implicit unstructured-hybrid algorithm for modelling non-linear heat conduction, Proceedings of the Third MIT Conference on Computational Fluid and Solid Mechanics, Cambridge, USA, Paper nr MIT-3A/233, 14 – 17 June, 2005.

116. JI T, LIEBENBERG L and MEYER JP; A flow regime map during condensation in smooth tubes with helical inserts, Proceedings of the 5th International Symposium on Multiphase Flow, Heat, Mass Transfer and Energy Conversion, Xi'an, China, paper nr: 067, 3 – 6 July 2005.

117. LIEBENBERG L, OLIVIER J, THOME JR and MEYER JP; Flow Pattern-based Pressure Drop Correlations for Refrigerant Condensation in Smooth and Enhanced Tubes, Proceedings of the IIR Conference: Thermophysical Properties and Transfer Processes of Refrigerants, Vicenza, Italy, 8 pages , 31 Aug – 2 Sept, 2005.

118. DIRKER J and MEYER JP; Thermal characterisation of parallel-running embedded cooling layers with negligible thermal interfacial resistance for single directional heat extraction, Proceedings of the 4thd International Conference on Heat Transfer, Fluid Mechanics and Thermodynamics, (HEFAT2005), Cairo, Egypt, paper nr DJ2, 19 – 22 September 2005.

119. MALAN AG, PATTINSON J and MEYER JP; Modelling incompressible flow on cut-cell Cartesian meshes,

Proceedings of the 4th International Conference on Heat Transfer, Fluid Mechanics and Thermodynamics, (HEFAT2005), Cairo, Egypt, paper nr MA7, 19 – 22 September 2005.

120. MALAN AG and MEYER JP; Modelling non-linear heat conduction via a fast matrix-free implicit unstructured-hybrid algorithm, Proceedings of the 4th International Conference on Heat Transfer, Fluid Mechanics and Thermodynamics, (HEFAT2005), Cairo, Egypt, paper nr MA6, 19 – 22 September 2005.

121. JI T, HOLM K, LIEBENBERG L and MEYER JP; Visualization of water flowing through glass tubes with helical wire inserts, Proceedings of the 4th International Conference on Heat Transfer, Fluid Mechanics and Thermodynamics, (HEFAT2005), Cairo, Egypt, paper nr HK16, 19 – 22 September 2005.

122. VAN DER MERWE C, MALAN AG and MEYER JP; The effective transient pore-scale modelling of the solid conduction facet of an ordered packed-bed of spheres: A one-dimensional study', Proceedings of the 5th South African Conference on Applied Mechanics, Cape Town, 16 – 18 January 2006.

123. MALAN AG and MEYER JP; Modelling non-linear heat conduction via a fast edge-based matrix-free implicit unstructured-hybrid algorithm, Proceedings of the 5th South African Conference on Applied Mechanics, Cape Town, 16 – 18 January 2006.

124. PATTINSON J, MALAN AG and MEYER JP; An edge-based methodology for modelling compressible flow and incompressible flow and on cut-cell non-collocated Cartesian Meshes, Proceedings of the 5th South African Conference on Applied Mechanics, Cape Town, 16 – 18 January 2006.

125. DE PAEPE M, CANIÉRE H, T'JOEN C, STEEMAN H-J, WILLOCKX A, CHRISTIANS M, VAN ROOYEN E, LIEBENBERG L and MEYER JP; Refrigerant flow regime detection with a capacitance void fraction sensor, Collection of Technical Papers – Proceedings of the 9th AIAA/ASME Joint Thermophysics and Heat Transfer Conference Proceedings, San Francisco, paper number AIAA 2006-3130, Vol. 2, pp. 818 - 832, 5 - 8 Jun 2006.

126. MALAN AG and MEYER JP; A Matrix-free preconditioned Newton-Krylov solution algorithm for modelling the non-linear diffusion equation, Proceedings of the 7th World Congress on Computational Mechanics, Los Angeles, 16 - 22 July 2006.

127. LIEBENBERG L and MEYER JP **(keynote);** The search for objective heat transfer and pressure drop models for flow condensation in horizontal tubes, Proceedings of the 13th International Heat Transfer Conference (IHTC-13), Sydney, Paper nr: KN-21, 13 - 18 August 2006.

128. BELLO-OCHENDE T, LIEBENBERG L, AG MALAN, BEJAN A and MEYER JP; Optimal geometry for conjugate heat transfer in a cooling channel, Proceedings of the 13th International Heat Transfer Conference (IHTC-13), Sydney, Paper nr: HTE-02, 13 - 18 August 2006.

129. DIRKER J and MEYER JP; Thermal characterization of embedded cooling layers with negligible thermal interfacal resistance for orthogonal bi-directional external heat extraction, Proceedings of the 13th International Heat Transfer Conference (IHTC-13), Sydney, Paper nr: CND-03, 13 - 18 August 2006.

130. MALAN AG and MEYER JP; A fast matrix-free unstructured-hybrid algorithm for modelling non-linear heat conduction, Proceedings of the 13th International Heat Transfer Conference (IHTC-13), Sydney, Paper nr: MTH-13, 13 - 18 August 2006.

131. JI T, LIEBENBERG L and MEYER JP; Pressure drop during condensation in smooth tubes with a helical wire insert, Proceedings of the 13th International Heat Transfer Conference (IHTC-13) , Sydney, Paper nr: MPH-48, 13 - 18 August 2006.

132. MORRIS RM, SNYMAN JA and MEYER JP; Mathematical optimization of jets in crossflow, Proceedings of the 13th International Heat Transfer Conference (IHTC-13), Sydney, Paper nr: COM-21, 13 - 18 August 2006.

133. LIEBENBERG L and MEYER JP **(keynote)**; In-tube passive heat transfer enhancement in the process industry, Proceedings of the 9th Conference on Process Integration, Modelling and Optimization for Energy Saving and

Pollution Reduction (PRES2006), Prague, Paper nr: G7.1, 27 - 31 August 2006.

134. LIEBENBERG L and MEYER JP **(keynote)**; Refrigerant condensation flow regimes in enhanced tubes and their effect on heat transfer coefficients and pressure drops, Proceedings of the 17th International Conference of Chemical and Process Engineering (CHISA2006), Prague, Paper nr: F5.1, 27 - 31 August 2006.

135. MALAN AG, VISSER CJ and MEYER JP; Modelling heat and fluid flow through packed beds - a density based vertex-centred methodology, Proceedings of the 3rd International Topical Meeting on High Temperature Reactor Technology - HTR 2006, Sandton, 1 - 4 October 2006.

136. BURGER NDL and MEYER JP; Continues improvement and quality assurance in the capstone project at the University of Pretoria, Proceedings of the National Capstone Design Course Conference, University of Colorado, Boulder, 13 - 15 June 2007.

137. Bello-Ochende T, Dirker J and Meyer JP; Three-dimensional geometric optimization of heat-generating plates cooled by forced convection, Proceedings of the Fifth International Conference on Heat Transfer, Fluid Mechanics and Thermodynamics (HEFAT2007), Sun City, South Africa, paper number BT2, 1 to 4 July 2007.

138. Christians-Lupi M, van Rooyen E, Liebenberg L and Meyer JP; Flow pattern-based heat transfer correlation for condensing R-22 in a smooth tube, Proceedings of the Fifth International Conference on Heat Transfer, Fluid Mechanics and Thermodynamics (HEFAT2007), Sun City, South Africa, paper number CM4, 1 to 4 July 2007.

139. Van Rooyen E, Christians M, Liebenberg L and Meyer JP; Optical measurement technique for predicting time-fractions in two-phase flow, Proceedings of the Fifth International Conference on Heat Transfer, Fluid Mechanics and Thermodynamics (HEFAT2007), Sun City, South Africa, paper number VE1, 1 to 4 July 2007.

140. BELLO-OCHENDE T and MEYER JP; Combined micro-channel heat sink optimization for cooled electronics, Proceedings of the ASME-JSME Thermal Engineering Summer Heat Transfer Conference, Vancouver, Canada, paper number HT2007-32049, 8 - 17 July 2007.

141. BELLO-OCHENDE T, MEYER JP and BEJAN A; Maximum heat transfer rate density from ducts with wrinkled entrances, Proceedings of the Sixth International Conference on Heat Transfer, Fluid Mechanics and Thermodynamics (HEFAT2008), Pretoria, South Africa, paper number OO2, 30 June to 2 July 2008.

142. VADASZ J, MEYER JP, and GOVENDER S,; Experimental evidence of density and mechanical properties enhancements of binary alloys, Proceedings of the Sixth International Conference on Heat Transfer, Fluid Mechanics and Thermodynamics (HEFAT2008), Pretoria, South Africa, paper number VJ1, 30 June to 2 July 2008.

143. MEYER JP, MOTSAMAI OS and SNYMAN JA; Optimal mixing of multiple reacting jets in a gas turbine combustor, Proceedings of the Sixth International Conference on Heat Transfer, Fluid Mechanics and Thermodynamics (HEFAT2008), Pretoria, South Africa, paper number MO1, 30 June to 2 July 2008.

144. VADASZ J, MEYER JP, GOVENDER S, ANDRICK M, CARTER W, EBRAHIM H, NAIDOO A, NGUBANE I and OGLE M; Experimental evidence of density and mechanical properties enhancements of binary alloys by solidification subject to vibrations, Proceedings of IMECE2008, ASME International Mechanical Engineering Congress and Exposition, Boston, paper number IMECE2008-68148, 2 – 6 November 2008.

145. SULIMAN R, LIEBENBERG L and MEYER JP; Updated low mass flux transition criterion during refrigerant condensation in smooth horizontal tubes, Proceedings of the Sixth International Conference on Heat Transfer, Fluid Mechanics and Thermodynamics (HEFAT2008), Pretoria, South Africa, paper number SR1, 30 June to 2 July 2008.

146. MEYER JP, LIEBENBERG L AND OLIVIER JA; Pressure drop inside a smooth tube with different inlet geometries in the transitional flow regime for water cooled at a constant wall temperature, Proceedings of the 7th World Conference on Experimental Heat Transfer, Fluid Mechanics and Thermodynamics (ExHFT7), Krakow, Poland, pp. 1265-1272, 28 June to 3 July 2009.

147. BELLO-OCHENDE T, MEYER JP and BEJAN A; Constructal heat transfer in the entrance region of parallel plate channels and ducts, Proceedings of the 7th World Conference on Experimental Heat Transfer, Fluid Mechanics and Thermodynamics (ExHFT7), Krakow, Poland, pp. 1399-1407, 28 June to 3 July 2009.

148. VADASZ J, MEYER JP, GOVENDER S, ANDRICK M, CARTER W, EBRAHIM H, NAIDOO A, NGUBANE I and OGLE M; Experimental evidence of density and mechanical properties enhancements of binary alloys by solidification subject to vibrations, Proceedings of the ASME Summer Heat Transfer Conference, San Francisco, paper number HT2009-88587, 19 – 23 July 2009.

149. MEYERS BC, SNEDDEN GC, MEYER JP, ROOS TH, and MAHMOOD GI; Three-dimensional particle image velocimetry in a generic can-type gas turbine combustor, Proceedings of the 19th Conference on the International Society for Air Breathing Engines, Quebec, Canada, paper number 1108, 7 to 11 September 2009.

150. OGUNRONBI OI, BELLO-OCHENDE T and MEYER JP; Maximum heat transfer rate density from a rotating multiscale array of cylinders, Proceedings of COBEM2009, 20th International Congress of Mechanical Engineering, Gramado, Brazil, 15 to 20 November 2009.

151. IGHALO FU, BELLO-OCHENDE T and MEYER, JP; Mathematical optimization: application to the design of optimal micro-channel heat sinks, The Third South Conference on Computational Modelling, 3MCSUL, FURG, Rio Grande, Brazil, 23-25 November 2009.

152. MEYER JP, LIEBENBERG L and OLIVIER JA; Heat transfer characteristics of smooth circular tubes with different inlet geometries in the transitional flow regime, Proceedings of the 14th IAHR Cooling Tower and Air-Cooled Heat Exchanger Conference, Stellenbosch, paper number OP05, 1 – 3 December 2009.

153. NEL HJ, LOMBAARD IF, LIEBENBERG L and MEYER JP; Fouling of an air-cooled heat exchanger, an alternative design approach, Proceedings of the 14th IAHR Cooling Tower and Air-Cooled Heat Exchanger Conference, Stellenbosch, paper number OP05, 1 – 3 December 2009.

154. IGHALO FU, BELLO-OCHENDE T and MEYER JP; Designed micro-channel heat sinks using mathematical optimization with variable axial length, Proceedings of the 7th International Conference on Heat Transfer, Fluid Mechanics and Thermodynamics, HEFAT2010, Antalya, Turkey, pp. 1345 - 1350, 19 – 21 July 2010.

155. ALAM MM and MEYER JP; Two-cylinder wake with and without tripwires, Proceedings of the 7th International Conference on Heat Transfer, Fluid Mechanics and Thermodynamics, HEFAT2010, Antalya, Turkey, pp. 239 - 244, 19 – 21 July 2010.

156. OLAKOYEJO OT, BELLO-OCHENDE T and MEYER JP; Optimisation of circular cooling channels with internal heat generation, Proceedings of the 7th International Conference on Heat Transfer, Fluid Mechanics and Thermodynamics, HEFAT2010, Antalya, Turkey, pp. 1395 - 1400, 19 – 21 July 2010.

157. SHANDU R, BELLO-OCHENDE T and MEYER JP; Heat transfer and fluid flow in tree-shaped structures with smaller length scales, Proceedings of the 7th International Conference on Heat Transfer, Fluid Mechanics and Thermodynamics, HEFAT2010, Antalya, Turkey, pp. 1365 - 1371, 19 – 21 July 2010.

158. OBAYOPA SO, BELLO-OCHENDE T and MEYER JP; Numerical optimisation of a single PEM fuel cell under variable operating conditions, Proceedings of the 7th International Conference on Heat Transfer, Fluid Mechanics and Thermodynamics, HEFAT2010, Antalya, Turkey, pp. 667 - 672, 19 – 21 July 2010.

159. SULIMAN R, KYEMBE M and MEYER JP; Experimental investigation and validation of heat transfer coefficients during condensation of R134a at low mass fluxes, Proceedings of the 7th International Conference on Heat Transfer, Fluid Mechanics and Thermodynamics, HEFAT2010, Antalya, Turkey, pp. 2243 - 2249, 19 – 21 July 2010.

160. DIRKER J and MEYER JP; Topology optimization for an internal heat conducting cooling scheme in a square domain, Proceedings of the 7th International Conference on Heat Transfer, Fluid Mechanics and

Thermodynamics, HEFAT2010, Antalya, Turkey, pp. 1785 - 1790, 19 – 21 July 2010.

161. OBAYOPO SO, BELLO-OCHENDE T and MEYER JP; Thermodynamic optimization of PEM fuel cell stack gas channel for optimal thermal performance, Proceedings of the 14th International Heat Transfer Conference, IHTC-14, Washington DC, Paper: IHTC14-22233, 8 – 13 August 2010.

162. BELLO-OCHENDE, MEYER JP and BEJAN A; Maximum heat transfer from multi-scale fins arranged in a row with non-uniform geometry, Proceedings of the 14th International Heat Transfer Conference, IHTC-14, Washington DC, Paper: IHTC14-22808, 8 – 13 August 2010.

163. VADASZ J, MEYER JP and GOVENDER S; Heat transfer enhancements using vibration solidification of paraffin, Proceedings of the 14th International Heat Transfer Conference, IHTC-14, Washington DC, Paper: IHTC14-23146, 8 – 13 August 2010.

164. MEYER JP, CHRISTIAANS M, LIEBENBERG L and VAN ROOYEN E; Probabilistic flow-pattern-based heat transfer for condensing intermittent flow in smooth horizontal tubes, Proceedings of the 14th International Heat Transfer Conference, IHTC-14, Washington DC, Paper: IHTC14-22336, 8 – 13 August 2010.

165. MEYER JP, LIEBENBERG L, and OLIVIER JA; Single-phase heat transfer and pressure drop of water cooled inside horizontal smooth tubes in the transitional flow regime, Proceedings of the 14th International Heat Transfer Conference, IHTC-14, Washington DC, Paper: IHTC14-22338, 8 – 13 August 2010.

166. OLAKOYEJO O, BELLO-OCHENDE T and MEYER JP; Geometric optimisation of forced convection in cooling channels with internal heat generation, Proceedings of the 14th International Heat Transfer Conference, IHTC-14, Washington DC, Paper: IHTC14-22230, 8 – 13 August 2010.

167. MEYER JP and DU PREEZ A; Heat transfer and pressure drop characteristics of water in the transitional flow regime of horizontal smooth tubes at constant wall temperature, Proceedings of the 14th International Heat Transfer Conference, IHTC-14, Washington DC, Paper: IHTC14-22340, 8 – 13 August 2010.

168. MEYER JP and OLIVIER JA **(keynote)**; Heat transfer and pressure drop characteristics of circular smooth tubes in the transitional flow regime, Proceedings of the 19th International Congress of Chemical and Process Engineering CHISA 2010 and the 7th European Congress of Chemical Engineering ECCE7, Prague, Paper: I6.1, 28 August – 1 September 2010.

169. NTULI MP, DIRKER J and MEYER JP; Heat transfer and pressure drop coefficients for turbulent flow in concentric annular ducts, Proceedings of the 19th International Congress of Chemical and Process Engineering (CHISA 2010) and the 7th European Congress of Chemical Engineering 7 (ECCE7), Prague, Paper: I6.4, 28 August – 1 September 2010.

170. LE ROUX WG, BELLO-OCHENDE T and MEYER JP; Minimization and optimum distribution of entropy generation for maximum net power output of the small-scale open and direct solar thermal Brayton cycle, First Postgraduate Renewable Energy Symposium, Lynedoch, Cape Town, 11 – 12 November 2010.

171. OBAYOPO, BELLO-OCHENDE and MEYER JP; Thermodynamic optimization of proton exchange membrane fuel cell system, First Postgraduate Renewable Energy Symposium, Lynedoch, Cape Town, 11 – 12 November 2010.

172. SMITH L, OXTOBY O, MALAN AG and MEYER JP; Efficient modelling of aerodynamic flows in the boundary layer for high performance computing, Second South African Conference on Computational Mechanics – An International Conference, AfriComp11, Cape Town, 5 – 8 January 2011.

173. DIRKER J and MEYER JP; Thermal optimization for internal embedded conductive cooling schemes using topology optimization techniques, Proceedings of the ASME/JSME 2011 8th Thermal Engineering Joint Conference, AJTEC2011, Honolulu, Hawaii, Paper AJTEC2011-44291, 13 – 17 March 2011.

174. IGHALO FU, BELLO-OCHENDE T, and MEYER JP; Geometric optimization of multiple-arrays of micropin-fins, Proceedings of the ASME/JSME 2011 8th Thermal Engineering Joint Conference, AJTEC2011, Honolulu, Hawaii, Paper AJTEC2011-44285, 13 – 17 March 2011.

175. BELLO-OCHENDE T, MEYER JP and OGUNRONBI OI; Heat transfer augmentation and suppression in optimal rotating cylinders in cross-flow, Proceedings of the ASME/JSME 2011 8th Thermal Engineering Joint Conference, AJTEC2011, Honolulu, Hawaii, Paper AJTEC2011-44254, 13 – 17 March 2011.

176. MEYER JP and OLIVIER JA **(keynote)**; Heat transfer and pressure drop characteristics of smooth tubes in the transitional flow regime, Proceedings of the International Conference on Thermal Energy and Environment, INCOTEE-2011, Kalasalingam University, TamilNadu, India, 24 – 26 March 2011.

177. ALAM MM and MEYER JP; Global feature of flow around twin cylinders, Proceedings of the 2011 International Conference on Computer and Communication Devices (ICCCD2011), Bali Island, Indonesia, Paper: V2-395, 1 – 3 April 2011.

178. MOWAT AGB, MALAN AG, VAN ZYL LH and MEYER JP; A hybrid finite-volume-rom approach to non-linear aerospace fluid-structure interaction modelling, International Forum of Aeroelasticity and Structural Dynamics (IFASD 2011), Paris, 26 – 30 June 2011.

179. LIPS S and MEYER JP; Effect of gravity forces on heat transfer and pressure drops during condensation of R134a, 92th Eurotherm Seminar on Gravitational Effects on Liquid-Vapour Phase Change, Presqu'île de Giens, Hyères, France, 17 – 21 April 2011.

180. ALAM MM, REHMAN S, MEYER JP and AL-HADRAMI LM; Wind speed and power characteristics at different heights for a wind data collection tower in Saudi Arabia, Proceedings of the World Renewable Congress, Linköping, Sweden, 8 – 13 May 2011.

181. LE ROUX WG, BELLO-OCHENDE T and MEYER JP; Optimum performance of the small-scale open and direct solar thermal Brayton cycle at various environmental conditions and constraints, Proceedings of the 6th International Green Energy Conference (IGEC-6), Eskişehir, Turkey, Paper number IGEC-VI-2011-044, 5-9 June, 2011.

182. LIPS S and MEYER JP; Experimental study of convective condensation of R134a in a inclined tube, Proceedings of the 8th International Conference on Heat Transfer, Fluid Mechanics and Thermodynamics (HEFAT2011), Pointe Aux Piments, Mauritius, pp. 38 – 43, 11 – 13 July 2011.

183. LE ROUX WG, BELLO-OCHENDE T and MEYER JP; Optimum operating conditions of the small-scale open and direct solar thermal Brayton cycle at various steady-state conditions, Proceedings of the 8th International Conference on Heat Transfer, Fluid Mechanics and Thermodynamics (HEFAT2011), Pointe Aux Piments, Mauritius, pp. 110 - 119, 11 – 13 July 2011.

184. REHMAN S, ALAM Md. M, MEYER JP and AL-HADHRAMI LM; Analysis of a multi-megawatt grid connected wind farm, Proceedings of the 8th International Conference on Heat Transfer, Fluid Mechanics and Thermodynamics (HEFAT2011), Pointe Aux Piments, Mauritius, pp. 125 – 129, 11 – 13 July 2011.

185. OBAYOPO SO, BELLO-OCHENDE T and MEYER JP; Numerical study of effect and physical parameters on a PEM fuel cell performance, Proceedings of the 8th International Conference on Heat Transfer, Fluid Mechanics and Thermodynamics (HEFAT2011), Pointe Aux Piments, Mauritius, pp. 567 – 574, 11 – 13 July 2011.

186. ALAM Md. M and MEYER JP **(keynote)**; Fluid dynamics around twin cylinders and interactions, Proceedings of the 8th International Conference on Heat Transfer, Fluid Mechanics and Thermodynamics, Pointe Aux Piments (HEFAT2011), Mauritius, pp. 635 – 649, 11 – 13 July 2011.

187. OLAKOYEJO OT, BELLO-OCHENDE T and MEYER JP; Geometric optimisation of forced convection in a vascularised material, Proceedings of the 8th International Conference on Heat Transfer, Fluid Mechanics and Thermodynamics (HEFAT2011), Pointe Aux Piments, Mauritius, pp. 38 – 43, 11 – 13 July 2011.

188. MEYER JP and HALLQUIST M; Heat transfer coefficients for laminar to turbulent flow in tubes at constant heat flux, Proceedings of the 8th International Conference on Heat Transfer, Fluid Mechanics and Thermodynamics (HEFAT2011), Pointe Aux Piments, Mauritius, pp. 675 – 680, 11 – 13 July 2011.

189. LE ROUX WG, BELLO-OCHENDE T and MEYER JP; Maximum net power output of the recuperative open and direct solar thermal Brayton cycle, Proceedings of the ASME 2011 5th International Conference on Energy Sustainability (ES2011), Washington, paper number ES2011-54189, 7 – 10 August 2011.

190. LIPS S and MEYER JP; A model for stratified flow during convective condensation in an inclined tube, The Twelfth UK National Conference, University of Leeds, Paper no: 29, 30 August – 1 September 2011.

191. SMITH L, MEYER JP, OXTOBY OF and MALAN AG; An interactive boundary layer modelling methodology for aerodynamic flows, Proceedings of the ASME 2011 International Mechanical Engineering Congress and Exposition, IMECE2011, Denver, paper number IMECE2011-62075, 11 – 17 November 2011.

192. MEYER JP, NWOSU PN and SHARIFPUR M; A critical review and algorithm-based approach for selection of nanofluid viscosity models, Proceedings of the ASME 2011 International Mechanical Engineering Congress and Exposition, IMECE2011, Denver, paper number IMECE2011-66136, 11 – 17 November 2011.

193. VADASZ J, MEYER JP, GOVENDER S and ZISKIND G; Vibration effects on heat transfer during solidification of paraffin, Proceedings of the ASME 2011 International Mechanical Engineering Congress and Exposition, IMECE2011, Denver, paper number IMECE2011-63345, 11 – 17 November 2011.

194. NAGAR RK, MEYER JP, ALAM M and SPEDDING G; Flow field around dimpled pin-fins in a staggered array, Proceedings of the ASME 2011 International Mechanical Engineering Congress and Exposition, IMECE2011, Denver, paper number IMECE2011-63485, 11 – 17 November 2011.

195. NAGAR RK, MEYER JP, ALAM M and SPEDDING G; Fluid dynamics around a dimpled pin-fin, Proceedings of the ASME 2011 International Mechanical Engineering Congress and Exposition, IMECE2011, Denver, paper number IMECE2011-63485, 11 – 17 November 2011.

196. LE ROUX WG, BELLO-OCHENDE and MEYER JP; Optimisation of the receiver and recuperator of the small-scale open and direct thermal Brayton cycle for Pretoria, Second Postgraduate Renewable Energy Symposium, Lynedoch, 17 en 18 November 2011.

197. OBAYOPO SO, BELLO-OCHENDE T and MEYER JP; Performance enhancement of a PEM fuel cell through reactant channel and gas diffusion layer optimization, Second Postgraduate Renewable Energy Symposium, Lynedoch, 17 en 18 November 2011.

198. OLAKOYEJO OT, BELLO-OCHENDE T and MEYER JP; Constructal optimisation of rectangular conjugate cooling channels for minimum thermal resistance, Proceedings of the Constructal Law Conference, Porto Alegre, Brazil, 1 – 2 December 2011.

199. ALAM MM and MEYER JP; Global aerodynamic instability of two cylinders subjected to cross-flow. The Proceedings of the IUTAM Symposium on Bluff Body Flows, pp. 71-74, IIT, Kanpur, India, 12-16 December 2011.

200. ALAM MM and MEYER JP; Reynolds number effect on flow-induced forces on two tandem cylinders. The Proceedings of the Fourth International Conference on Mechanical Engineering (ICME2011), paper no ICME2011-FL-025, Dhaka, Bangladesh, 18-20 December 2011.

201. SHARIFPUR M and MEYER JP **(invited paper)**; The effect of uncertainty of conductivity and viscosity of nanofluids on heat transfer, 1st International Conference on Nanostructures and Nanomaterials: Science and Applications, Masjedsoleyman, Iran, 7 -9 February 2012.

202. MEHRABI M, SHARIFPUR M and MEYER JP; Adaptive neuro-fuzzy modelling of the thermal conductivity of alumina-water nanofluids, Proceedings of the ASME 2012 3rd Micro/Nanoscale Heat and Mass Transfer International Conference, MNHMT2012, Atlanta, Georgia, Paper number MNHMT2012-75023, 3 – 6 March 2012.

203. REHMAN S, ALAM M, MEYER JP and AL-HADHRAMI; Long-term wind speed trends over Saudi Arabia, Proceedings of the World Congress on Water, Climate, and Energy, paper number 708, Dublin, 13 - 18 May 2012.

204. LE ROUX WG, BELLO-OCHENDE T and MEYER JP; Optimum small-scale open and direct solar thermal Brayton cycle for Pretoria, South Africa, Proceedings of the 1st Southern African Solar Energy Conference, SASEC 2012, Stellenbosch, paper number ST7, 21 – 23 May 2012.

205. PAGE L, BELLO-OCHENDE T and MEYER JP; Geometric optimization for maximum heat transfer density rate from cylinders rotating in natural convection, Proceedings of the International Symposium on Advances in Computational Heat Transfer, CHT12, Bath, paper number CHT12-NC15, 1 – 6 July 2012.

206. VAN ZYL WR, DIRKER J and MEYER JP; Single-phase convective heat transfer and pressure drop coefficients in smooth concentric annuli, Proceedings of the Ninth International Conference on Heat Transfer, Fluid Mechanics and Thermodynamics (HEFAT2012), Malta, pp. 753 - 762, 16 – 18 July 2012.

207. OLAKOYEJO OT, BELLO-OCHENDE T and MEYER JP; Flow orientation in conjugate channels with internal heat generation, Proceedings of the Ninth International Conference on Heat Transfer, Fluid Mechanics and Thermodynamics (HEFAT2012), Malta, pp. 1564 - 1573, 16 – 18 July 2012.

208. OBAYOPO SO, BELLO-OCHENDE T and MEYER JP; Impact of cooling channel geometry on thermal management and performance of a proton exchange membrane fuel cell, Proceedings of the Ninth International Conference on Heat Transfer, Fluid Mechanics and Thermodynamics (HEFAT2012), Malta, pp. 1458 - 1466, 16 – 18 July 2012.

209. BELLO-OCHENDE T and MEYER JP **(keynote)**; Designed optimum geometry for micro-channel and micro pin fins heat sinks cooling technology, Proceedings of the Ninth International Conference on Heat Transfer, Fluid Mechanics and Thermodynamics (HEFAT2012), Malta, pp. 1304 - 1318, 16 – 18 July 2012.

210. BALOYI J, BELLO-OCHENDE T and MEYER JP; Optimum geometry of solid porous spheres with heat generation, Proceedings of the Ninth International Conference on Heat Transfer, Fluid Mechanics and Thermodynamics (HEFAT2012), Malta, pp. 1290 - 1297, 16 – 18 July 2012.

211. VADASZ J, MEYER JP, GOVENDER S, and ZISKIND G; Vibration effects on heat transfer during solidification of paraffin, Proceedings of the Ninth International Conference on Heat Transfer, Fluid Mechanics and Thermodynamics (HEFAT2012), Malta, pp. 1139 - 1147, 16 – 18 July 2012.

212. OLAKOYEJO OT, BELLO-OCHENDE T and MEYER JP; Optimisation of conjugate triangular cooling channels with internal heat generation, Proceedings of the Ninth International Conference on Heat Transfer, Fluid Mechanics and Thermodynamics (HEFAT2012), Malta, pp. 1104 - 1111, 16 – 18 July 2012.

213. GARACH DV, DIRKER J and MEYER JP; Heat transfer and pressure drop in microchannels with different inlet conditions for water in the laminar and transitional flow regimes, Proceedings of the Ninth International Conference on Heat Transfer, Fluid Mechanics and Thermodynamics (HEFAT2012), Malta, pp. 763 - 770, 16 – 18 July 2012.

214. MWESIGYE A, BELLO-OCHENDE T and MEYER JP; Numerical analysis of thermal performance of an externally longitudinally finned receiver for parabolic trough solar collector, Proceedings of the Ninth International Conference on Heat Transfer, Fluid Mechanics and Thermodynamics (HEFAT2012), Malta, pp. 159 - 168, 16 – 18 July 2012.

215. LE ROUX WG, BELLO-OCHENDE T and MEYER JP; Optimum small-scale open and direct solar thermal Brayton cycle for Pretoria, South Africa, Proceedings of the ASME 2012 6th International Conference on Energy Sustainability (ES2012), San Diego, paper no: ES2012-91135, 23 – 26 July 2012.

216. OBAYOPO SO, BELLO-OCHENDE T and MEYER JP; Numerical study and optimisation of channel geometry and gas diffusion layer of a PEM fuel cell, Proceedings of the ASME 2012 6th International Conference on Energy Sustainability & 10th Fuel Cell Science, Engineering and Technology Conference ESFuelCell2012, San Diego, Paper no: ESFuelCell2012-91269, 23 – 26 July 2012.

217. OBAYOPO SO, BELLO-OCHENDE T and MEYER JP; Optimising the performance of a PEM fuel cell with transverse fin inserts in the channel flow using mathematical algorithm, Proceedings of the ASME 2012 6th International Conference on Energy Sustainability and 10th Fuel Cell Science, Engineering and Technology Conference ESFuelCell2012, San Diego, Paper no: FuelCell2012-91267, 23 – 26 July 2012.

218. MEHRABI M, REZAZADEH S, SHARIFPUR M and MEYER JP; Modelling of proton exchange membrane fuel cell (PEMFC) performance by using genetic algorithm-polynomial neural network (GA-PNN) hybrid system, Proceedings of the ASME 2012 10th Fuel Cell Science, Engineering and Technology Conference, FuelCell2012, Paper no: FuelCell2012-91392, San Diego, 23-26 July 2012.

219. GREENLAND MR, DIRKER J and MEYER JP; Conjugate three-dimensional numerical analysis of heat transfer in a minichannel with changing geometrical constraints and thermal conductivity, Proceedings of the Eight South African Conference on Computational and Applied Mechanics, SACAM2012, pp. 228 – 233, 3 – 5 September 2012.

220. SHARIFPUR M, NTUMBA T and MEYER JP; Parametric analysis of effective thermal conductivity models for nanofluids, Proceedings of the ASME 2012 International Mechanical Engineering Congress and Exposition (IMECE2012), Houston, Paper number: IMECE2012-85093, 9-15 November 2012.

221. MEYER JP, NWOSU PN, SHARIFPUR M and NTUMBA T; Parametric analysis of effective viscosity models for nanofluids, Proceedings of the ASME 2012 International Mechanical Engineering Congress and Exposition (IMECE2012), Houston, Paper number: IMECE2012-93200, 9-15 November 2012.

222. MEYER JP, GROTE K and MCKRELL T; Heat transfer characteristics of multi-walled carbon nanotubes in the transitional flow regime, Proceedings of the 3rd International Forum on Heat Transfer (IFHT2012), Nagasaki, Paper no: 9, 13-15 November 2012.

223. OLAKOYEJO OT, BELLO-OCHENDE T and MEYER JP; Constructal optimisation of conjugate Y-shaped cooling channels with internal heat generation, Proceedings of the 14th Brazilian Congress of Thermal Sciences and Engineering, Rio de Janeiro, 18 – 22 November 2012.

224. PAGE L, BELLO-OCHENDE T and MEYER JP; Geometric optimization for the maximum heat transfer density rate from cylinders rotating in natural convection, Proceedings of the 14th Brazilian Congress of Thermal Sciences and Engineering, Rio de Janeiro, 18 – 22 November 2012.

225. YEKOLADIO P, BELLO-OCHENDE T and MEYER JP; Thermodynamic analysis and performance optimisation of organic Rankine cycles for the conversion of low-to-moderate grade geothermal heat, Proceedings of the Postgraduate Symposium 2012, Centre for Renewable and Sustainable Energy Studies (CRSES), Stellenbosch, 22 – 23 November 2012.

226. NGO L, BELLO-OCHENDE T and MEYER JP; Exergetic analysis and optimisation of a parabolic dish collector for low power application, Proceedings of the Postgraduate Symposium 2012, Centre for Renewable and Sustainable Energy Studies (CRSES), Stellenbosch, 22 – 23 November 2012.

227. LE ROUX W, BELLO-OCHENDE T and MEYER JP; Solar tracking for a parabolic dish used in a solar thermal Brayton cycle, Proceedings of the Postgraduate Symposium 2012, Centre for Renewable and Sustainable Energy Studies (CRSES), Stellenbosch, 22 – 23 November 2012.

228. SHARIFPUR M and MEYER JP; Opportunities in nanofluid composites, Proceedings of the 3rd International Conference on Composites: Characterization, Fabrication and Application (CCFA-3), Tehran, 18 – 19 December 2012.

229. MATHEWS MJ and MEYER JP; Modelling of a domestic paraffin geyser for rural application, Proceedings of the 21st Conference on the Domestic Use of Energy, art no: 6524793, DUE2013, Cape Town, pp. 101-106, 2-4 April 2013.

230. MEYER JP, DIRKER J, OLIVIER JA and GARACH DV **(keynote)**; The influence of different types of inlets on heat transfer of tubes in the transitional flow regime, Proceedings of the International Conference on Advances in Mechanical Engineering, 100 years of Energy, Strength and Precision, Mechanical Engineering Department, College of Engineering, Pune, Paper nr: ICAME-2013/K3, pp. 1 – 10, 29 – 31 May 2013.

231. ROUX S, MEYER JP, MAHMOOD G and ALAM A; Heat transfer in a dimpled short pin-fin array, Proceedings of the 8th World Conference on Experimental Heat Transfer, Fluid Mechanics and Thermodynamics, Lisbon, 16 – 20 June 2013.

232. GROTE K, MEYER JP and McKRELL T; The influence of multi-walled carbon nanotubes on the pressure drop characteristics in the transitional flow regime of smooth tubes, Proceedings of the 8th World Conference on Experimental Heat Transfer, Fluid Mechanics and Thermodynamics, Lisbon, 16 – 20 June 2013.

233. NOLTE HC, BELLO-OCHENDE T and MEYER JP; Second law analysis of a parabolic trough receiver tube for small scale solar thermal application, Proceedings of the Fifth International Conference on Applied Energy (ICAE2013), Paper ID: ICAE2013-145, Pretoria, 2 – 4 July 2013.

234. MWESIGYE A, BELLO-OCHENDE T and MEYER JP; Thermodynamic performance of a parabolic trough receiver with centrally placed perforated plate inserts, Proceedings of the Fifth International Conference on Applied Energy (ICAE2013), Paper ID: ICAE2013-258, Pretoria, 1 – 4 July 2013.

235. BALOYI J, BELLO-OCHENDE T and MEYER JP; The analysis of exergy destruction of a wood fired adiabatic combustor, Proceedings of the Fifth International Conference on Applied Energy (ICAE2013), Paper ID: ICAE2013-318, Pretoria, 1 – 4 July 2013.

236. NGO LC, BELLO-OCHENDE T and MEYER JP; Numerical investigation of natural convection of cavity receiver for low power application, Proceedings of the Fifth International Conference on Applied Energy (ICAE2013), Paper ID: ICAE2013-322, Pretoria, 1 – 4 July 2013.

237. ADELAJA AO, DIRKER J and MEYER JP; Laminar flow heat transfer in thick walled pipes with convective boundary conditions, Proceedings of the Fifth International Conference on Applied Energy (ICAE2013), Paper ID: ICAE2013-408, Pretoria, 1 – 4 July 2013.

238. ADELAJA AO, DIRKER J and MEYER JP; Convective condensation heat transfer of R134a in tubes at different inclination angles, Proceedings of the Fifth International Conference on Applied Energy (ICAE2013), Paper ID: ICAE2013-509, Pretoria, 1 – 4 July 2013.

239. MEHRABI M, PASHAEE T, SHARIFPUR M and MEYER JP; Application of genetic algorithm-polynomial neural network for modelling heat transfer and fluid flow characteristics of a double-pipe helical heat exchanger, Proceedings of the ASME2013 Heat Transfer Summer Conference, HT2013, Paper number: HT2013-17194, Minneapolis, 14-19 July 2013.

240. ADELAJA A, DIRKER J and MEYER JP; Condensing heat transfer coefficients for R134a at different saturation temperatures in inclined tubes, Proceedings of the ASME2013 Heat Transfer Summer Conference, HT2013, Paper number: HT2013-17375, Minneapolis, 14-19 July 2013.

241. OLUGBENGA N, SLABBER J, and MEYER JP; Experimental evaluation of natural convection heat transfer in packed beds contained in slender cylindrical geometries, Proceedings of the 5th International Conference on Application of Porous Media, Cluj-Napoca, Romania, 25 - 28 August 2013.

242. ADIO SA, SHARIFPUR M and MEYER JP; Investigation into effective viscosity and electrical conductivity of γ-Al_2O_3-Glycerol nanofluids in Einstein concentration regime, Proceedings of the 13th UK Heat Transfer Conference, UKHT2013, Paper nr: 92, Imperial College London, 2 – 3 September 2013.

243. OLAKOYEJO OT, OBAYOPO O, MARTINS L and MEYER JP; Optimisation of multiple-arrays of cylindrical pin-fins for minimum thermal resistance, Proceedings of the 13th UK Heat Transfer Conference, UKHT2013, Paper nr: 54, Imperial College London, pp. 54.1 - 54.9, 2 – 3 September 2013.

244. OLAKOYEJO OT and MEYER JP; Constructal optimisation of square pin-fin for minimum thermal resistance, Proceedings of the Constructal Law Conference, Nanjing, China, 14-15 October 2013.

245. ADEWUMI OO, BELLO-OCHENDE T and MEYER JP; Geometric optimization of rectangular micro-channel heat sink inserted with micro pin-fins, Constructal optimisation of square pin-fin for minimum thermal resistance, Proceedings of the Constructal Law Conference, Nanjing, China, pp. 221 – 232, 14-15 October 2013.

246. NAGAR RK, MEYER JP, ALAM MM, SPEDDING GR and MAHMOOD GI; The turbulent wakes of smooth and dimpled pin-fins, Proceedings of the 21st International Symposium on Air Breathing Engines (ISABE2013), Paper number ISABE-2013-1221, Busan, Korea, 9 – 13 September 2013.

247. NAGAR RK, MEYER JP, ALAM MM, SPEDDING GR and MAHMOOD GI; Numerical investigation of surface enhancement configurations for pin-fins, Proceedings of the 21st International Symposium on Air Breathing Engines (ISABE2013), Paper number ISABE-2013-1222, Busan, Korea, 9 – 13 September 2013.

248. OLAKOYEJO OT and MEYER JP; Constructal optimisation of square pin-fins for minimum thermal resistance, Proceedings of the Constructal Law Conference, pp. 97 – 103, Nanjing University of Science and Technology, Nanjing, China, 14-15 October 2013.

249. ADEWUMI OO, BELLO-OCHENDE T and MEYER JP; Geometric optimisation of rectangular microchannel heat sink inserted with micro pin fins, Proceedings of the Constructal Law Conference, pp. 221 – 226, Nanjing University of Science and Technology, Nanjing, China, 14-15 October 2013.

250. MWESIGYE A, BELO-OCHENDE T and MEYER JP; Heat transfer enhancement in a parabolic trough receiver using wall detached tape inserts, Proceedings of the ASME 2013 International Mechanical Engineering Congress and Exposition, IMECE2013, Paper IMECE2013-62745, San Diego, 15 – 21 November 2013.

251. OLAKOYEJO OT, BELO-OCHENDE T and MEYER JP; Optimisation of conjugate elliptical cooling channels with internal heat generation, Proceedings of the ASME 2013 International Mechanical Engineering Congress and Exposition, IMECE2013, Paper IMECE2013-66155, San Diego, 15 – 21 November 2013.

252. EVERTS M, AYRES SR, MULOCK-HOUWER FA, VANDERWAGEN CP, KOTZE N and MEYER JP; The influence of surface roughness in the transitional flow regime of a parabolic through receiver tube, Proceedings of the Second Southern African Energy Conference, Paper 4, Port Elizabeth, 27-29 January 2014.

253. OKAFOR FI, DIRKER J and MEYER JP; Numerical simulation of absorber tubes with non-uniform circumferential heat flux distributions, Proceedings of the Second Southern African Energy Conference, Paper 10, Port Elizabeth, 27-29 January 2014.

254. VAN DER WESTHUIZEN JE, DIRKER J and MEYER JP, Investigation of heat transfer and temperatures profiles at inlets and undeveloped flow regions using liquid crystal thermography, Proceedings of the Second Southern African Energy Conference, Paper 16, Port Elizabeth, 27-29 January 2014.

255. ARDEKANI MM, CRAIG KJ and MEYER JP, Response surface method optimization of cavity absorber of a linear Fresnel reflector, Proceedings of the Second Southern African Energy Conference, Paper 17, Port Elizabeth, 27-29 January 2014.

256. MWESIGYE A, BELLO-OCHENDE T and MEYER JP, Determination of heat flux and temperature distribution in a parabolic trough receiver at different rim angles and concentration ratios, Proceedings of the Second Southern African Energy Conference, Paper 27, Port Elizabeth, 27-29 January 2014.

257. LE ROUX WG, MWESIGYE A, BELLO-OCHENDE T and MEYER JP, Tracker and collector for an experimental setup of a small-scale solar thermal Brayton scale, Proceedings of the Second Southern African Energy Conference, Paper 28, Port Elizabeth, 27-29 January 2014.

258. ADELAJA OA, DIRKER J, and MEYER JP, Condensation heat transfer coefficients in inclined tubes, Proceedings of the Second Southern African Energy Conference, Paper 25, Port Elizabeth, 27-29 January 2014.

259. NGO LC, BELLO-OCHENDE T and MEYER JP, Numerical investigation of natural convection heat loss suppression in a solar cavity receiver with plate fins, Proceedings of the Second Southern African Energy Conference, Paper 44, Port Elizabeth, 27-29 January 2014.

260. VAN LAAR JH, SLABBER JFM, MEYER JP, VAN DER WALT IJ, PUTS GJ and CROUSE PL; Microwave-Plasma Synthesis of Nano-sized Silicon Carbide at Atmospheric Pressure, Proceedings of the 4th International Roundtable on Thermal Plasmas, for Industrial Applications, Marrakech, Morocco, 3 – 7 March 2014.

261. OBAYOPO SO, OLAKOYEJO OT, BELLO-OCHENDE T, MARTINS L, and MEYER JP, Modelling and optimisation of the catalyst layer of a PEM fuel cell using mathematical algorithm, Proceeding of the Fuel Cells 2014 Science & Technology (A Grove Fuel Cell Event) Conference, FUCE 2014, Poster P46, Amsterdam, 3-4 April 2014.

262. NOAH OO, SLABBER JF and MEYER JP; CFD Simulation of natural convection heat transfer from heated micro-spheres and bottom plate in packed beds contained in slender cylindrical geometries, Proceedings of the 6th International Conference on Porous Media, InterPore, University of Wisconsin, 27-30 May 2014.

263. ALAM MM, REHMAN S, ALI-HADHRAMI LM and MEYER JP; Extraction of the inherent nature of wind using wavelets, Proceedings of the 10th International Conference on Heat Transfer, Fluid Mechanics and Thermodynamics (HEFAT2014), Orlando, pp. 818 – 824, 14 – 16 July 2014.

264. MARIPIA A, SHARIFPUR M and MEYER JP; Investigation into cavity flow natural convection for Al_2O_3-water nanofluids numerically, Proceedings of the 10th International Conference on Heat Transfer, Fluid Mechanics and Thermodynamics (HEFAT2014), Orlando, pp. 2392 – 2398, 14 – 16 July 2014.

265. VAN DER WESTHUIZEN JE, DIRKER J and MEYER JP; Investigation into using liquid crystal thermography for measuring heat transfer coefficients and wall temperature profiles at inlets and underdeveloped regions, Proceedings of the 10th International Conference on Heat Transfer, Fluid Mechanics and Thermodynamics (HEFAT2014), Orlando, pp. 732 – 740, 14 – 16 July 2014.

266. OLAKOYEJO OT, AJAYI AB, OBAYOPA SA, MARTINS L and MEYER JP; Numerical optimisation of forced convection in a vascularised solid with triangular channels, Proceedings of the 10th International Conference on Heat Transfer, Fluid Mechanics and Thermodynamics (HEFAT2014), Orlando, pp. 1809 – 1816, 14 – 16 July 2014.

267. OLAKOYEJO OT and MEYER JP; Numerical optimisation of square pin-fins for minimum thermal resistance with non-uniform design dimensions, Proceedings of the 10th International Conference on Heat Transfer, Fluid Mechanics and Thermodynamics (HEFAT2014), Orlando, pp. 1244 – 1251, 14 – 16 July 2014.

268. LE ROUX WG, BELLO-OCHENDE T and MEYER JP; Optimisation of an open rectangular cavity receiver and recuperator used in a small-scale solar thermal Brayton cycle with thermal losses, Proceedings of the 10th International Conference on Heat Transfer, Fluid Mechanics and Thermodynamics (HEFAT2014), Orlando, pp. 499 – 507, 14 – 16 July 2014.

269. PRETORIUS HJ, MAHMOOD GI and MEYER JP; Pressure drop along a channel with modified short pin-fins, Proceedings of the 10th International Conference on Heat Transfer, Fluid Mechanics and Thermodynamics (HEFAT2014), Orlando, pp. 1824 – 1828, 14 – 16 July 2014.

270. ADEWUMI OO, BELLO-OCHENDE T and MEYER JP; Temperature variation on the heated base of a solid substrate cooled with different types of heat sinks, Proceedings of the 10th International Conference on Heat Transfer, Fluid Mechanics and Thermodynamics (HEFAT2014), Orlando, pp. 68 – 77, 14 – 16 July 2014.

271. YOUSEFI S, SHARIFPUR M and MEYER JP; The effects of uncertainty of nanolayer properties on the heat transfer through nanofluids, Proceedings of the 10th International Conference on Heat Transfer, Fluid Mechanics and Thermodynamics (HEFAT2014), Orlando, pp. 2381 – 2391, 14 – 16 July 2014.

272. MWESIGYE A, LE ROUX WG, BELLO-OCHENDE T and MEYER JP; Thermal and thermodynamic analysis of a parabolic trough receiver at different concentration ratios and rim angles, Proceedings of the 10th International Conference on Heat Transfer, Fluid Mechanics and Thermodynamics (HEFAT2014), Orlando, pp. 907 – 915, 14 – 16 July 2014.

273. EVERTS M, EBRAHIM R, KRUGER JP, MILES E, SHARIFPUR M and MEYER JP; Turbulent flow across a rotating cylinder with surface roughness, Proceedings of the 10th International Conference on Heat Transfer, Fluid Mechanics and Thermodynamics (HEFAT2014), Orlando, pp. 1606 – 1614, 14 – 16 July 2014.

274. NEL G, DIRKER J and MEYER JP; Two-dimensional topology optimization of fluid channel distributions - pressure objective, Proceedings of the 10th International Conference on Heat Transfer, Fluid Mechanics and Thermodynamics (HEFAT2014), Orlando, pp. 1829 – 1837, 14 – 16 July 2014.

275. OLAKOYEJO OT, MARTINS L, OBAYOPO SO and MEYER JP; Geometric optimisation of conjugate pentagonal cooling channels with internal heat generation, Proceedings of the ASME 2014 4th Joint US-European Fluids Engineering Division Summer Meeting and 12th International Conference on Nanochannels, Microchannels, and Minichannels, paper FEDSM2014-22154, Chicago, 3 – 7 August 2014.

276. MEYER JP **(keynote)**; Heat transfer in tubes in the transitional flow regime, Proceedings of the 15th International Heat Transfer Conference, Kyoto, paper KN03, 10 – 15 August 2014.

277. NGO LC, BELLO-OCHENDE T and MEYER JP; Numerical modelling of combined natural convection and surface radiation heat transfer in cavity receiver with plate fins, Proceedings of the 15th International Heat Transfer Conference, Kyoto, paper IHTC15-9869, 10 – 15 August 2014.

278. BURGER FH, DIRKER J and MEYER JP; Topology optimisation for the volume-to-surface problem in a three-dimensional cubic domain using conduction tooling, Proceedings of the 15th International Heat Transfer Conference, Kyoto, paper IHTC15-9207, 10 – 15 August 2014.

279. OKAFOR IF, DIRKER J and MEYER JP; Numerical study of heat transfer characteristics for different solar flux distributions on linear Fresnel collector absorber tubes in laminar flow, Proceedings of the 15th International Heat Transfer Conference, Kyoto, paper IHTC15-9221, 10 – 15 August 2014.

280. ADELAJA AO, EWIM DRE, DIRKER J and MEYER JP; Experimental investigation on pressure drop and friction factor in tubes at different inclination angles during the condensation of R134A, Proceedings of the 15th International Heat Transfer Conference, Kyoto, paper IHTC15-9363, 10 – 15 August 2014.

281. MWESIGYE A, BELLO-OCHENDE T and MEYER JP; Heat transfer enhancement in a parabolic trough receiver using perforated conical inserts, Proceedings of the 15th International Heat Transfer Conference, Kyoto, paper IHTC15-9150, 10 – 15 August 2014.

282. ADEWUMI OO, BELLO-OCHENDE T and MEYER JP; Comparison between the thermal performance of single and two-layer microchannels inserted with micro fin pins, Proceedings of the 15th International Heat Transfer Conference, Kyoto, paper IHTC15-9149, 10 – 15 August 2014.

283. ADEWUMI OO, BELLO-OCHENDE T and MEYER JP; Geometric optimisation of multi-layered microchannel heat sink with different flow arrangements; Proceedings of the 15th International Heat Transfer Conference, Kyoto, paper IHTC15-9148, 10 – 15 August 2014.

284. ADIO SA, SHARIFPUR M and MEYER JP; Investigation into the pH and electrical conductivity enhancement of MgO – ethylene glycol nanofluids, Proceedings of the 15th International Heat Transfer Conference, Kyoto, paper IHTC15-8604, 10 – 15 August 2014.

285. ADIO SA, SHARIFPUR M and MEYER JP; Combined influence size and sonication on constant shear viscosity of MgO – ethylene glycol nanofluids, Proceedings of the 15th International Heat Transfer Conference, Kyoto, paper IHTC15-8606, 10 – 15 August 2014.

286. PRINSLOO FPA, DIRKER J and MEYER JP; Heat transfer and pressure drop characteristics in the annuli of tube-in-tube heat exchangers (horizontal lay-out), Proceedings of the 15th International Heat Transfer Conference, Kyoto, paper IHTC15-9225, 10 – 15 August 2014.

287. TSHIMANGA N, SHARIFPUR M and MEYER JP; The effect of sonication time on effective thermal conductivity of Glycerol-MgO based nanofluids, Proceedings of the 15th International Heat Transfer Conference, Kyoto, paper IHTC15-8595, 10 – 15 August 2014.

288. GARACH DV, DIRKER J and MEYER JP; Inlet flow effects in microchannels on single-phase heat transfer coefficients and friction factors, Proceedings of the 15th International Heat Transfer Conference, Kyoto, paper IHTC15-9210, 10 – 15 August 2014.

289. ROUX SM, MAHMOOD G and MEYER JP; Modified endwall fluid flow in a dimpled pin fin array for heat transfer enhancement, Proceedings of the 15th International Heat Transfer Conference, Kyoto, paper IHTC15-9230, 10 – 15 August 2014.

290. MAHDAVI M, SHARIFPUR M and MEYER JP; Comparative study on simulation of convective AL_2O_3-water and ZrO_2-water nanofluid by using Ansys-Fluent, Proceedings of the 15th International Heat Transfer Conference, Kyoto, paper IHTC15-9196, 10 – 15 August 2014.

291. ADELAJA AO, DIRKER J and MEYER JP; Experimental studies of condensation heat transfer in an inclined microfin tube, Proceedings of the 15th International Heat Transfer Conference, Kyoto, paper IHTC15-9361, 10 – 15 August 2014.

292. MEHRABI M, SHARIFPUR M and MEYER JP; Convective heat transfer characteristics of low concentrations CuO-water nanofluid in the turbulent flow regime based on artifitial intellegent models, Proceedings of the 15th International Heat Transfer Conference, Kyoto, paper IHTC15-8461, 10 – 15 August 2014.

293. EVERTS M, AYRES SR, MULOCK-HOUWER FA, VANDERWAGEN CP, KOTZE NM and MEYER JP; The influence of surface roughness on heat transfer in the transitional flow regime, Proceedings of the 15th International Heat Transfer Conference, Kyoto, paper IHTC15-8338, 10 – 15 August 2014.

294. MAHMOOD GI and ACHARYA S; Blade and vane leading edge fillet on endwall cooling in linear turbine cascades, Proceedings of the 15th International Heat Transfer Conference, Kyoto, paper IHTC15-9553, 10 – 15 August 2014.

295. STEYN M and MEYER JP ; Heat transfer coefficients for tubes in the turbulent single phase flow regime with a focus on uncertainty, Proceedings of the 15th International Heat transfer Conference, Kyoto, paper IHTC15-9250, 10-15 August 2014.

296. ROUX SM, MAHMOOD GI and MEYER JP; Flow field around dimpled short pin-fins in a staggered array, Proceedings of 29th Congress of the International Council of the Aeronautical Sciences, St. Petersburg, paper 2014-0302, 7 – 12 September 2014.

297. OLAKOYEJO OT, OBAYOPA SO, MARTINS L and MEYER JP; Numerical optimisation of rectangular pin-fins for minimum thermal resistance with non-uniform design dimensions, Proceedings of the 2014 ASME International Mechanical Engineering Congress and Exposition, Montreal, paper number IMECE2014-38841, 14 – 20 November 2014.

298. MWESIGYE A, BELLO-OCHENDE T and MEYER JP; Thermal performance of a parabolic through receiver with perforated conical inserts for heat transfer enhancement, Proceedings of the 2014 ASME International Mechanical Engineering Congress and Exposition, Montreal, paper number IMECE2014-39849, 14 – 20 November 2014.

299. NOAH OO, SLABBER J and MEYER JP; Natural convection heat transfer phenomena in packed bed systems, Proceedings of the 2014 ASME International Mechanical Engineering Congress and Exposition, Montreal, paper number IMECE2014-38694, 14 – 20 November 2014.

300. SHARIFPUR M, MAHDAVI M and MEYER JP; CFD Simulation to find porous multilayer limitation of the vacuum infusion process, Proceedings of the 4th International Conference on Composites: Characterization, Fabrication and Application (CCFA-4), Tehran, 16 – 17 December 2014.

301. SHARIFPUR M, ADIO SA and MEYER JP; Nanofluid composites: preparation and rheology behaviour for vacuum infusion process, Proceedings of the 4th International Conference on Composites: Characterization, Fabrication and Application (CCFA-4), Tehran, 16 – 17 December 2014.

302. ALAM MM, REHMAN S, AL-HADHRANI LM, RUSSEL M and MEYER JP; Quantifying the contributions of different time-scales to wind speed using wavelets, Proceedings of the International Conference on Mechanical Industrial and Energy Engineering, paper number ICMIEE-PI-140386, Khulna, Bangladesh, 25 – 26 December 2014.

303. ARDEKANI MM, CRAIG KJ and MEYER JP; A novel computational approach to the combine optical and thermal modelling of a linear Fresnel collector receiver, Proceedings of the Third Southern African Solar Energy Conference, Skukuza, Kruger National Park, pp. 272 - 277, 11 – 13 May 2015.

304. MARSBERG J, CRAIG KJ and MEYER JP; Central solar receiver CFD modelling utilising generated heliostat field heat flux maps, Proceedings of the Third Southern African Solar Energy Conference, Skukuza, Kruger National Park, pp. 531 - 536, 11 – 13 May 2015.

305. CRAIG KJ, LE ROUX WG and MEYER JP; Computational fluid dynamics analysis of parabolic dish tubular cavity receiver, Proceedings of the Third Southern African Solar Energy Conference, Skukuza, Kruger National Park, pp. 260 - 265, 11 – 13 May 2015.

306. MARAIS MD, CRAIG KJ and MEYER JP; Computational investigation of worst-case wind loads on a heliostat pod for different reflector aspect ratios, Proceedings of the Third Southern African Solar Energy Conference, Skukuza, Kruger National Park, pp. 525 - 530, 11 – 13 May 2015.

307. EWIM DRE and MEYER JP; Condensation heat transfer coefficients of enhanced tubes, Proceedings of the Third Southern African Solar Energy Conference, Skukuza, Kruger National Park, pp. 230 - 235, 11 – 13 May 2015.

308. LE ROUX WG and MEYER JP; Experimental testing of a tubular cavity receiver for a small-scale solar thermal Brayton cycle, Proceedings of the Third Southern African Solar Energy Conference, Skukuza, Kruger National Park, pp. 295 - 300, 11 – 13 May 2015.

309. EVERTS M and MEYER JP; Heat transfer characteristics of developing flow in the transitional flow regime of a solar receiver tube, Proceedings of the Third Southern African Solar Energy Conference, Skukuza, Kruger National Park, pp. 224 - 229, 11 – 13 May 2015.

310. OKAFOR IF, DIRKER J and MEYER JP; Laminar flow heat transfer for asymmetrical non-uniform heat flux distributions on horizontal circular tubes, Proceedings of the Third Southern African Solar Energy Conference, Skukuza, Kruger National Park, pp. 76 - 81, 11 – 13 May 2015.

311. MWESIGYE A, BELLO-OCHENDE T and MEYER JP; Numerical investigation of the effect of slope errors and specularity errors on the thermal performance of a solar parabolic trough collector system, Proceedings of the Third Southern African Solar Energy Conference, Skukuza, Kruger National Park, pp. 88 - 93, 11 – 13 May 2015.

312. RUNGASAMY AE, CRAIG KJ and MEYER JP; Receiver optimization for an Etendue conserving compact linear Fresnel, Proceedings of the Third Southern African Solar Energy Conference, Skukuza, Kruger National Park, pp. 266 - 271, 11 – 13 May 2015.

313. POULAIN PE, CRAIG KJ and MEYER JP; Variation of the height of centreline of a heliostat and influence on the wind loading, Proceedings of the Third Southern African Solar Energy Conference, Skukuza, Kruger National Park, pp. 543 - 548, 11 – 13 May 2015.

314. BASEER MA, MEYER JP, REHMAN S and ALAM MS; Wind resource assessment for an industrial city in Saudi Arabia, Proceedings of the 11th International Conference on Heat Transfer, Fluid Mechanics and Thermodynamics (HEFAT2015), Skukuza, pp. 332–337, 20 – 23 July 2015.

315. NDENGUMA DD, DIRKER J and MEYER JP; Heat transfer and pressure drop characteristics of a horizontal annular passage in the transitional flow regime, Proceedings of the 11th International Conference on Heat Transfer, Fluid Mechanics and Thermodynamics (HEFAT2015), Skukuza, pp. 539–544, 20 – 23 July 2015.

316. SHARIFPUR M, ADIO SA and MEYER JP; Experimental investigation on the viscosity, electrical conductivity and PH of SiO2-ethylene glycol nanofluids , Proceedings of the 11th International Conference on Heat Transfer, Fluid Mechanics and Thermodynamics (HEFAT2015), Skukuza, pp. 199–204, 20 – 23 July 2015.

317. MAHDAVI M, GHOSINEZHAD H, SHARIFPUR M and MEYER JP; Boundary condition investigation for cavity flow natural convection, Proceedings of the 11th International Conference on Heat Transfer, Fluid Mechanics and Thermodynamics (HEFAT2015), Skukuza, pp. 813–818, 20 – 23 July 2015.

318. ADELAJA AO, DIRKER J and MEYER JP; Experimental studies of heat transfer coefficient and pressure drop inclined condensing units, Proceedings of the 11th International Conference on Heat Transfer, Fluid Mechanics and Thermodynamics (HEFAT2015), Skukuza, pp. 48–53, 20 – 23 July 2015.

319. ADELAJA AO, DIRKER J and MEYER JP; Experimental investigation of frictional pressure drop in inclined tubes, Proceedings of the 11th International Conference on Heat Transfer, Fluid Mechanics and Thermodynamics (HEFAT2015), Skukuza, pp. 36-41, 20 – 23 July 2015.

320. BALOYI J, BELLO-OCHENDE T and MEYER JP; Optimum diameter of a circulating fluidised bed combustor with negative wall heat flux, Proceedings of the 11th International Conference on Heat Transfer, Fluid Mechanics and Thermodynamics (HEFAT2015), Skukuza, pp. 80–89, 20 – 23 July 2015.

321. OLAKOYEJO OT, OBAYOPO SO, AJAYI AB, MARTINS L and MEYER JP; Numerical optimisation of conjugate hexagonal cooling channels with internal heat generation using AL2O3-water nanofluid, Proceedings of the 11th International Conference on Heat Transfer, Fluid Mechanics and Thermodynamics (HEFAT2015), Skukuza, pp. 845–851, 20 – 23 July 2015.

322. MUJANAYI KATUMBA J-M, BELLO-OCHENDE T and MEYER JP; Optimal configuration and thermal performance of heated rectangular blocks under forced convection with volume constraints, Proceedings of the 11th International Conference on Heat Transfer, Fluid Mechanics and Thermodynamics (HEFAT2015), Skukuza, pp. 884–893, 20 – 23 July 2015.

323. GROBLER C, SHARIFPUR M, GHODSINEZHAD H, CAPITANI R and MEYER JP; Experimental study on cavity flow natural convection in a porous medium, saturated with an Al2O3 60% EG-40% water nanofluid, Proceedings of the 11th International Conference on Heat Transfer, Fluid Mechanics and Thermodynamics (HEFAT2015), Skukuza, pp. 828–832, 20 – 23 July 2015.

324. GARBADEEN ID, SHARIFPUR M, SLABBER J and MEYER JP; Numerical study on natural convection of MWCNT nanofluids in a enclosure based on experimental conductivity an viscosity, Proceedings of the 11th International Conference on Heat Transfer, Fluid Mechanics and Thermodynamics (HEFAT2015), Skukuza, pp. 493–498, 20 – 23 July 2015.

325. SHARIFPUR M, GHODSINEZHAD H, MEYER JP and ROLFES H; Investigation on ultrasonicaton energy density effect on characterization of zinc oxide (ZnO) nanoparticle size distribution with using Zeta-sizer, Proceedings of the 11th International Conference on Heat Transfer, Fluid Mechanics and Thermodynamics (HEFAT2015), Skukuza, pp. 211–216, 20 – 23 July 2015.

326. OLIVIER SP, MEYER JP, DE PAEPE M and DE KERPEL K; Measured void fraction and heat transfer coefficients during condensation, Proceedings of the 11th International Conference on Heat Transfer, Fluid Mechanics and Thermodynamics (HEFAT2015), Skukuza, pp. 408–416, 20 – 23 July 2015.

327. SHARIFPUR M, MEYER JP and HIKMET SA; Nanofluids; opportunities and challenges, Proceedings of the 11th International Conference on Heat Transfer, Fluid Mechanics and Thermodynamics (HEFAT2015), Skukuza, pp. 217–220, 20 – 23 July 2015.

328. EVERTS M and MEYER JP; Heat transfer of developing flow in the transitional flow regime, Proceedings of the 1st Thermal and Fluid Engineering Summer Conference, New York City, paper number TFESC-12660, pp 1-13, 9 – 12 August 2015.

329. MEYER JP, LE ROUX WG, and BELLO-OCHENDE T (**keynote**); The micro-turbine: a solar-to-electricity solution, Proceedings of the International Conference on Clean Energy for Sustainable Growth in Developing Countries, Palapye, 16 – 18 September 2015.

330. MENTZ S, MEHRABI M, SHARIFPUR M, and MEYER JP; Humidification and dehumidifaction processes: advantages and disadvantages, Proceedings of the 2015 ASME International Mechanical Engineering Congress and Exposition (IMECE2015), Houston, Paper IMECE2015-50903, 13 – 19 November 2015.

331. ADEWUMI OO, BELO-OCHENDE T, and MEYER JP; Numerical investigation into the thermal performance of two-layered microchannels with varying axial length and temperature dependent fluid properties, Proceedings of the 2015 ASME International Mechanical Engineering Congress and Exposition (IMECE2015), Houston, Paper IMECE2015-52888, 13 – 19 November 2015.

332. MWESIGYE A, HUAN Z, and MEYER JP; Thermal performance of a receiver tube for a high concentration ratio parabolic through system and potential for improved performance with SYLTHERM800-CuO nanofluid, Proceedings of the 2015 ASME International Mechanical Engineering Congress and Exposition (IMECE2015), Houston, Paper IMECE2015-50234, 13 – 19 November 2015.

333. SMITH L, MEYER JP, and SPEDDING GR; Numerical simulation of a proposed wing-body-tail configuration, Proceedings of the AIAA SciTech Conference, San Diego, paper AIAA-2016-0800, 4 – 8 January 2016.

334. KRUGER M, MEYER JP, HUYSSEN RJ, and SMITH L; Application of a low finess ratio fuselage to an airliner configuration, Proceedings of the AIAA SciTech Conference, San Diego, paper AIAA-2016-12824 – 8 January 2016.

335. EVERTS M and MEYER JP; The effect of secondary flow on developing flow in the transitional flow regime, Proceedings of the First Pacific Rim Thermal Engineering Conference (PRTEC2016), paper PRTEC-14446, Hawaii's Big Island, USA, 13 – 17 March 2016.

336. LE ROUX WG and MEYER JP; Modeling the small-scale dish-mounted solar thermal Brayton cycle, Editors: RAJPAUL V and RICHTER C; Proceedings of SOLARPACES 2015: International conference on concentrating solar power and chemical energy systems, Cape Town, 13 – 16 October 2015, AIP Conference Proceedings, Vol. 1734, Paper 060002, 31 May 2016.

337. CRAIG KJ, MARSBERG J, and MEYER JP; Combining ray tracing and CFD in the thermal analysis of a parabolic dish tubular cavity receiver, Proceedings of SOLARPACES 2015: International conference on concentrating solar power and chemical energy systems, Cape Town, 13 – 16 October 2015, AIP Conference Proceedings, Vol. 1734, Paper 030009, 31 May 2016.

338. POULAIN PE, CRAIG KJ, and MEYER JP; Influence of the gap size on the wind loading on heliostats, SOLARPACES 2015: International conference on concentrating solar power and chemical energy systems, Cape Town, 13 – 16 October 2015, AIP Conference Proceedings, Vol. 1734, Paper 020019, 31 May 2016.

339. MOGHIMI O, RUNGASAMY A, CRAIG KJ and MEYER JP; Introducing CFD in the optical simulation of linear Fresnel collectors, SOLARPACES 2015: International conference on concentrating solar power and chemical energy systems, Cape Town, 13 – 16 October 2015, AIP Conference Proceedings, Vol. 1734, Paper 020015, 31 May 2016.

340. OLUGBENGA N, SLABBER JF, and MEYER JP; Numerical simulation of natural convection heat transfer and transport in packed beds: mimicking a proposed new nuclear fuel design, Proceedings of the 2016 ASME Power and Energy Conference, paper number ICONE24-60139, Charlotte, USA, 26 – 30 June 2016.

341. NGO LC, BELLO-OCHENDE T and MEYER JP; Numerical investigation of natural convection of cavity receiver for low power application, Proceedings of the International Conference on Applied Energy, ICAE 2013, Paper ID: ICAE2013-322, 1 – 4 July 2016.

342. ABOLARIN SM and MEYER JP; Pressure drop in the transitional flow regime inside smooth tubes with twisted tape inserts, Proceedings of the 12th International Conference on Heat Transfer, Fluid Mechanics and Thermodynamics (HEFAT 2016), Malaga, Spain, pp. 505-510, 11-13 July 2016.

343. ABOLARIN SM and MEYER JP; Heat transfer in the transitional flow regime inside smooth tubes with twited tape inserts, Proceedings of the 12th International Conference on Heat Transfer, Fluid Mechanics and Thermodynamics (HEFAT 2016), Malaga, Spain, pp. 1135-1140, 11-13 July 2016.

344. AWUA JT, IBRAHIM JS, KWAGHGER A, SHARIFPUR M and MEYER JP; Investigation into thermal conductivity of palm kernel fibre nanofluids with mixture of ethylene glycol/water as base fluid, Proceedings of the 12th International Conference on Heat Transfer, Fluid Mechanics and Thermodynamics (HEFAT 2016), Malaga, Spain, pp. 1719-1725, 11-13 July 2016.

345. BALOYI J, BELLO-OCHENDE T and MEYER JP; Wall heat flux influence on the thermodynamic optimisation of irreversibilities of a circulating fluidised bed combustor, Proceedings of the 12th International Conference on Heat Transfer, Fluid Mechanics and Thermodynamics (HEFAT 2016), Malaga, Spain, pp. 1354-1361, 11-13 July 2016.

346. EVERTS M and MEYER JP; Comparison of the heat transfer characteristics of developing and fully developed flow in smooth tubes in the transitional flow regime, Proceedings of the 12th International Conference on Heat Transfer, Fluid Mechanics and Thermodynamics (HEFAT 2016), Malaga, Spain, pp. 495-504, 11-13 July 2016.

347. EWIM DRE, KOMBO, R and MEYER JP. Flow pattern and experimental investigation of heat transfer coefficients during the condensation of R134A at low mass fluxes in a smooth horizontal tube, Proceedings of the 12th International Conference on Heat Transfer, Fluid Mechanics and Thermodynamics (HEFAT 2016), Malaga, Spain, pp. 264-269, 11-13 July 2016.

348. MAHDAVI M, SHARIFPUR M, and MEYER JP; Natural convection study of Brownian nano-size particles inside a water-filled cavity by LAGRANGIAN-Eulerian Tracking Approach, Proceedings of the 12th International Conference on Heat Transfer, Fluid Mechanics and Thermodynamics (HEFAT 2016), Malaga, Spain, pp. 751-754, 11-13 July 2016.

349. MWESIGYE A, HUAN Z, MEYER JP and BELLO-OCHENDE T; Thermal efficiency and entropy generation for a parabolic trough receiver at different concentration ratios, Proceedings of the 12th International Conference on Heat Transfer, Fluid Mechanics and Thermodynamics (HEFAT 2016), Malaga, Spain, pp. 65-70, 11-13 July 2016.

350. NDENGUMA DD, DIRKER, J and MEYER JP; Transitional flow regime heat transfer in a horizontal annular passage associated with mixed convection and non-uniform wall temperature boundary condition, Proceedings of the 12th International Conference on Heat Transfer, Fluid Mechanics and Thermodynamics (HEFAT 2016), Malaga, Spain, pp. 943-948, 11-13 July 2016.

351. OKAFOR IF, DIRKER J and MEYER JP; Turbulent mixed convection heat transfer for non-uniform heat flux distributions on a horizontal circular tube, Proceedings of the 12th International Conference on Heat Transfer, Fluid Mechanics and Thermodynamics (HEFAT 2016), Malaga, Spain, pp. 993-998, 11-13 July 2016.

352. REID WJ, DIRKER J and MEYER JP; Experimental investigation into the effect of circumferential non-uniform heat flux on a circular tube in the laminar flow regime, Proceedings of the 12th International Conference on Heat Transfer, Fluid Mechanics and Thermodynamics (HEFAT 2016), Malaga, Spain, pp. 1141-1146, 11-13 July 2016.

353. SHARIFPUR M, DE MARILLAC S, MEYER JP and AYBAR HS; Effect of using viscosity and thermal conductivity models on experimental cavity flow natural convection of cuo-water nanofluids, Proceedings of the 12th International Conference on Heat Transfer, Fluid Mechanics and Thermodynamics (HEFAT 2016), Malaga, Spain, pp. 1726-1730, 11-13 July 2016.

354. MWESIGYE A, HUAN Z and MEYER JP; Comparitive thermal performance of a parabolic through receiver with Cu-THERMINOL®VP-1 and Al_2O_3 THERMINOL®VP-1 nanofluids, Proceedings of the ASME 2016 International Mechanical Engineering Congress and Exposition, Paper nr: IMEC2016-65263, Arizona, 11 – 17 November 2016.

355. SHARIFPUR M, MAHDAVI M, and MEYER JP; Computational Fluids Dynamics simulation to predict vacuum infusion process, Proceedings of the 5th International Conference on Composites: Characterization, Fabrication and Application (CCFA-5), Tehran, 20-21 December 2016.

356. MEYER JP **(keynote)** and EVERTS M; Heat transfer in the transitional flow regime, Proceedings of the 9th World Conference on Experimental Heat Transfer, Fluid Mechanics and Thermodynamics, paper KN07, Iguazu Falls, Brazil, 12-15 June 2017.

357. EVERTS M and MEYER JP; Heat transfer characteristics in the laminar and transitional flow regimes for tubes with mixed convection, ExHFT, Proceedings of the 9th World Conference on Experimental Heat Transfer, Fluid Mechanics and Thermodynamics, paper OC103, Iguazu Falls, Brazil, 12-15 June 2017.

358. ABOLARIN SM and MEYER JP; Colburn j-factor in the transitional flow regime in a plain circular tube with Twisted tape insert and square-edge entry, Proceedings of the 13th International Conference on Heat Transfer, Fluid Mechanics and Thermodynamics (HEFAT2017), pp. 1010 -1015, Portorož, 17-19 July 2017.

359. ABOLARIN SM and MEYER JP; Area Goodness Factor of Flow in a Plain Circular Tube with Twisted Tape Insert and Square-Edge Entry in the Transitional Flow Regime, Proceedings of the 13th International Conference on Heat Transfer, Fluid Mechanics and Thermodynamics (HEFAT2017), pp. 1016-1021, Portorož, 17-19 July 2017.

360. SOLOMON AB, SHARIFPUR M, MEYER JP, IMRAHIM JS and IMMANUEL B; Convection Heat Transfer with Water Based Mango Bark Nanofluids, Proceedings of the 13th International Conference on Heat Transfer, Fluid Mechanics and Thermodynamics (HEFAT2017), pp. 1026-1031, Portorož, 17-19 July 2017.

361. BASHIR AI and MEYER; Heat Transfer in the Laminar and Transitional Flow Regimes of Smooth Vertical Tube for Upflow Direction, Proceedings of the 13th International Conference on Heat Transfer, Fluid Mechanics and Thermodynamics (HEFAT2017), pp. 29-34, Portorož, 17-19 July 2017.

362. EVERTS M and MEYER JP; Influence of Free Convection on the Heat Transfer Characteristics of Developing and Fully Developed Flow in the Transitional Flow Regime, Proceedings of the 13th International Conference on Heat Transfer, Fluid Mechanics and Thermodynamics (HEFAT2017), pp. 652-661, Portorož, 17-19 July 2017.

363. MAHDAVI M, SHARIFPUR M and MEYER JP; Nanofluid Pool Boiling and Deposition on a Cylinder, Proceedings of the 13th International Conference on Heat Transfer, Fluid Mechanics and Thermodynamics (HEFAT2017), pp. 1038-1043, Portorož, 17-19 July 2017.

364. NOORI RAHIM ABADI SMA, MEYER JP and DIRKER J; Numerical Investigation of Condensation Inside an Inclined Smooth Tube, Proceedings of the 13th International Conference on Heat Transfer, Fluid Mechanics and Thermodynamics (HEFAT2017), pp. 1038-1043, Portorož, 17-19 July 2017.

365. NDENGUMA DD, DIRKER J and MEYER JP; Pressure Drop in the Transitional Flow Regime of Annuli Associated with Mixed Convection, Proceedings of the 13th International Conference on Heat Transfer, Fluid Mechanics and Thermodynamics (HEFAT2017), pp. 1032-1037, Portorož, 17-19 July 2017.

366. SHARIFPUR M, SOLOMON AB, MEYER JP; IBRAHIM JS and IMMANUEL B; Thermal Conductivity and Viscosity of Mango Bark/water Nanofluids, Proceedings of the 13th International Conference on Heat Transfer, Fluid Mechanics and Thermodynamics (HEFAT2017), pp. 1022-1025, Portorož, 17-19 July 2017.

367. MWESIGYE and MEYER JP; Heat transfer performance of a parabolic trough receiver using SWCNTs-THERMINOL®VP-1 nanofluids, Proceedings of the ASME 2017 International Mechanical Engineering Congress & Exposition, Paper IMECE2017-71213, Florida, 3 – 9 November 2017.

368. JUGGURNATH D, ELAHEE MK, DAUHOO MZ, KHOODARATH A, OLAKOYEJO OT, ADELAJA AO, MEYER JP and MARKIDES CN; Numerical modelling of turbulent condensing flows in a smooth horizontal tube, Proceedings of the 10th International Conference on Boiling and Condensation Heat Transfer, Nagasaki, 12 – 15 March 2018.

369. EVERTS M and MEYER JP; Flow regime maps for fully developed flow in horizontal solar receiver tubes, Proceedings of the Fifth Southern African Solar Energy Conference (SASEC2018), Durban, 25 - 27 June 2018.

370. SIAKACHOMA C, MOGHIMI MA, SHARIFPUR M and MEYER JP; Direct normal Irradiance prediction for South Africa using clearness number contour maps, Proceedings of the Fifth Southern African Solar Energy Conference (SASEC2018), Durban, 25 - 27 June 2018.

371. SLOOTWEG M, CRAIG KJ and MEYER JP; Investigation into central receiver design for optimal optical and thermal performance, Proceedings of the Fifth Southern African Solar Energy Conference (SASEC2018), Durban, 25 - 27 June 2018.

372. CRAIG KJ, SLOOTWEG M and MEYER JP; Heat transfer enhancement in molten salt central receiver using jet impingement, Proceedings of the Fifth Southern African Solar Energy Conference (SASEC2018), Durban, 25 - 27 June 2018.

373. DELLAR K, LE ROUX WG and MEYER JP; Small-scale solar thermal Brayton cycle recuperator: Experimental testing and heat loss analysis, Proceedings of the Fifth Southern African Solar Energy Conference (SASEC2018), Durban, 25 - 27 June 2018.

374. WOLFF TM, LE ROUX WG and MEYER JP; Analysis of a parabolic dish solar collector via Lunar flux mapping, Proceedings of the Fifth Southern African Solar Energy Conference (SASEC2018), Durban, 25 - 27 June 2018.

375. EVERTS M and MEYER JP; Relationship between pressure drop and heat transfer in smooth horizontal tubes, Proceedings of the 16th International Heat Transfer Conference, Beijing, IHTC16-23022, 10 – 15 August 2018.

376. ADURALERE TT, OLAKOYEJO OT, ADEWUMI OO, ADELAJA AO, OBAYOPO SO and MEYER JP; Numerical optimisation of forced convection of wall thickness of heated plates cooled using alumina-water nanofluid, Proceedings of the 16th International Heat Transfer Conference, Beijing, IHTC16-24154, 10 – 15 August 2018.

377. MEHRABI M, NOORI RAHIM ABADI SMA and MEYER JP; Condensation heat transfer coefficient and pressure drop of R134a in a tube: Modeling and optimization, Proceedings of the 16th International Heat Transfer Conference, Beijing, IHTC16-23147, 10 – 15 August 2018.

378. GIWA SO, SHARIFPUR M and MEYER JP; Heat transfer enhancement of dilute Al_2O_3-MWCNT water based hybrid nanofluid in a square cavity, Proceedings of the 16th International Heat Transfer Conference, Beijing, IHTC16-23927, 10 – 15 August 2018.

379. BASHIR AI and MEYER JP; Experimental investigation of convective heat transfer in the transitional flow regime of an inclined smooth tube, Proceedings of the 16th International Heat Transfer Conference, Beijing, IHTC16-23461, 10 – 15 August 2018.

380. OSMAN S, SHARIFPUR M and MEYER JP; Experimental examination of transitional flow of dilute alumina - water nanofluid, Proceedings of the 16th International Heat Transfer Conference, Beijing, IHTC16-23235, 10 – 15 August 2018.

381. EVERTS M and MEYER JP; Forced convection thermal entrance length for simultaneously hydrodynamically and thermally developing laminar flow at a constant heat flux, Proceedings of the 16th International Heat Transfer Conference, Beijing, IHTC16-23020, 10 – 15 August 2018.

382. NOORI RAHIM ABADI SMA and MEYER JP; CFD simulation of steam condensation inside smooth inclined tube at different saturation temperatures, Proceedings of the 16th International Heat Transfer Conference, Beijing, IHTC16-21949, 10 – 15 August 2018.

383. CRAIG KJ, SLOOTWEG M, MEYER JP, ROBBINS SL, KOTZÉ JC, HONIBALL R, GROBLER NJM, OOSTHUIZEN E, WINTERBACH TJ and MOLL W; CFD simulation of solar receiver jet impingement heat transfer: RANS vs LES, Proceedings of the 16th International Heat Transfer Conference, Beijing, IHTC16-23262, 10 – 15 August 2018.

384. WOLFF TM, LE ROUX WG and MEYER JP**;** Heat loss analysis for an open-cavity tubular solar receiver, Proceedings of the 16th International Heat Transfer Conference, Beijing, IHTC16-24010, 10 – 15 August 2018.

385. EVERTS M and MEYER JP; Transitional flow regime nomenclature for smooth horizontal tubes heated at a constant heat flux, Proceedings of the 16th International Heat Transfer Conference, Beijing, IHTC16-23021, 10 – 15 August 2018.

386. ABOLORIN SM and MEYER JP; Heat transfer and pressure drop characteristics in the transitional flow regime of twisted tape insert in a circular tube with re-entrant inlet, Proceedings of the 16th International Heat Transfer Conference, Beijing, IHTC16-23213, 10 – 15 August 2018.

387. DELLAR KE, LE ROUX WG and MEYER JP; Experimental testing of a small-scale solar thermal Brayton cycle recuperator, Proceedings of the 16th International Heat Transfer Conference, Beijing, IHTC16-23587, 10 – 15 August 2018.

388. MEYER JP and EVERTS M; Effect of inlet tube spacing on friction factors in multiple circular tubes in the transitional flow regime, Proceedings of the 16th International Heat Transfer Conference, Beijing, IHTC16-23024, 10 – 15 August 2018.

389. EWIM DRE and MEYER JP; Experimental investigation of condensation heat transfer coefficients in an inclined smooth tube at low mass fluxes, Proceedings of the 16th International Heat Transfer Conference, Beijing, IHTC16-23113, 10 – 15 August 2018.

390. EVERTS M and MEYER JP; Heat transfer coefficients for quasi-turbulent and turbulent flow in solar receiver tubes, Solar Power and Chemical Energy Systems, SolarPaces2018, Paper K-08, Casablanca, 2 – 5 October 2018.

391. MOGHIMI MA, AHMADI G, YANG M and MEYER JP; Minimizing soiling of a PTC plant by an optimum wind barrier design, Solar Power and Chemical Energy Systems, SolarPaces2018, Paper K-18, Casablanca, 2 – 5 October 2018.

392. EVERTS M and MEYER JP; Heat transfer coefficients for quasi-turbulent and turbulent flow in solar receiver tubes, Proceedings of SOLARPACES 2018: International conference on concentrating solar power and chemical energy systems, Marocco, 2 – 5, October 2018, AIP Conference Proceedings, Vol. 2126, Paper 120006, 26 July 2019.

393. MOGHIMI MA, AHMADI G, YANG M and MEYER JP; Minimising mirror soiling of a PTC plant by an optimum wind barrier design, Proceedings of SOLARPACES 2018: International conference on concentrating solar power and chemical energy systems, Marocco, 2 – 5 October 2018, AIP Conference Proceedings, Vol. 2126, Paper 120012, 26 July 2019.

394. EVERTS M and MEYER JP; Flow regime maps for smooth flow horizontal tubes at a constant heat flux, 29th International Symposium on Transport Phenomena (ISTP29), Paper ISTP29-036, Honolulu, 30 October – 2 November 2019.

395. NOAH OO, SLABBER JF and MEYER JP; Introducing passive nuclear safety in water-cooled reactors – numerical simulation and validation of natural convection heat transfer and transport in packed beds of heated microspheres, Proceedings of the ICONE-27, 27th International Conference on Nuclear Engineering, Ibaraki, Japan, 19 – 24 May 2019.

396. SUDHAN ALS, SOLOMON AB, SHARIFPUR M and MEYER JP; Design and analysis of anodized aluminium grooved heat pipe using ammonia as working fluid, Proceedings of the 14th International Conference on Heat Transfer, Fluid Mechanics and Thermodynamics (HEFAT2019), Wicklow, pp. 382 – 387, 22 – 24 July 2019.

397. BASHIR AI, EVERTS M, BHATTACHARYYA S A and MEYER JP; Effect of inclination buoyancy on the fully developed friction factors in the laminar and transitional flow regimes of smooth tube, Proceedings of the 14th International Conference on Heat Transfer, Fluid Mechanics and Thermodynamics (HEFAT2019), Wicklow, pp. 470 – 475, 22 – 24 July 2019.

398. SHOTE AS, MAHMOOD GI and MEYER JP; Endwall adiabatic film-cooling effectiveness with upstream film cooling schemes in a filleted vane cascade, Proceedings of the 14th International Conference on Heat Transfer, Fluid Mechanics and Thermodynamics (HEFAT2019), Wicklow, pp. 510 – 523, 22 – 24 July 2019.

399. CRAIG KJ, QUICK J, SLOOTWEG M and MEYER JP; Numerical investigation of jet impingement heat transfer in solar receivers, Proceedings of the 14th International Conference on Heat Transfer, Fluid Mechanics and Thermodynamics (HEFAT2019), Wicklow, pp. 1105 – 1110, 22 – 24 July 2019.

400. AWUA JT, IBRAHIM JS, SHARIFUR M and MEYER JP; Particle characterization and stability of nanofluid prepared from palm kernel fibre with mixture of water and ethylene glycol as base fluid, Proceedings of the 14th International Conference on Heat Transfer, Fluid Mechanics and Thermodynamics (HEFAT2019), Wicklow, pp. 1209 – 1213, 22 – 24 July 2019.

401. VAN DEN BERGH WJ, DIRKER J, MARKIDES CN and MEYER JP; Preliminary investigation into the effect of step changes in boiling heat flux on R134a IN A HORIZONTAL MACRO TUBE, Proceedings of the 14th International Conference on Heat Transfer, Fluid Mechanics and Thermodynamics (HEFAT2019), Wicklow, pp. 1256 – 1264, 22 – 24 July 2019.

402. ABOLARIN SM, EVERTS M and MEYER JP; Pressure drop characteristics of transitional flow through a smooth tube with peripheral transitional flow through a smooth tube with peripheral u-cut twisted tape inserts, Proceedings of the 14th International Conference on Heat Transfer, Fluid Mechanics and Thermodynamics (HEFAT2019), Wicklow, pp. 1271 – 1276, 22 – 24 July 2019.

403. OSMAN S, SHARIFPUR M and MEYER JP; The effect of chopping the boundary layer at the inlet on the transitional heat transfer and pressure drop characteristics in smooth horizontal tube, Proceedings of the 14th International Conference on Heat Transfer, Fluid Mechanics and Thermodynamics (HEFAT2019), Wicklow, pp. 1411 – 1415, 22 – 24 July 2019.

404. MURSHED SMS, SHARIFPUR M, GIWA S and MEYER JP; Trend of experimental natural convection of nanofluids, Proceedings of the 14th International Conference on Heat Transfer, Fluid Mechanics and Thermodynamics (HEFAT2019), Wicklow, pp. 1506 – 1513, 22 – 24 July 2019.

405. BASHIR AI, EVERTS M and MEYER JP; Experimental investigation of transitional flow forced convection heat transfer through a smooth vertical tube with a square-edged inlet, 16th UK Heat Transfer Conference, Nottingham, paper 042, 8 – 10 September 2019.

406. BHATTACHARYYA S, EVERTS M, BASHIR AI and MEYER JP; Experimental and numerical investigation of the heat transfer characteristics of laminar flow in a vertical circular tube at low Reynolds numbers, 16th UK Heat Transfer Conference, Nottingham, paper 060, 8 – 10 September 2019.

407. EVERTS M, MEYER JP and BASHIR AI ; Influence of free convection effects on fully developed transitional flow, 22nd Congress of Thermal Science and Technology, Kocaeli, 11 – 14 September 2019.

408. SCHEEPERS H, DIRKER J and MEYER JP; Influence of heat flux distribution on flow boiling heat transfer in a horizontal tube, 15th International Conference on Heat Transfer, Fluid Mechanics and Thermodynamics (HEFAT2021), Online, pp. 1220 – 1227, 25 – 28 July 2021.

409. MÖLLER J, DIRKER J and MEYER JP; Optimisation of a finned cavity latent thermal energy storage enclosure, 15th International Conference on Heat Transfer, Fluid Mechanics and Thermodynamics (HEFAT2021), Online, pp. 1748 – 1753, 25 – 28 July 2021.

410. BOCK BD, MARKIDES CN, BUCCI M, THOME JR and MEYER JP; Surface influences on falling film boiling, 15th International Conference on Heat Transfer, Fluid Mechanics and Thermodynamics (HEFAT2021), Online, pp. 2085 – 2379, 25 – 28 July 2021.

411. MAHDAVI M, SHARIFPUR M and MEYER JP; Nanofluid jet flow cooling on a dynamic hot circular disk, International Conference on Heat Transfer, Fluid Mechanics and Thermodynamics (HEFAT2021), Online, pp. 2352 – 2355, 25 – 28 July 2021.

412. EVERTS M and MEYER JP; Thermal entrance lengths for simultaneously hydrodynamically and thermally forced and mixed convective flow through horizontal tubes, International Conference on Heat Transfer, Fluid Mechanics and Thermodynamics (HEFAT2021), Online, pp. 2374 – 2379, 25 – 28 July 2021.

Contributions at conferences or special lectures (no proceedings)

1. MEYER JP, LIEBENBERG L and OLIVIER JA; **(invited lecture)** Heat transfer and pressure drop inside tubes with different inlet geometries in the transitional flow regime, American Society of Heating, Refrigerating and Air-Conditioning Engineers (ASHRAE), Seminar 77 (Advanced: Recent Advances in Heat Transfer and Fluid Flow), Orlando, Florida, 23 – 27 January 2010.

2. MEYER JP, BELLO-OCHENDE T and IGHALO FU; **(invited lecture)**, Optimization of microchannels and micro-fin heat sinks with computational fluid dynamics in combination with a mathematical optimization technique, One-day International Workshop on Recent Advances in Thermal Engineering (RATE 2011), Bengal Engineering and Science University, Shibpur, Kolkata, India, 22 March 2011.

3. MATHEBULA IS and MEYER JP, Logitudinal pitch spacing on perforated tubes with flow injection as a friction reducing method, Emerging Researcher Symposium, CSIR, 13 October 2011.

4. ROUX S, MEYER JP and ALAM M; Heat transfer and flow field in a rectangular channel equipped with dimpled, short pin-fins, International Aerospace Symposium of South Africa (IASSA), Pretoria, 26 – 28 September 2011.

5. MEYER JP and GROTE K; Nanotubes as heat transfer medium in high performance aerospace heat exchangers, International Aerospace Symposium of South Africa (IASSA), Pretoria, 17 – 18 September 2012.

6. MEYER JP, LIPS S, ADELAJA AO and DIRKER J; Condensation heat transfer in aerospace, International Aerospace Symposium of South Africa (IASSA), Pretoria, 17 – 18 September 2012.

7. LE ROUX WG, MEYER JP, and BELLO-OCHENDE W; Solar thermal power generation using the Brayton cycle, German South African Research Lecture Series: 'Energy Sciences', German Academic Exchange Service (DAAD), Tshwane University of Technology, Pretoria, 10 April 2013.

8. MEYER JP; **(keynote)**, Internal forced convection heat transfer and pressure drop in the transition flow regime, The 9th International Conference on Thermal Engineering Theory and Applications, Abu Dhabi, 24 – 26 March 2016.

9. MEYER JP; **(keynote),** Constructal size of heat exchangers, Sixth International Association of Science and Technology for Development (IASTED) International Conference, Gaberone, 5 – 7 September 2016.

10. MEYER JP; **(keynote)**, The fundamental design approach of the constructal size of a heat exchanger, International Conference on Design, Mechanical and Material Engineering (D2ME2016), Hong Kong Society of Mechanical Engineers, Auckland, 8 – 10 September 2016.

11. TORR A, CRAMER L, MAHMOOD GI, and MEYER JP; Enhancement of the thermal performance of solar heat exchangers with porous inserts, NRF Renewable and Sustainability Energy Postgraduate Symposium, University of Fort Hare, 5 – 6 September 2016.

12. EVERTS M and MEYER JP; Heat transfer characteristics of developing and fully developed flow in the transitional flow regime of a parabolic through receiver tube, NRF Renewable and Sustainability Energy Postgraduate Symposium, University of Fort Hare, 5 – 6 September 2016.

13. PALLENT M, JOUBERT M, and MEYER JP; The influence of multiple tube inlet condition on heat transfer and friction factor for flow in a concentrated solar power system in the transitional flow regime, NRF Renewable and Sustainability Energy Postgraduate Symposium, University of Fort Hare, 5 – 6 September 2016.

14. MEYER JP **(keynote)**, Forced convection heat transfer in the transitional flow regime, 1st Asian Conference on Thermal Sciences (ACTS), Jeju, 26 – 30 March 2017.

15. MEYER JP **(keynote)**, Mixed and forced convection in the transitional flow regime, International Conference on Thermal and Fluid Engineering, Phuket, 3 – 5 July 2017.

16. BHATTACHARYYA S, MEYER JP, SARKAR A, DAS S, and MULLICK A; Experimental study on heat transfer enhancement characteristics of duct inserted with short length angular cut twisted tape, International Conference on Thermal and Fluid Engineering, Phuket, 3 – 5 July 2017.

17. MEYER JP, BEJAN A, LORENTE S and MARTINS L; The constructal size of heat exchangers in aerospace, Aeronautical Society of South Africa Annual Conference, Paper AESSA2017-23, CSIR Pretoria, 25 – 26 October 2017.

18. MEYER JP and EVERTS M **(keynote)**; A review of laminar and transitional heat transfer in circular tubes, 29th International Symposium on Transport Phenomena (ISTP29), Honolulu, 30 October – 2 November 2018.

19. MEYER JP and EVERTS M **(keynote)**; A new perspective of internal forced and mixed convection heat transfer, 16th UK Heat Transfer Conference, Nottingham, 8 – 10 September 2019.

20. MEYER JP and EVERTS M **(keynote);** A new perspective on forced and mixed convection heat transfer in the laminar and transitional flow regimes, 22nd Congress on Thermal Science and Technology, Kocaeli, 11 – 14 September 2019.

21. EVERTS M and MEYER JP; The influence of laminar flow conditions on the onset of flow boiling in a horizontal tube, Progress 100 Symposium and the Second ThermaSMART Annual Workshop, New Advances and Key Questions in Phase-Change Cooling, Kyushu University, 2 – 4 December 2019.

22. MEYER JP and EVERTS M **(keynote)**; Turbulent and mixed convection in tube flow, Five day International Workshop on Recent Advances in Thermal Engineering, virtiual (from Pilani, Rajasthan), 29 June to 3 July 2020.

23. MEYER JP and EVERTS M **(keynote)**; Recent trends in internal convection in renewable energy heat exchangers, International Conference on Recent Trends in Developments of Thermo-fluids and Renewable Energy, virtual from NIT Arunachal Pradesh, Yupia, 24 – 26 November 2020.

24. MEYER JP and EVERTS M **(keynote/plenary guest speaker)**; The state-of-the-art in internal convection in renewable energy heat exchangers, International Conference on Thermal Engineering and Management Advances (ICTEMA 2020), Bengal, 19 – 20 December 2020.

25. MEYER JP and EVERTS M **(keynote)**; Are out trusted turbulent flow equations accurate and/or appropriate? The Second International Symposium on Thermal-Fluid Dynamics (ISTFD), 31 July – 3 August 2021, Beijing.

Editorials, Editor of special issues and editor of published proceedings

1. MEYER JP (Editor); Proceedings of the First International Conference on Heat Transfer, Fluid Mechanics and Thermodynamics, Vol 1, Part 1, HEFAT2002, Skukuza, Kruger National Park, South Africa, ISBN: 0-86970-536-9, 8 to 10 April 2002.

2. MEYER JP (Editor); Proceedings of the Second International Conference on Heat Transfer, Fluid Mechanics and Thermodynamics, CD-Rom with 250 papers, HEFAT2003, Livingston, Zambia, ISBN: 0-620-30503-7, 23 to 25 June 2003.

3. MEYER JP and STEHLIK P, (Special issue); Selected papers from the First HEFAT Conference, Special Issue: Selected Papers Presented at the First International Conference on Heat Transfer, Fluid Mechanics, and Thermodynamics (HEFAT), Held on 8 – 10 April 2002, Kruger National Park, South Africa, Heat Transfer Engineering, Vol. 24, No. 6, pp. 1 –2, 2003.

4. MEYER JP (Editor); Proceedings of the Third International Conference on Heat Transfer, Fluid Mechanics and Thermodynamics, CD-Rom with 150 papers, HEFAT2004, Cape Town, ISBN: 1-86854-519-9, 21 to 23 June 2004.

5. MEYER JP and STEHLIK P (Special issue); Editorial: Selected papers from the Second HEFAT Conference, Heat Transfer Engineering, Vol. 26, No. 7, pp. 1 – 2, 2005.

6. MEYER JP and MALAN AG (Editors); Proceedings of the Fourth International Conference on Heat Transfer, Fluid Mechanics and Thermodynamics, CD-Rom with 420 papers, HEFAT2005, Cairo, Egypt, ISBN: 1-86854-624-1, 19 to 22 September 2005.

7. MEYER JP (Special issue); Selected papers from the Third HEFAT conference (Editorial), Heat Transfer Engineering, Vol. 27, No. 8, page 1, 2006.

8. MEYER JP and SANDENBERGH RF (Special issue); The University of Pretoria's School of Engineering, Special issue as part of 50 year celebrations of the School of Engineering, SA Journal of Science, Vol. 102, No. 11/12, page 506, 2006.

9. MEYER JP (Guest Editor, editorial); Selected papers from the HEFAT2005 conference, Experimental Heat Transfer, Vol. 20, No. 2, page 85, 2007.

10. MEYER JP (Special issue); Selected papers from the Fourth HEFAT conference (Editorial), Heat Transfer Engineering, Vol. 28, No. 7, pp. 603 - 604, 2007.

11. MEYER JP (Editor); Proceedings of the Fifth International Conference on Heat Transfer, Fluid Mechanics and Thermodynamics, CD-Rom with 200 papers, HEFAT2007, Sun City, South Africa, ISBN: 978-1-86854-6435, 1

to 4 July 2007.

12. MALAN AG and MEYER JP (Guest-Editors and editorial); International Journal for Numerical Methods in Heat and Fluid Flow, Special section: Selected papers from the 4th Annual Heat Transfer, Fluid Dynamics and Thermodynamics (HEFAT) Conference 2005, Vol. 18, No. 2, pp. 109 - 110, 2008.

13. LIEBENBERG L and MEYER JP (Editorial); Objective Classification of Two-Phase Flow Regimes, Heat Transfer Engineering, Vol. 29, No, 1, pp. 1 - 2, 2008.

14. MEYER JP (Editor); Proceedings of the Sixth International Conference on Heat Transfer, Fluid Mechanics and Thermodynamics, CD-Rom with 150 papers, HEFAT2008, Pretoria, South Africa, ISBN: 978-1-86854-691-6, 30 June to 2 July 2008.

15. MEYER JP (Guest Editor, editorial); Selected papers from the fifth HEFAT conference, Heat Transfer Engineering, Vol. 30, No. 7, pp. 1-2, 2009.

16. MEYER JP (Editor); Proceedings of the Seventh International Conference on Heat Transfer, Fluid Mechanics and Thermodynamics, CD-Rom with 450 papers, HEFAT2010, Antalya, ISBN: 978-1-86854-818-7, Turkey, 19 – 21 July 2010.

17. MEYER JP (Editorial); Selected papers from the Sixth HEFAT conference, Heat Transfer Engineering, Vol. 32, No. 2, pp. 87-89, 2011.

18. MEYER JP (Editorial); Selected papers from the Seventh HEFAT conference – heat transfer, fluid mechanics, and thermodynamics in society, Heat Transfer Engineering, Vol. 33, No. 14, pp. 1143-1147, 2012.

19. MEYER JP (Editor); Proceedings of the Eight International Conference on Heat Transfer, Fluid Mechanics and Thermodynamics, CD-Rom with 150 papers, HEFAT2011, Mauritius, ISBN: 978-1-86854-948-1, 11 – 13 July 2011.

20. MEYER JP (Editor); Proceedings of the Ninth International Conference on Heat Transfer, Fluid Mechanics and Thermodynamics, CD-Rom with 260 papers, HEFAT2012, Malta, ISBN: 978-1-86854-986-3, 16 – 18 July 2012.

21. CHENG L, CELATA GP, GHAJAR A, JACOBI AM, KARAYIANNIS TG, MEYER JP, MINKOWUCZ WJ, QUIBEN JM, PARK JE, REVELIN R, RIBATSKI G, URSENBACHER T, WOJTAN L, YANG CY and ZUN I; In Celebration of Professor John Richard Thome on his 60th birthday, International Journal of Heat and Mass Transfer, Vol 58, No. 1-2, pp. 1-2, 2013.

22. MEYER JP; Preface: International Conference on Heat Transfer, Fluid Mechanics and Thermodynamics 2012, Computational Thermal Sciences, Vol. 5, No. 2, 2013.

23. MEYER JP (Editorial); Heat transfer, fluid mechanics and thermodynamics, Heat Transfer Engineering, Vol. 34, No. 14, pp. 1141-1146, 2013.

24. MEYER JP (Editorial): Preface: International Conference on Heat Transfer, Fluid Mechanics and Thermodynamics 2012, Computational Thermal Sciences, Vol. 5, No. 2, 2013.

25. MEYER JP (Editorial): Preface: International Conference on Heat Transfer, Fluid Mechanics and Thermodynamics 2012, Computational Thermal Sciences, Vol. 5, No. 3, 2013.

26. MEYER JP (Editorial): Preface: Heat transfer fluid mechanics, and thermodynamics in our environment – HEFAT2012, Heat Transfer Engineering, Vol. 35, No. 16-17, pp. 1389 – 1393, 2014.

27. MEYER JP, SKEWS B, SAHA SK, WINTER F, DU TOIT J, STEHLIK P, MARTIN H, LIENHARD JH, BEJAN A, VADASZ P, VON BACKSTRÖM T, HARMS T and REUTER H; In memoriam Prof Detlev Gustav Kröger, Heat Transfer Engineering, Vol. 36, No. 4, pp. 429 – 431, 2015.

28. MEYER JP (Editorial): Preface: International Conference on Heat Transfer, Fluid Mechanics and Thermodynamics 2014, Computational Thermal Sciences, Vol. 7, No. 2, 2015.

29. MEYER JP (Editor); Proceedings of the 10th International Conference on Heat Transfer, Fluid Mechanics and Thermodynamics, USB with 300 papers, HEFAT2014, Orlando, ISBN: 978-1-77592-068-7, 14-16 July 2014.

30. MEYER JP (Editor); Proceedings of the 11th International Conference on Heat Transfer, Fluid Mechanics and Thermodynamics, USB with 130 papers, HEFAT2015, Skukuza, ISBN: 978-1-77592-108-0, 20-23 July 2015.

31. MEYER JP (Editor); Proceedings of the 12th International Conference on Heat Transfer, Fluid Mechanics and Thermodynamics, USB with 300 papers, HEFAT2016, Malaga, ISBN: 978-1-77592-124-0, 11-13 July 2015.

32. MEYER JP (Editorial): Preface: 10th International Heat Transfer, Fluid Mechanics and Thermodynamics Conference, Heat Transfer Engineering, Vol. 37, No. 1, 2016.

33. MEYER JP (Editor); Proceedings of the 13th International Conference on Heat Transfer, Fluid Mechanics and Thermodynamics, USB with 240 papers, HEFAT2017, Poirtorož, ISBN: 978-1-77592-140-0, 17-19 July 2017.

34. MWESIGYE A and MEYER JP (Editorial); 12th International Heat Transfer, Fluid Mechanics and Thermodynamics Conference – HEFAT2016, Vol. 40, No. 13-14, pp. 1073 – 1074, 2019.

35. MWESIGYE A and MEYER JP (Editorial); 13th International Heat Transfer, Fluid Mechanics and Thermodynamics Conference – HEFAT2017, Vol. 41, No. 15-16, pp. 1303 – 1304, 2020.

36. MEYER JP (Editor); Preface International Conference on Heat Transfer, Fluid Mechanics and Thermodynamics 2014, Computational Thermal Sciences, Vol. 12 (5), 2020.

Articles submitted for review

1. NDENGUMA D, DIRKER J and MEYER JP; Correlating heat transfer and pressure drop in annuli for different non-uniform internal wall temperature boundary conditions and annular diameter ratios in the transitional flow regime, International Journal of Heat and Mass Transfer, manuscript number: HMT_2018_681, submitted on 8 February 2018.

2. MH JAHANGIR, M GHAZVINI, F POURFAYAZ, MH AHMADI , M SHARIFPUR AND JP MEYER; A computational model of convective heat and moisture flows, International Journal for Numerical Methods in Engineering, manuscript number: NME-Feb-18-0117, submitted on 16 February 2018.

3. RUNGASAMY AE, CRAIG KJ, MEYER JP; Comparative study of the optical and economic performance of etendue-conserving compact linear Fresnel reflector concepts, Solar Energy, submitted on 28 February 2018.

4. SHOTE A, MAHMOOD GI and MEYER JP; Endwall Flow Sensitivity to Blade Fillet Geometry in a Linear Vane Cascade, Journal of Fluids and Structures, manuscript number: YJFLS_2018_148, submitted on 6 March 2018.

5. MAHDAVI M, SHARIFPUR M, AHMADI MM and MEYER JP; Aggregation study of Brownian nanoparticles in convective phenomena, Journal of Thermal Analysis and Calorimetry, manuscript nr: Ms. No. JTAC-D-17-01447R1, submitted on 6 April 2018.

6. ABOLARIN SM, MEYER JP and EVERTS M; Heat transfer and pressure drop characteristics of alternating clockwise and counter clockwise twisted tape inserts in the transitional flow regime, International Journal for Heat and Mass Transfer, Manuscript: HMT_2018_2340, submitted on 16 May 2018.

7. RAMNATH V, SHARIFPUR M and MEYER JP; Mathematical analysis of nanofluid thermophysical statistical models utilizing multivariate copulas, Computers and Fluids, manuscript: CAF-D-18-00710, submitted on 27 July 2018.

8. SHAHSAVAR A, KHAKI M, MOGHIMI MA and MEYER JP; Second law of thermodynamics studies of hybrid photovoltaic/thermal systems: a review, Applied Energy, submitted on 30 August 2018.

9. ADELAJA AO, EWIM DRE, DIRKER J and MEYER JP; Heat transfer and pressure drop during condensation inside inclined smooth and microfin tubes, International Journal of Heat and Mass Transfer, HMT_2019_940, submitted on 23 February 2019.

10. OSMAN S, SHARIFPUR M and MEYER JP; Experimental study on the Convection Heat Transfer Enhancement in Transition Flow Regime of Aqueous Titanium Oxide Nanofluids Flowing in a Rectangular Channel, International Communications in Heat and Mass Transfer, manuscript number: ICHMT-D-19-00133, submitted on 5 March 2019.

11. SHOTE AS, MAHMOOD GI and MEYER JP; Influences pf large fillets on endwall flows in a vane cascade with upstream slot folm-cooling, Experimental Thermal and Fluid Science, manuscript number ETFS_2019_526, submitted on 11 June 2019.

12. EMANI MS, RANJAN H, BHARTI AK, MEYER JP and SAHA SK; Laminar Flow Compound Heat Transfer Enhancement Methods, International Journal of Heat and Mass Transfer, manuscript number: HMT_2019_2992, revised submitted on 2 August 2019.

13. NEMATI H, MORADAGHA M, SHEKOOHI SA, MOGHIMI MA and MEYER JP; Natural convection heat transfer from horizontal annular finned tubes based on modified Rayleigh number, International Communications on Heat and Mass Transfer, manuscript number: ICHMT-D-19-00649, submitted on 20 June 2019.

Consulting reports to industry (selected)

1. MEYER JP; Calculation of the heat flow from rock surfaces into a stope working area, Chamber of Mines (COMRO), 1989.

2. MEYER JP and LE GRANGE L; The use of scoops to improve ventilation at the coal face of coal mines, Chamber of Mines (COMRO), 1990.

3. MEYER JP; The simulation of the flow field through the inlet of a reactor with computational fluid dynamics, SASOL, 1991.

4. MEYER JP; The numerical prediction of the flow field in the vicinity of the economiser banks of a boiler, Eskom, 1992.

5. MEYER JP; The numerical prediction of the flow field in the vicinity of a gasifier outlet, SASOL, 1993.

6. MEYER JP and GREYVENSTEIN GP; An investigation into the existing compressed air system of the South African Airways, 1995.

7. MEYER JP, TSHIMANKINDA M and MEYER JP; Potential for hot-water heating with heat pump reticulation in the domestic sector – techno-economic study, project no: EO 9517, Department of Energy and Mineral Affairs, 1996.

8. MEYER JP; Strategy for the establishment of an energy performance contracting (EPC) industry in South Africa, project no: ED9607, Department of Energy and Mineral Affairs, 1996.

9. MALAN AG, VISSER CJ and MEYER JP; Continuum Thermodynamic Modelling of a Pebble-Bed Modular Reactor: Governing Equations and Discretization Methodology", for North-West University and PBMR, Report nr. 0401, 26 pages, 2004.

10. PATTINSON J, MALAN AG and MEYER JP; Development of a fast non-conforming Cartesian mesh Euler solver for application to missile design, Client: Denel Aerospace Systems (Pty) Ltd, BE at UP, 2005.

11. LIEBENBERG L, CHRISTIAANS M, VAN ROOYEN E and MEYER JP; Propulsion Systems: a review of the

state-of-the-art in ground-vehicle propulsion systems and fuels, Client: Eskom, BE at UP, 174 pages, 2006.

12. MALAN AG, VISSER CJ and MEYER JP; Continuum thermodynamic modelling of a pebble-bed modular reactor, Client: North-West University and PBMR, Report no 0607, 106 pages, 2006.

13. DIRKER J and MEYER JP (design and report review); Thermal heat sink performance investigation, Client: Addictive Racing Development, 18 pages, 2009.

Non-scholarly lectures

1. MEYER JP; Education and Training of Engineers in South Africa, South African Institute of Mechanical Engineers, Central Branch, Technical presentation and dinner event, Johannesburg, 17 April 2013.