



BIOMATH 2018 International Conference and School for Young Scientists

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The International Conference BIOMATH 2018 on Mathematical Methods and Models in Biosciences integrated with a School for Young Scientists was hosted by the Bulgarian Academy of Sciences, in Sofia, Bulgaria between June 24th and June 29th, 2018. BIOMATH 2018 was one of the events associated with the Year of Mathematical Biology 2018 (YM2018), a joint venture between the European Mathematical Society (EMS) and the European Society for Mathematical and Theoretical Biology (ESMTB).

The conference was an international event that attracted participants from 25 countries. The conference took place at the Institute of Mechanics of the Bulgarian Academy of Sciences. It also obtained administrative and logistical support from the Institute of Mathematics and Informatics. As is the tradition, the BIOMATH conference series

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Figure 1: Participants of BIOMATH 2018.

places a strong emphasis on the support and promotion of young scientists and this meeting followed this tradition. This was made possible by additional support from Biomath Forum and the South African DST/NRF SARChI Chair in Mathematical Models and Methods in Bioengineering and Biosciences at the University of Pretoria.

The conference was an international and interdisciplinary event, with participants from 25 countries taking part. There were more than 40 talks on a broad range of topics related to mathematical biology and life sciences. The Roumen Tsanev plenary lecture was delivered by Nevena Ilieva. After giving a brief introduction to the important contributions of Roumen Tsanev to the field of molecular biology, she discussed the methods used in the study of proteins. There were also 5 keynote lectures delivered by scientists with affiliations from Austria, Canada, France, Germany, Poland, and the UK. They covered di-



Figure 2: At the conference banquet: (*left*) Certificate and Awards Ceremony for the Young Scientists; (*right*) Participants enjoying Bulgarian folk dancing.

verse topics including individual-based models and their applications, insight into live cell motility, the impact of noise on animal communications and resulting pattern formation, analysis of chemostat models and their relationship to models of anaerobic digestion, and modelling protein aggregation. There were no parallel sessions, and so we were able to attend all the talks presented. There was also a poster session with posters displayed in the room where the talks were given, so that the posters could be discussed during as well as after the formal poster session.

The School for Young Scientists was integrated into the meeting. There were two talks specifically designated for the participants of the school. Many of the graduate students also presented talks at the conference. Prizes for the best talks by graduate students and certificates for participation were presented during the banquet. Besides the delicious food, the banquet was especially memorable for the live singing and the live performance of Bulgarian folk dancing with dancers in beautiful authentic costumes. We were all encouraged to join in. It was lots of fun and exercise.

One of the highlights, designed for the young scientists, but that seemed to be enjoyed by everyone who attended, were the two back-to-back sessions on hot topics, chaired by keynote speakers. A lively

debate concerning the future of mathematical biology ensued. It was exciting to hear not only the experienced researchers opinions, but also the very well-articulated ideas put forth by the graduate students.

The interaction between all of the participants was definitely enhanced during the fascinating excursion to Plovdiv, a city of cultural and historical importance, with signs of habitation dating as far back as the 6th millenium BCE. While walking through the cobble stone streets together, we were able to discuss our common research interests and initiate potential collaborations.

Many thanks to the organizers of this meeting for making the conference and the school so scientifically stimulating and enjoyable, and making our stay in Sofia so comfortable.

In 2019 the BIOMATH Conference will be held in Będlewo, Poland.