



The Abdus Salam
**International Centre
for Theoretical Physics**

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European Research Council
Established by the European Commission



School on Algebraic, Geometric and Probabilistic Aspect of Dynamical Systems and Control Theory

4 - 15 July 2016

Miramare, Trieste, Italy

The Abdus Salam International Centre for Theoretical Physics (ICTP), in collaboration with International School for Advanced Studies - Trieste (SISSA), is organizing a **School on Algebraic, Geometric and Probabilistic Aspect of Dynamical Systems and Control Theory**, which will be held at ICTP, Trieste, Italy, from 4 to 15 July 2016.

This project has received funding from the European Research Council (ERC) under the European Union's Horizon 2020 research and innovation programme under grant agreement No 647133 (ICHAOS).

Analyzing the interplay between different sub areas of mathematics is one of the fascinating goals of researchers in this area. The ideas from probability theory and algebra are ubiquitous in ergodic theory of dynamical systems. The deep works of many dynamicists had proved the power of ergodic theory methods to solve celebrated problems in number theory and algebra. The aim of this workshop is to gather some of the experts of these areas and discuss recent developments with mostly young researchers.

The workshop will consist of long courses, invited and contributed talks, as well as an open problem session and a poster session. The idea is to have sufficient time to have discussion sections with students and post-docs and help young researchers to define new projects.

MINICOURSES

- Counting Techniques (*S. Filip*)
- Introduction to smooth group actions and rigidity (*F. Hertz*)
- Symbolic dynamics for low-dimensional systems with positive entropy (*Y. Lima*)
- Dynamics of group actions on homogeneous spaces (*A. Mohammadi*)
- Spectrum in parabolic dynamics (*B. Solomyak*)
- Brownian motion, evolving geometries and entropy formulas (*A. Thalmaier*)

PARTICIPATION

Scientists and students from all countries which are members of the United Nations, UNESCO or IAEA may attend the School. As it will be conducted in English, participants should have an adequate working knowledge of that language. Although the main purpose of the Centre is to help research workers from developing countries, through a programme of training activities within a framework of international cooperation, a limited number of students and post-doctoral scientists from developed countries are also welcome to attend.

As a rule, travel and subsistence expenses of the participants should be borne by the home institution. Every effort should be made by candidates to secure support for their fare (or at least half-fare). However, limited funds are available for some participants. Priority for funding will be given to candidates who are nationals of, and working in, a developing country. There is no registration fee.

HOW TO APPLY FOR PARTICIPATION

The online application form can be accessed on the activity's website:

<http://indico.ictp.it/event/7647/>

Once in the website, comprehensive instructions will guide you step-by-step, on how to fill out and submit the application form.

ACTIVITY SECRETARIAT:

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DEADLINE:

15 MARCH 2016