



BLUE BULLETIN 1

The annual international conference on Mathematical Methods and Models in Biosciences (Biomath) will take place from 16 June to 21 June 2024 in the Cutty Sark Resort, Scottburgh, South Africa. The conference is hosted by the DSI/NRF SARCHI Chair on Mathematical Models and Methods in Bioengineering and Biosciences and Department of Mathematics and Applied Mathematics at University of Pretoria. For more details, see <https://www.up.ac.za/cf-biomath2024>.

Congratulations to:

- Michael Chapwanya on his promotion to the academic rank of Professor w.e.f. January 1, 2024;
- Jan Harm van der Walt on receiving an NRF C1 rating for the period 2024 to 2029.

LEAVES

- 29/01/2024 – 01/03/2024: CS Anabanti visited CIRM France and the University of Salerno, Italy.
- 29/01/2024 – 09/02/2024: J Banasiak visited Łódź University of Technology, Poland.

VISITORS

- Marcel de Jeu & Onno van Gaans (Leiden University, the Netherlands) visited the department from 21–28 March.
- Mark Roelands (Leiden University, the Netherlands) is on a visit to the department from 21 March to 5 April.

RECENT GRADUATES

These are the graduates for the upcoming graduation ceremony on 14 May 2024.

- PhD Mathematical Sciences:
 - Américo José Matusse (Supervisor: Prof M Chapwanya; Co-supervisor: Prof YHN Dumont).
 - Avulundiah Edwin Phiri (Supervisor: Dr M Gandhi; Co-supervisor: Prof R Anguelov).
 - Rheinhardt Hendrik Sieberhagen (Supervisor: Prof NF Janse van Rensburg).
 - Sarel Jakobus van der Walt van Amstel (Supervisor: Prof JH van der Walt; Co-supervisor: Prof MFE de Jeu).
- MSc Applied Mathematics:
 - Constance Dipuo Tikane – Supervisor: Dr M Labuschagne; Co-supervisor: Prof NF Janse van Rensburg.
- MSc Mathematics:
 - Tomas Chamberlain (with distinction) – Supervisor: Prof JH van der Walt; Co-supervisor: Dr MR Wortel.
- MSc Financial Engineering:
 - Lipuo Rammoko (Supervisor: Prof GW van Vuuren).
 - Sharmaine Fanuel Promise Sibanda (Supervisor: Prof GW van Vuuren).
- BSc Honours:
 - Applied Mathematics: Franco du Plessis, Steven Jakie Matome, Richard Frederik Pretorius and Masala David Ramuhashi.
 - Mathematics: Thato Koloti (with distinction), Louis Jacobus Nel (with distinction), Kirsty Michaela Rotter and Kholeka Sibiya.
 - Mathematics of Finance: Danell Erika Joubert and Khethokuhle Lindokuhle Mthobisi Khuzwayo.
 - Financial Engineering: Caleb Israel Campbell, Alexia Daniel and Maredi Phillistus Ramaila.

BIRTHDAY IN APRIL

3 April – Bernardo Rodrigues

CONFERENCES, SEMINARS AND WORKSHOPS

- CS Anabanti
 - gave a talk on “A new kind of polynomials for finite groups” at the 2024 Geometric and Asymptotic Group Theory with Applications (GAGTA) conference which was held at CIRM, Marseille, France from 5–9 February.
 - gave an invited talk at the University of Salerno, Fisciano, Italy on 28 February 2024.
- J Banasiak
 - gave a mini-course entitled “Partial differential equations – classic and modern” at the 3MC African Mathematical School on Quantitative Biology: Applications in Epidemiology, Ecology and Cancer which was held from 19–27 February 2024 at NWU, Potchefstroom.
 - gave a plenary talk on “Direct Lyapunov method - known and less known” at the 3MC International Conference on Mathematical Modeling in Biology and Life Sciences held 28 February to 1 March at NWU, Potchefstroom.
 - gave an invited lecture and panel on Pure and Applied Mathematics at the 10 Anniversary of CoE–MaSS entitled “Siyakhula: Growing Mathematics in Africa” which was held at AIMS South Africa from 17–22 March.
 - will give a course entitled “Waves and Diffusions” at the 32nd Chris Engelbrecht Summer School 2024 on Recent trends in gravitation at the Alpine Heath Resort and Conference Centre in Drakensberg from 31 March to 7 April.
- E Kikianty gave a plenary talk at the Functional Analysis and Operator Theory South Africa (FAOTSA) 2024 Workshop that was held 17–19 March 2024 at AIMS, Muizenberg, Cape Town, South Africa.
 - Other colleagues that attended the FAOTSA 2024 Workshop are M de Jeu, J Homann, M Messerschmidt, L Naude, W van Amstel, JH van der Walt and M Wortel.
- R Kufakunesu and G van Zyl will give invited talks at the NITheCS Quantitative Finance Workshop 2024 at Stellenbosch University from 8–10 April 2024.

PUBLICATIONS IN ISI/ACCREDITED JOURNALS

Congratulations to the following colleagues whose articles have been published

- J Banasiak and SY Tchoumi – *Mathematics and Computers in Simulation* 221 (2024), 1–18
- M de Jeu and JH van der Walt – *Quaestiones Mathematicae* 47 (2024), 101–119
- Y Dumont (with M Duprez) – *Journal of Biological Systems* 32(1) (2024), 311–347
- Y Dumont (with IV Yatat–Djeumen) – *Mathematical Biosciences* 370 (2024); 109165
- R Kellerman (with V Goranko and A Zanardo) – *Contributions to Discrete Mathematics* 18(2) (2023), 188–209
- R Kellerman (with V Goranko and A Zanardo) – *Contributions to Discrete Mathematics* 18(2) (2023), 210–233
- E Kikianty – *Quaestiones Mathematicae* 47 (2024), 247–264
- SY Madanha (with A Ballester-Bolinches, J Cossey and MC Pedraza-Aguilera) – *Acta Mathematica Hungarica* 172 (2024), 161–169
- M Messerschmidt – *Discrete and Computational Geometry* 71 (2024), 667–682
- SY Tchoumi (with CW Chukwu and ML Diagne) – *Decision Analytics Journal* 10 (2024); 100423
- SY Tchoumi (with J Elissa and JM Tchuenche) – *Decision Analytics Journal* 10 (2024); 100374
- B Tsanou (with C Tadmon and AF Fossi) – *Commun Nonlinear Sci Numer Simulat* 133 (2024); 107981
- JJ Wannenburg and JG Raftery – *Algebra Universalis* 85(1) (2024), Article 10, 34 pp.

Congratulations to the following colleagues whose articles have been accepted

- J Banasiak and SY Tchoumi (with R Ouifki) – *Mathematical Methods in the Applied Sciences*
- E Kikianty and M Messerschmidt – *Discrete and Computational Geometry*
- E Maré (with S Harriparsad) – *SAJEM*

BOOK CHAPTER

Chapwanya M. and Dumani P., Dynamics preserving nonstandard finite difference scheme for a microbial population model incorporating environmental stress. *Mathematical and Computational Modeling of Phenomena Arising in Population Biology and Nonlinear Oscillations*, Contemp. Math. 793 Amer. Math. Soc., 75–91, 2024.

