



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

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

**OCTOBER 25-27, 2021**

## ICTP-SAIFR SCHOOL ON APPLICATIONS OF NONLINEAR SYSTEMS TO SOCIO-ECONOMIC COMPLEXITY

**Application deadline: Aug. 22, 2021**

**Online application and more information:**  
[www.ictp-saifr.org/sociophys20](http://www.ictp-saifr.org/sociophys20)

Complex socio-economic phenomena, such as financial crises, epidemics, crime propagation and opinion formation can be studied through complexity concepts, mathematical modelling and simulations. The school aims to provide interdisciplinary training to PhD students and postdoctoral researchers. Lectures will cover theoretical and computational aspects of complex systems and applications to social research.

### Lecturers

**Pablo Balenzuela (U. de Buenos Aires, Argentina):** *Multi-agent models in complex networks*

**Marcelo Kuperman (I. Balseiro-Bariloche, Argentina):** *Introduction to evolutionary game theory*

**Cristina Masoller (U. Politècnica de Catalunya, Spain):** *Time series analysis*

**Viktoriya Semeshenko (U. de Buenos Aires, Argentina):** *Economic and financial networks: models and analysis*

The application of techniques of statistical (and other areas of) physics to understand the dynamics of social systems is currently one of the hottest topics in the study of complex systems. The so-called Sociophysics has attracted the attention of a large number of scientists from areas such as physics, computer science, and mathematics, as well as the humanities. This meeting will bring together physicists and other scientists from all over the world to focus on open issues in social modelling and to identify the new directions in which this interdisciplinary field is evolving.

### Invited Speakers

**Alex Arenas** (U. Rovira i Virgili, Spain)

**Pablo Balenzuela** (U. de Buenos Aires, Argentina)

**Guillaume Deffuant\*** (Lisc, France)

**Silvio Ferreira** (UFV, Brazil)

**Jose Fernando Fontanari** (IFSC/USP, Brazil)

**Serge Galam** (SciPol, France)

**José Roberto Iglesias** (UNILA, Brazil)

**Marcelo Kuperman** (CAB, Bariloche, Argentina)

**Fabiana Laguna** (CAB, Bariloche, Argentina)

**Francisco WS Lima** (UFPI, Brazil)

**Vittorio Loreto\*** (Sapienza U. di Roma, Italy)

**Alexandre Martinez** (USP-RP, Brazil)

**Hernán Makse** (City College, CUNY, USA)

**Maxi San Miguel** (IFSC, UIB-CSIC, Spain)

**Mauro Mobilia\*** (U. of Leeds, UK)

**Yamir Moreno\*** (U. of Zaragoza, Spain)

**Andrea Rapisarda** (U. of Catania, Italy)

**Fabiano Ribeiro** (UFLA, Brazil)

**Viktoriya Semeshenko** (IIEP, Argentina)

**José Soares-Andrade Jr** (UFC, Brazil)

**Katarzyna Sznajd-Weron** (Wrocław U., Poland)

**Raul Toral** (IFSC, UIB-CSIC, Spain)

**Juan Alejandro Valdivia** (U. de Chile, Chile)

\*to be confirmed

**OCTOBER 28-30, 2021**

## ICTP-SAIFR WORKSHOP ON SOCIOPHYSICS: SOCIAL PHENOMENA FROM A PHYSICS PERSPECTIVE

**Registration deadline: August 22, 2021**

**Online application and more information:**  
[www.ictp-saifr.org/wsociophys20](http://www.ictp-saifr.org/wsociophys20)

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



IFT - UNESP

### SCHOOL ORGANIZERS

**Pablo Balenzuela (U. de Buenos Aires, Argentina)**

**Hilda Cerdeira (IFT-UNESP, Brazil)**

**Cristina Masoller (U. Politècnica de Catalunya, Spain)**

### WORKSHOP ORGANIZERS

**Celia Anteneodo (PUC-Rio, Brazil)**

**Marcos Gomes Eleuterio da Luz (UFPR, Brazil)**

**Nuno Crokidakis (UFF, Brazil)**

### ICTP-SAIFR STEERING COMMITTEE

Carlos Brito Cruz - FAPESP scientific director

Atish Dabholkar - ICTP director

Luiz Davidovich - Brazil Acad. Science president

Peter Goddard - Search Committee chair

Juan Maldacena - Representing South America

Fernando Quevedo - ICTP former director

Sandro Valentini - UNESP rector

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Gabriel Mindlin - U. de Buenos Aires

### ICTP-SAIFR STAFF

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Humberto Neto - Executive Secretary

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Ana Luiza Serio - Outreach Coordinator

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