BLUE BULLETIN 1

NEWS

- J Banasiak was invited to a podcast; see Mathematical models and reality (in Polish): `https://www.youtube.com/@ToBardziejSkomplikowane`.

- Professor Laszlo Szalay (of the University of Sopron, Hungary) visited our department from 27 to 31 January 2025. He was hosted by TP Chalebgwa and H(M)R Thackeray, and he delivered a talk entitled "On a family of identities concerning linear recurrences" on 29 January 2025.

RATINGS

Congratulations to the following colleagues on their NRF ratings:
- M Chapwanya (C1); • AS Jooste (C2); • JG Raftery (A2).

LEAVES/VISITS

- CS Anabanti is on a Sabbatical leave from 1 February 2025 to 30 June 2025. He is currently serving as a Visiting Professor at the Graz University of Technology (TU Graz), Austria, for the whole leave period.

- J Banasiak will be on a research visit to the Institute of Applied Mathematics, University of Warsaw and Institute of Mathematics, Łódź University of Technology, Poland, from 21 February to 7 March 2025.

- TP Chalebgwa was on a research leave from 6 to 25 January 2025.

- M Chapwanya is on a research visit to the University of Texas at Arlington, USA, from 20 January 2025 to 7 February 2025.

- P Dumani is on a research visit to the University of Texas at Arlington, USA, from 20 January 2025 to 7 February 2025.

- AS Jooste will be on research leave from 1 July 2025 to 31 December 2025.

- JH van der Walt is on a Sabbatical leave from 8 December 2024 to 30 June 2025. He is currently on a research visit to Leiden University, the Netherlands from 8 December 2024 to 8 February 2025.

BIRTHDAYS

JANUARY	FEBRUARY	MARCH
7 – James Raftery	18 – Phindile Dumani	11 – Désirée Moubandjo
9 – Simon Khanye	19 – Rachel Combrink	13 – Mapundi Banda
18 – Molatelo Rapudi		13 – Leonie Mostert
20 – Walt van Amstel		15 – Jacek Banasiak
23 – Marietjie Ohlhoff		26 – Chris Schwanke
		28 – Chigoziem Emereuwa
		28 – Baphumelele Nxala
		30 – Taboka Chalebgwa

CONFERENCES, SEMINARS AND WORKSHOPS

- CS Anabanti will talk on "Constrained sets in finite groups" whilst serving as the guest speaker of the 2nd Slovak–Nigerian Workshop in Mathematics, Physics & Informatics organized by the Mathematical Institute of the Slovak Academy of Sciences (SAS), Slovakia, on 12 February 2025.

- MK Banda gave a talk entitled "Numerical optimal control approach for a hyperbolic system of conservation laws" on 29 November 2024 at the 2024 SAMSA conference held at the Windhoek Main Campus of the University of Namibia (UNAM), Namibia, from 26 to 29 November 2024. He delivered a lecture entitled "Analysis of networked first–order hyperbolic systems of fluid flow" at the International Meetings on Differential Equations and Their Applications (IMDETA) seminar of the Institute of Mathematics, Łódź University of Technology, Poland, on 15 January 2025.

- TP Chalebgwa attended the CIMPA School on Enumerative Combinatorics (and applications to Computer Science) at Stellenbosch University from 6 to 17 January 2025. He gave a talk entitled "Erdös– Liouville Sets" at the Stellenbosch Number Theory Conference 2025 held at Stellenbosch University, South Africa, from 20 to 24 January 2025.

- M Chapwanya gave a plenary talk entitled "Design of Mickens' Schemes: Application to some models in mathematical biology" at the Modelling in the context of African Health (MoCAH 2024) held from 15 to 17 November 2024 at Riverside Hotel, Durban, South Africa. He gave a talk on "Some recent results in nonstandard finite difference schemes" at Mid-day Mathematical Modelling workshop on 20 November 2024 at the School of Computer Science and Applied Mathematics, University of the Witwatersrand, South Africa. He gave a talk entitled "On Ebola Virus Disease modelling: Impact of human behaviour, the environment and conflict on the transmission dynamics" at the University of Texas at Arlington, USA, on 24 January 2025. Finally, he delivered a talk on "The role of virus lifespan and contact rate in the spread of crop vector-borne diseases" at the University of Texas at Arlington Colloquium on 31 January 2025.

- P Dumani gave a talk on "Spatial patterns in microbial communities within hostile environments" at the Southern Africa Mathematical Sciences Association (SAMSA) Annual Conference held from 6 to 29 November 2024 at the University of Namibia Windhoek campus, Namibia. She also delivered a talk on "Spatial patterns in microbial communities" at Mid-day Mathematical Modelling workshop on 20 November 2024 at the School of Computer Science and Applied Mathematics, University of the Witwatersrand, South Africa. Finally, she delivered a talk entitled "Spatio-temporal dynamics of microbial populations" at the University of Texas at Arlington, USA, on 31 January 2025.

- YHN Dumont delivered a lecture entitled "Vector-borne plant diseases: impact of vector preferences on the spatial spreading of Infectious Diseases" at the IMDETA seminar of Łódź University of Technology on 8 January 2025. He served as an invited speaker at the DSABNS 2025 conference in Naples, Italy, from 18 to 25 January 2025, where he gave a talk entitled "New results related to residual fertility and re-mating in the Sterile Insect Technique against fruit flies".

- H(M)R Thackeray delivered a 20-minute talk entitled "The exponential local-global principle and power residue symbols" at the 2024 SAMS congress that held from 4 to 6 December 2024 at the University of Pretoria. He served as a coach at an Olympiad mathematics training camp for high-school students at Stellenbosch from 8 December to 13 December 2024. He also delivered a talk on "The exponential local-global principle and power residue symbols" at the Stellenbosch Number Theory Conference 2025, which took place at Stellenbosch University from 20 to 24 January 2025. His latter talk is an updated version of his SAMS 2024 talk.

- JH van der Walt will attend the conference on ordered structures and applications (COSA) at the Wits Rural Facility near the Kruger Park from 31 March to 4 April 2025. From 2 June to 7 June 2025, he will attend the conference "Positivity XII" in Manar Hammamet-Nabeul, Tunisia.

PUBLICATIONS IN ISI/ACCREDITED JOURNALS

Congratulations to the following colleagues whose articles have been published

- J Banasiak (with BA Danquah and F Chirove) – *Afrika Matematika* 36(1)(2025); Article number 1.

- C Schwanke (with M Roelands) – *J. Math. Anal. Appl.* 541(1)(2025); 128671.

Congratulations to the following colleagues whose articles have been accepted

- CS Anabanti (with AK Asboei) – *Quaestiones Mathematicae*

- AS Jooste (with KH Jordaan) – *Journal of Approximation Theory*

Book publication: Congratulations to the following colleague on his publication

J Banasiak, Introduction to Mathematical Methods in Population Theory, Springer Cham, XIII+615 pages, published 21 December 2024, ISBN 978-3-031-65490-9, DOI: https://doi.org/10.1007/978-3-031-65491-6.