



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

**Campus of IFT-UNESP – São Paulo, Brazil**

**RALF EICHHORN**  
Nordita, Sweden



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UFAL, Brazil



**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/sbps2025](http://ictp-saifr.org/sbps2025)**



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