



BIOMATH – 2021 International Conference and School for Young Scientists

Roumen Anguelov¹, Jacek Banasiak², Michael Chapwanya²

¹Institute of Mathematics and Informatics,
Bulgarian Academy of Sciences, Bulgaria
roumen@biomath.bg

²Department of Mathematics and Applied Mathematics,
University of Pretoria, South Africa
jacek.banasiak@up.ac.za
m.chapwanya@up.ac.za

Abstract

This is a brief report on the BIOMATH–2021 International Conference and School for Young Scientists held in Pretoria, South Africa.

The 10th Annual International Conference on Mathematical Methods and Models in Biosciences (BIOMATH–2021) was supposed to take place in June 2020 in the Salt Rock Hotel in South Africa. However, due to the Covid-19 pandemic and associated with it restrictions it could not happen and was postponed by one year. Unfortunately, the ongoing pandemic made it impossible to organize a fully blown conference also in 2021. It was thus decided to organize BIOMATH–2021 in a hybrid format. Physically, the conference took place in the Protea Loftus Hotel in Pretoria, South Africa. As with the previous editions, the International Conference BIOMATH – 2021 and the School for Young Scientists were devoted to the presentation of recent research results in mathematically based life sciences.

Following the established tradition of the previous nine BIOMATH conferences, <http://www.biomath.bg/>, that took place in Bulgaria, Poland

Copyright: © 2021 Roumen Anguelov, Jacek Banasiak, Michael Chapwanya. This article is distributed under the terms of the Creative Commons Attribution License 4.0, which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited. Published: August 26, 2021, Updated: June 2, 2022

Citation: Roumen Anguelov, Jacek Banasiak, Michael Chapwanya, BIOMATH – 2021 International Conference and School for Young Scientists, Biomath Communications 8 (2021), 2108265, <https://doi.org/10.11145/bmc.2021.08.265>

and South Africa, see [3], [4], [5], [1], also this year's meeting was organized in such a way that the School for Young Scientists [6], [7], [8], [9], was integrated with the main conference. The lectures of the school were of more introductory nature giving foundations and insight into the respective topic rather than focusing on new results but the participants of the School were able to present their results during the conference.

Altogether, it was a multidisciplinary meeting forum for researchers and postgraduate students, who are engaged in development and applications of qualitative tools in broad fields of biology, ecology, medicine, biotechnology, bioengineering, environmental science, etc. There were 14 participants present in person and 37 taking part on-line. In particular, we had participants from South Africa (29), India (1), Bulgaria (2), France (2), Cameroon (1), Japan (1), Columbia (2), USA (4), Ukraine (1), Indonesia (1), India (1), Brazil (1), UK (2) and Eswatini (2). There were two lectures for the School for Young Scientists delivered by A. Yakubu (USA) and J. Banasiak (SA), 6 keynote and 1 invited lectures presented by well-known experts in the field, B. Perthame (France), M. Ptashnik (UK), J. Snoep (SA), J. Hargrove (SA), M.S. Aronna (Brazil), A. Yakubu (USA) and F. Nyabadza (SA).

Special thanks go to Venues for Conferences in Africa and Vicki Hooper for finding a perfect location for the conference and a seamless organization of the event. She made a great effort to make the event enjoyable and stimulating despite the challenging pandemic times.

We have sincere hopes that it will be possible to organize a normal conference next year, possibly on the east coast of South Africa.

The following students took part in the School for Young Scientists:

1. Mr Avulundia Phiri
2. Ms Phindile Dumani
3. Mr Americo Matusse
4. Mr Nduduzo Majози
5. Mr Poka Wetsi
6. Ms Eminugroho Sari



Figure 1: Participants of BIOMATH-2021 in Pretoria

References

- [1] The website of the Biomath-2019 Conference at the Banach Center: <https://www.impan.pl/en/activities/banach-center/conferences/19-biomath>.
- [2] The BIOMATH conference series website: <http://www.biomath.bg/>
- [3] S. Markov, P. Milanov, R. Anguelov, Brief report on the Biomath 2015 Conference. *Biomath Communications* 2/2 (2015), <https://doi.org/10.11145/600>.
- [4] Shipman, P. D., BIOMATH 16 International Conference and School for Young Scientists, 3/2 (2016), <https://doi.org/10.11145/bmc.2016.11.161>.
- [5] Wolkowicz, G. S. K., BIOMATH 18 International Conference and School for Young Scientists, *Biomath Communications* 5(2), pp. 136-139 (2018), <https://doi.org/10.11145/bmc.2018.08.077>.

- [6] R. Anguelov, S. Markov, Biomathematical Conferences and Schools for Young Scientists at the Bulgarian Academy of Sciences. *Biomath Communications* 1/2 (2014), <https://doi.org/10.11145/j.bmc.2014.02.261>.
- [7] R. Anguelov, S. Markov, Integrating learning and research at the “Biomath” conference series. *Biomath Communications* 1/2 (2014), <https://doi.org/10.11145/j.bmc.2015.03.091>
- [8] Vladimirov V., Sapundzhi F., Krалеva R., Krалев V. Modified Genetic Algorithm to Traveling Salesman Problem for Large Input Datasets, *Biomath Communications* 3(1), p. 71 (2016), <https://doi.org/10.11145/bmc.2016.06.157>.
- [9] Sapundzhi F. Scoring Functions and Modeling of Structure-Activity Relationships for Cannabinoid Receptors, *International Journal of Online and Biomedical Engineering*, 15(11), 139-145 (2019), <https://doi.org/10.3991/ijoe.v15i11.10893>.