



MATHEMATICS OF LIFE

MoL 2021

Mathematics is biology's next microscope, only better;
biology is mathematics' next physics, only better.
Joel Cohen (2004)

September 13-16, 2021, Hisarya, Bulgaria & online

The Workshop is devoted to selected topics in mathematical biology research in both its analytical and computational components, thus illustrating the synergy between mathematics, physics, chemistry, computing and biology. The program is mainly focused on problems related to the modelling and simulations of topologically complex structure and dynamics, including, but not being limited to:

- Protein structure, dynamics and interactions
- Large-scale molecular simulations
- Topology in biomodeling and bioinformatics
- Neural networks from/in biological research
- Bio-medical applications
- Model studies on SARS-CoV-2 and COVID-19

The Workshop aims to bring together experts and young researchers in the analytical and computational studies of biopolymers and, among others, will provide a cross-package discussion forum for participants in the COST Action EUTOPIA (CA 17139) with interests in this particular aspect of the Action's program.

Opening Lecture: David A. Leigh (Royal Society Research Professor & Sir Samuel Hall Professor of Chemistry, University of Manchester, UK)

Keynote speakers (confirmed): Adam Liwo (University of Gdansk, Poland), Antti J. Niemi (NORDITA & Uppsala University, Sweden), Franco Ferrari (University of Szczecin, Poland), Marek Cieplak (Institute of Physics, Polish Academy of Science, Warsaw, Poland), Noam Kaplan (TECHNION, Israel), Pietro Faccioli (University of Trento, Italy), Roumen Anguelov (University of Pretoria, South Africa), Sarah Harris (University of Leeds, UK)

Organisers:

Institute of Information and Communication Technologies, Bulgarian Academy of Sciences, (Sofia, Bulgaria) and CIC biomaGUNE (Donostia, Spain), in association with the European Topology Interdisciplinary Action (COST EUTOPIA, CA 17139), the Bulgarian Center of Excellence for Informatics and Information and Communication Technology, Section "Biomathematics and Scientific Computing" of the Union of Bulgarian Mathematicians, and the Bulgarian Section of SIAM, with partial support from EUTOPIA Cost Action and the Bulgarian Science Fund (Grant KP-06-COST-9/2019).

Scientific Committee:

Nevena Ilieva (IICT – BAS, Bulgaria), Ivan Coluzza (CIC biomaGUNE, Spain)
Luca Tubiana (University of Trento, Italy & EUTOPIA Chair)

Location:

The Workshop will take place in the picturesque resort Hissarya, in the Plovdiv Province of Bulgaria. The area was inhabited since prehistoric times (before V millennium BC), with amazing archeological findings from this period. Under Romans, this was one of the main cities in Thrace (known as Diocletianopolis or Augusta). Hisarya is notable for the impressive remains from the Roman period and for its numerous hot springs.



For further details and registration, please visit
<http://parallel.bas.bg/Conferences/MoL2021/>



BIOMATH



European
TOPology
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Action CA 17139



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