

XV Giambiagi Winter School

Information processing in Biological Systems:
From cells to equations, and back.

Buenos Aires, Argentina

July 15-19, 2013

<http://giambiagi.df.uba.ar/>

Important Deadlines

April 30: Registration for students requesting financial support

May 31 : Registration for students not requesting financial support

Scope of the School

Recent advances in our understanding of biological systems have largely benefited from interdisciplinary approaches. Physics has played a fundamental role in this dialogue between disciplines, providing quantitative methods that allow the precise formulation and testing of theories.

The central theme of the meeting is information processing in biological systems. The meeting includes a one week school of several mini-courses, and a short workshop where young participants will be able to interact among themselves and with the lecturers. Courses will cover different key aspects of the proposed theme, such as gene regulatory networks, dynamical aspects of signaling pathways, molecular noise, the quantification of information in cellular processes and the physics of the cell. The school will provide students with an accessible and contemporary view of the most interesting questions in the field, and introduce them to some of the experimental and theoretical approaches used to answer these questions, and the tools used to comprehend the complex dynamics of cellular behavior. In summary, the school will bring students closer to these themes and to the tools necessary to tackle a variety of questions of great interest.

Confirmed short courses

Physics of the cell. Rob Phillips (Caltech)

Small regulatory networks and motifs. James Ferrell (Stanford)

Noise in gene regulatory networks. Ivo Sbalzarini (MPI-CBG)

Transition to multicellularity. Ray Goldstein (Cambridge)

Information processing in tissues. Marcos González-Gaitán (Geneva)

Organizing committee

Ariel Chernomoretz, Alejandro Colman-Lerner, Hernán E. Grecco, Luis G. Morelli, Alejandra C. Ventura

Financial Support and registration fees

There are no registration fees to attend the School. Partial financial support will be available for a limited number of students covering transportation and lodging.

More information

For information, please visit: <http://www.giambiagi.df.uba.ar>

or contact: giambiagi@df.uba.ar