

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](http://www.karlin.mff.cuni.cz/biomaterials)  
[biomaterials@karlin.mff.cuni.cz](mailto:biomaterials@karlin.mff.cuni.cz)