

23 May - 3 June 2016 (ICTP, Miramare, Trieste, Italy)

The themes that the Advanced School and Workshop will focus are the very cutting edge of research in Geometry and Topology and its connections wih Group Theory. The motivation for this advanced school is to expose students, postdocs and researchers to various key roles that geometric group theory has played in recent advances in low-dimensional topology and geometry. These include (but not limited to) the role of virtually special groups, representations of Kleinian groups in SL(2,C) and generalizations (e.g. Higher Teichmuller Theory), the Mapping Class Group and its recent role in low dimensional geometry and topology and group theoretic connections with Heegaard Floer theory through leftorderability.

TOPICS COVERED:

Virtually Special Groups and Cube Complexes Geometry and Topology of Hyperbolic 3-Manifolds, the Mapping Class Group and Curve Complex Higher Teichmuller Theory and Geometric Structures Left Orderability, L-spaces and Applications to 3-Manifolds Dynamics on Teichmuller Space and Moduli Space

The aim of the School and Workshop is to expose students, postdocs and researchers to these topics, as well as other recent work that impacts on both of these important areas.

Grants:

A limited number of grants are available to support the travel and living expenses of selected participants, with priority given to participants working in a developing country and who are at the early stages of their career.





ORGANIZERS:

Michel BOILEAU (Aix Marseille Univ., France)

Richard CANARY (Univ. of Michigan, U.S.A.)

Bruno MARTELLI (Universita' di Pisa, Italy)

Maryam MIRZAKHANI (Stanford University, U.S.A.)

Alan REID (University of Texas, Austin, U.S.A.)

Local Organizer:

Fernando RODRIGUEZ VILLEGAS (ICTP, Math Section, Trieste, Italy)

LECTURERS:

Jeff BROCK (Brown University, U.S.A.)

Josh GREENE (Boston College, U.S.A.)

Pascal HUBERT (Univ. of Marseille, France)

Fanny KASSEL (Université Lille 1, France)

Micah SAGEEV (Technion, Haifa, Israel)

SPEAKERS:

Ian AGOL (*) (U.C. Berkeley, U.S.A.) **Steven BOYER** (U.Q.A.M., Canada) **Kenneth BROMBERG** (Univ. of Utah, U.S.A.)

Jeff DANCIGER (U.T.Austin, U.S.A.) **Moon DUCHIN** (Tufts Univ., U.S.A.) Alex ESKIN

(Univ. of Chicago, U.S.A.) Vincent GUIRADEL (Rennes 1, France) Peter HAISSINSKY

(Univ. Paul Sabatier, Toulouse, France) **Ursula HAMENSTADT**

(Universität Bonn, Germany) François LABOURIE(Univ. Nice, France)

Jason MANNING (Cornell Univ., U.S.A.)

TO REQUEST PARTICIPATION:

Online Application Form can be accessed at the following activity website: http://indico.ictp.it/event/7646/

> Activity Secretariat: E-mail: smr2864@ictp.it Telephone: +39-040-2240305 Telefax: +39-040-224163 ICTP Home Page: <u>http://www.ictp.it</u>

DEADLINE to apply: 12 February 2016

Vlad MARKOVIC (CalTech, U.S.A.)

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(ET, Zurich, Switzerland)

Corinna ULCIGRAI (Univ. of Bristol, UK)

Anna WEINHARD

(Universität Heidelberg, Germany)

TENGREN ZHANG

(Cal. Tech. Univ. U.S.A.)

(*) to be confirmed

