

XXIII INTERNATIONAL SCHOOL OF PURE AND APPLIED BIOPHYSICS

(<http://tiny.cc/BiophysicSchool-2019>)



Venice (Italy) - Palazzo Franchetti
4-8 February 2019

Emerging Tools in Biomechanics: from tissues down to single molecules

Mechanical properties have a key role in biological processes. At the interface between biology, physics, and mechanics the school will survey recent advances and the emerging techniques able to probe mechanical properties of biological material. Combining lectures, application talks and hands-on training, the school will introduce the topic at different length scales, from molecular and sub-cellular approaches (Atomic Force Microscopy, Acoustic Force Spectroscopy), to single cells (Brillouin microspectroscopy, MEMS) also extending towards multicellular organization and tissues (nanoindentation, ultrasonic micro-elastography). Of note, in addition to theoretical lectures, world leading companies will provide access to unique state of the art instrumentation to perform practical activities during the school.

ORGANIZING COMMITTEE:

Silvia CAPONI CNR Perugia (Italy)
Mauro DALLA SERRA CNR Trento (Italy)
Peter GLYNNE-JONES U.Southampton (UK)
Massimo VASSALLI CNR Genoa (Italy)

INVITED TEACHERS:

Elisa CABERLOTTO Paris (France)
Claudio CANALE Genoa (Italy)
Marco CAPITANIO Florence (Italy)
Luca CESERACCIU Genoa (Italy)
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Małgorzata LEKKA Krakow (Poland)
Maurizio MATTARELLI Perugia (Italy)
Francesca PALOMBO Exeter (UK)
Giancarlo RUOCCO Rome (Italy)
Tomaso ZAMBELLI Zurich (Switzerland)

SUPPORT FOR PARTICIPANTS:

The school is supported by institutional sponsors, providing up to 20 bursaries for selected students

HANDS-ON EXPERIMENTAL ACTIVITIES ON STATE-OF-THE ART INSTRUMENTATION WILL BE PROVIDED BY INTERNATIONAL LEADING COMPANIES

 **LUMICKS**
Capture Molecular Interactions

 **OPTICS II**

 **OLYMPUS**

 **KLA Tencor**

 **nanosurf**

DIRECTOR OF THE SCHOOL:

Giorgio GIACOMETTI IVSLA & Uni. Padua (Italy)