

MOLECULE
IN (ter) ACTION

VENICE - Palazzo Franchetti



venice2024.ibf.cnr.it

The aim of this course is to delve into the structure, conformation, dynamics, and interactions of biomolecules in diverse environments, from solutions to living cells and biological tissues. We will explore a range of experimental techniques for tracking both in vitro and in vivo biochemical reactions and other processes crucial to life.

Confirmed Speakers:

Alberto Diaspro	Opening Lecture
Raffaele Mezzenga	Liquid-Liquid Phase Separation vs Liquid-Liquid Crystalline Phase Separation: Analogies and Differences
Hans Ulrich Dodt	15 years of Ultramicroscopy - from mice to man
Giorgio Schirò	Probing protein structural dynamics by time-resolved X-ray techniques
Francesco Cardarelli	Spatiotemporal image correlation spectroscopy to study dynamic molecular processes at the nanoscale
Peter Hinterdorfer	Avidity Amplification of Spike Variants of Concern explored at Single-Molecule Resolution
Don Lamb	FRET: From single-molecules to cells
Daniel Aili	Real-time biosensing for biomolecular interaction analysis
Valerie Belle	How to explore protein dynamics and interactions using Electron Paramagnetic Resonance spectroscopy
Debora Berti	Leveraging biomolecular interactions from nano to meso-scale to build hybrid systems
Chiara Stringari	Label-free multimodal multiphoton microscopy of living tissues
Paolo Swuec	Imaging what's smaller than light: the Electron Microscopy toolkit
Peter Hinterdorfer	Avidity Amplification of Spike Variants of Concern explored at Single-Molecule Resolution
Claudio Canale	AFM assisted STED microscopy. Looking at the dark side.
Daniele Martella	Artificial muscles powered by light: from microrobotics to biological applications
Francesca Pennacchietti	Photoswitchable fluorescent probe in live cell nanoscopy
Leonardo Sacconi	Advanced Structure-Function Imaging of Cardiac Trans-Scar Electrical Conduction

Scientific Coordinators: Luca Lanzanò, Valeria Vetri

Scientific Committee: Sara Anselmo, Claudio Canale, Paolo Canepa, Delia Francesca Chillura Martino, Irene Costantini, Giuseppe Sancataldo

Web-master: Francesco Impallari