

Charles University, Heidelberg University and Sorbonne University
are organizing doctoral school

Modeling of Biomaterials

February 10 - 16, 2020, Kácov, Czech Republic

The investigation of the role of mechanical and mechano-chemical interactions in cellular processes and tissue development is a rapidly growing research field in life sciences and biomedical engineering. A quantitative understanding of this important aspect of biological systems requires development of adequate mathematical models to simulate the evolution of these systems in space and time. This calls for a multidisciplinary approach since expertise in various fields is absolutely necessary.

In order to achieve the multidisciplinary approach, researchers, especially young researchers working in different fields, must be given a chance to meet and understand the challenges and questions arising in the specialized fields. Such a crucial prerequisite for pursuing an efficient collaboration across the fields is therefore the main objective of the "Modeling of Biomaterials" doctoral school.

Six main speakers will deliver a series of lectures on a range of relevant issues in the modeling of biomaterials. This is a very broad field and the school aims to provide various possible views. Furthermore, a few special clinical guest speakers will extend the program by discussing some clinical aspects of modeling and the current needs from a clinician viewpoint.

Ample time within the school will be allocated for the promotion of informal scientific discussions among the participants to encourage future collaborations.

Invited speakers

Valentina Balbi (University of Limerick, Ireland)

Abdul Barakat (École Polytechnique, France)

Oded Farago (Ben Gurion University, Israel)

Václav Klika (Czech Technical University, Czech Republic)

David Nordsletten (University of Michigan, United States of America)

Charisios Tsiairis (Friedrich Miescher Institute for Biomedical Research, Switzerland)

Special guest

Jan Janoušek (Children's Heart Center, University hospital Prague-Motol)

Organisers

Radomír Chabiniok (Inria Saclay Ile-de-France and King's College London), Josef Málek (Charles University), Anna Marciniak-Czochra (Heidelberg University), Michal Pavelka (Charles University), Benoît Perthame (Sorbonne University), Vít Průša (Charles University)

www.karlin.mff.cuni.cz/biomaterials
biomaterials@karlin.mff.cuni.cz