ICTP SAIFR | International Centre for Theoretical Physics
South American Institute for Fundamental Research

Campus of IFT-UNESP – São Paulo, Brazil

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April 14 – 19, 2025

SCHOOL ON BIOLOGICAL PHYSICS AND BIOMOLECULAR SIMULATIONS IN THE MACHINE LEARNING ERA

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The re-emergence of Machine Learning (ML) in the last decade has started to revolutionize the way we think about science, technology, and even our everyday lives. ML has rapidly become a significant part of research across all scientific areas, including the physical sciences. This school attempts to capture the recent excitement about ML in general and for biophysical and biomolecular systems in particular, addressing participants with various backgrounds ranging from biology or biotechnology to physics.

The school's purpose is threefold: a) to provide a theoretical foundation from the physicists' perspective, b) to cross-pollinate different theoretical, experimental, and computational approaches, and c) to develop an overarching perspective that would tie together the various phenomena from biomolecular simulation and electrostatic interactions on the molecular scale to collective behavior of macroscopic biological entities in a unified approach within an ML framework.

This school will be preceded by the II Brazilian Workshop on Soft Matter from April 7–11.

There is no registration fee and limited funds are available for travel and local expenses.

Application deadline: February 1, 2025

Online application and more information:
ictp-saifr.org/sbpbs2025

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