



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

Campus of IFT-UNESP – São Paulo, Brazil

March 24 – 30, 2025

**SCHOOL AND
 WORKSHOP ON THE
 PHYSICS OF LIFE**



OLGA DUDKO
 University of California
 at San Diego, USA



GABRIEL B. MINDLIN
 Universidad de Buenos Aires,
 Argentina



TOMÁS S. GRIGERA
 Universidad Nacional
 de La Plata, Argentina



FARUCK MORCOS
 University of Texas at Dallas, USA

Through minicourses and research seminars and discussion sessions, this school and workshop will explore the fundamental physical principles that govern living systems across scales, from macromolecules to birds. Minicourse topics during the school will include: Molecular and Cell Biophysics, Neurophysics, Dynamical Systems and Collective Motion, and Machine Learning Tools for Biological Physics.

The school is designed for graduate students interested in the intersection of physics and life sciences from a physics perspective. Leading experts will deliver in-depth lectures on cutting-edge experiments, theoretical frameworks, and emerging trends in the field.

Immediately following the school will be a 3-day workshop with invited seminars by researchers from Latin America, as well as discussion sessions addressing how to build a network of biological physicists in the region.

Applicants are invited to submit abstracts for poster presentations during both the school and workshop.

There is no registration fee. Limited funding is available to support travel and local expenses for school participants and local expenses for workshop participants.

**Application deadline (school):
 January 11, 2025**

**Registration deadline (workshop):
 February 17, 2025**

**More information:
ictp-saifr.org/swpl2025**



ORGANIZERS

- William Bialek (Princeton University)
- Silvina Ponce Dawson (Univ. de Buenos Aires)
- Roberto Kraenkel (UNESP)
- José Onuchic (Rice University)
- Marcus Aguiar (UNICAMP)
- Antonio José Costa-Filho (USP)
- Vitor Barbanti Pereira Leite (UNESP)
- Danilo B. Liarte (ICTP-SAIFR & UNESP)
- Pablo de Castro (ICTP-SAIFR & UNESP)

ICTP-SAIFR STEERING COMMITTEE

- Atish Dabholkar (chair, ICTP director)
- Pasqual Barretti (UNESP rector)
- Márcio de Castro Silva Filho (FAPESP scientific director)
- Hugo Aguilaniu (Serrapilheira president-director)
- Helena Nader (Brazilian Academy of Sciences president)
- Juan Maldacena (South American representative)

ICTP-SAIFR SCIENTIFIC COUNCIL

- Carlos Brito Cruz (chair, Elsevier)
- Rosario Fazio (ICTP)
- Ricardo Matheus (IFT-UNESP)
- William Bialek (Princeton Univ.)
- Eduardo Fradkin (Univ. of Illinois)
- Gabriela Gonzalez (Louisiana State Univ.)
- André de Gouvêa (Northwestern Univ.)
- Michael Green (Cambridge Univ.)
- Karen Hallberg (Balseiro Inst.)
- Luis Lehner (Perimeter Inst.)

ICTP-SAIFR STAFF

- Nathan Berkovits (Director)
- Rogério Rosenfeld (Vice-Director)
- Pedro Vieira (Perimeter-SAIFR Coordinator)
- Elisa Pomari (Activities Coordinator)
- Humberto Neto (Executive Secretary)
- Luiz Eduardo Moreira (Computer Systems Manager)
- Lilia Faria (Financial Manager)
- Daniel Almeida (Visitors Coordinator)
- Marrey Peres, Jr. (Operations Manager)
- Thiago Codinhoto (Technical Assistant)
- Felipe Saldanha (Communications Coordinator)