



BLUE BULLETIN 9

NEWS

- We are proud to announce that our university made a significant progress in the 2024 QS global ranking on Sustainability, and is now ranked 156th globally. We moved forward by 20 positions from our last ranking.
- Congratulations to Dr Madelein Labuschagne and Dr Ruaan Kellerman on their promotion to the rank of Senior Lecturer in our department. We wish them the best of luck in their new role.
- We are pleased to welcome Dr Tesfalem Tegegn and Dr Jonathan Homann as lecturers in our department. We wish that our department will be a professional home where their career will blossom and thrive.

RESULTS OF WITS MATHEMATICS COMPETITION

We give a summary of the results of our students below.

- Zerwick De Lange – 3rd Place Overall and 1st Place Gauteng.
- Gerlo Theron – 10th Place Overall and 2nd Place Gauteng.
- Liné Crafford – 3rd Place Gauteng and Best Girl Gauteng.
- Franco Prins – 5th Place Gauteng.
- Michael Dreeckmeier – 6th Place Gauteng.
- Lourie Bosman – 8th Place Gauteng and Best Proofs Gauteng.
- Darren Hill – 10th Place Gauteng.

RESEARCH LEAVE

SY Madanha will be on a research visit from 27/12/2023 to 07/02/2024 at the University of Zambia.

BIRTHDAYS

DECEMBER

- 8 – Philibert Nang
- 21 – Tesfalem Tegen
- 21 – Belayneh Yizengaw
- 27 – Bridgette Simelane

JANUARY

- 7 – James Raftery
- 9 – Simon Khanye
- 18 – Molatelo Rapudi
- 23 – Marietjie Ohlhoff

Erasmus+ ICM Programme (By Jan Harm van der Walt)

In these times of constrained funding, the European Union's Erasmus+ ICM programme is an excellent opportunity to obtain funding for visits by staff and student exchanges at European universities. If you have a collaborator at a participating institution in Europe, I strongly encourage you to bring this opportunity to their attention (applications have to be submitted by the European institution). The application process is relatively painless and does not require a research proposal. In addition, the funding provided is quite generous. More details on the programme can be found [here](#).

There is an ongoing project with Leiden University under this programme. This is the second such project with Leiden. The previous project supported three longer visits by staff (Miek Messerschmidt, Eder Kikianty and myself) as well as one five-month student exchange (Walt van Amstel). Under the current project, Marten Wortel visited Leiden in December last year, and Tomas Chamberlain is currently on a student exchange in Leiden. Several more visits are planned for next year, both by UP staff in Leiden and vice versa.

I would also like to remind our colleagues that the project with Leiden is not limited to the Functional Analysis group. All members of staff (provided that they can identify someone in Leiden with whom they have a reasonable overlap in academic interests, and who is willing to act as a host during their visit) and postgraduate students (MSc & PhD) are welcome to make use of this opportunity. For students this is a good opportunity to take part in the Dutch Master Math programme, which offers a wide variety of postgraduate courses, see the [MasterMath website](#) for details. If you are interested in visiting Leiden, please keep the following practical matters in mind.

- The duration of staff visits can be anything from 5 to 60 days. Student exchanges range from 2 to 12 months, but 5 months (one semester) is typical.
- Marcel de Jeu has to submit a nomination for a staff visit at least 8 weeks before the start of the visit.
- For students who are to follow courses, there are two deadlines. One for their nomination by me (1 March for the Dutch fall semester and 15 September for their spring semester), and one for their actual application (1 April for the fall semester and 15 October for the spring semester).
- Funding for staff visits consists of €1500 travel support, and subsistence of €160 per day for the first 14 days plus €112 per day for subsequent days.
- Funding for students consists of €1500 travel support and subsistence of €850 per month. This is not sufficient to survive in Leiden, and additional sources of funding must be secured for student visits.

Please email Marcel (mdejeu@math.leidenuniv.nl) or me if you want to make use of this opportunity.

CONFERENCES, SEMINARS AND WORKSHOPS

- A few colleagues gave talks at the 66th Annual Congress of the South African Mathematical Society (SAMS) held at the University of Johannesburg from 5–7 December 2023. Details are given below.

Eder Kikianty	Trailblazers: Ismail Mohamed's mathematical contributions; Generalised Lambert Transforms: Mathematical Contributions of Joe Mokoena.
Yash Madanha	Codegrees and element orders of finite groups.
Mathibele Nchabeleng	Hydraulic fracturing with fluid leak-off: Mathematical models and solutions.
James Raftery	Singly generated quasivarieties and residuated structures.
Valisoa Rakotonarivo	Split sequences of trees.
Bernardo Rodrigues (Plenary)	On two-weight codes invariant under finite simple groups.
Walt van Amstel	Free objects in analytic categories.
Jan Harm van der Walt	Category measures, the dual of $C(K)^\delta$ and hyper-Stonean spaces.
Jamie Wannenburg	Singly generated quasivarieties and residuated structures; Elementary equivalence in positive logic via prime products.

- The Southern Africa Mathematical Sciences Association (SAMSA) conference was organised at UP from 21–24 November 2023. A million thanks to all colleagues that contributed to the success of the meeting. Colleagues that gave talks at SAMSA are:
 - James Raftery: Singly generated quasivarieties and residuated structures;

- Valisoa Rakotonarivo: A polynomial associated with rooted trees and specific posets;
 - Mihaja Ramanantoanina: Dispersal strategies and population persistence in the face of climate change;
 - Belinda Stapelberg: Earthquake induced oscillations of high-rise structures;
 - Maya Thackeray: Every friend of 10 has at least 10 different prime factors;
 - John van den Berg (Plenary): V-domain constructions using a Kolchin type universal field;
 - Jamie Wannenburg: Elementary equivalence in positive logic via prime products.
- From 10 – 15 December 2023, Maya Thackeray served as a coach at a mathematics camp at Stellenbosch University, where he trained undergraduate students in Olympiad mathematics as well as selected the South African team for the 2024 International Mathematics Competition. The Mathematics camp was organised by the South African Mathematics Foundation (SAMF).

PUBLICATIONS IN ISI/ACCREDITED JOURNALS

Congratulations to the following colleagues whose articles have been published

- CS Anabanti – *Quasigroups and Related Systems* **31(2)**(2023), 165–174
- J Banasiak (with BA Danquah and F Chirove) – *Mathematical Biosciences and Engineering* **20(7)**(2023), 11895–11938
- S du Toit, M Labuschagne (with A van der Merwe), *ZAMM Z. Angew. Math. Mech.* **100(11)**(2023); e202200586
- R Kufakunesu, G van Zyl (with TA Wekwete) – *Intelligent Systems with Applications* **20**(2023); 200286

Congratulations to the following colleagues whose articles have been accepted

- SY Madanha (with A Ballester-Bolinches, M Mudziiri Shumba and MC Pedraza-Aguilera) – *Bulletin of the Australian Mathematical Society*
- JJ Wannenburg and JG Raftery – *Algebra Universalis*

