

## **First Joint Meeting Brazil-Italy in Mathematics – Special Session #14 Stochastic processes in random environment and applications**

Random structures typically consist of many mutually interacting random components. Even if the interaction is local and simple, the collective behavior of a large number of degrees of freedom may show intriguing phenomena like anomalous fluctuations, phase transitions, complex time evolutions and metastability. Systems of this type play an important role in statistical physics, biology and theoretical computer science. Moreover, it is widely recognized that a deep mathematical understanding of these systems is crucial even for concrete applications.

The aim of this session is to present some classic results and new challenges on this topics both from the theoretical and applied points of view.

We expect to address a potential audience ranging from experts of the area to PhD students. The main topics are: interacting particle systems, Markov processes, disordered systems, statistical physics, stochastic models in biology and computer science.

### **Timetable:**

Time/Day	29/08	30/08
09:00-10:00	I. Ben-Ari	A. Bianchi
10:00-11:00	S. Popov	C. Gallesco
11:00-12:00	D. Bertacchi	E. Andjel
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17:30-18:30	F. Polito	-----
18:30-19:30	H. Matzinger	-----