

# PROGRAM "TROPICAL GEOMETRY AND TOPOLOGY"

JULY 1 – SEPTEMBER 30, 2013

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## 1. OVERVIEW

The program is devoted to geometric and topological aspects of tropical geometry. Among the topics of the program, one can mention, for example, the following ones:

- tropical curves and knot theory,
- patchworking of immersed planar and spatial curves,
- tropical modifications, regularity and realizability,
- symplectic structures through tropical geometry,
- moduli spaces of covers and their tropicalizations.

The list of confirmed participants includes

- Benoît Bertrand (Toulouse/Tarbes)
- Florian Block (Berkeley)
- Erwan Brugallé (Paris)
- Lucia Caporaso (Roma)
- Sergey Finashin (Ankara)
- Sergei Galkin (Wien)
- Ludmil Katzarkov (Wien)
- Conan Leung (Hong Kong)
- Ernesto Lupercio (Mexico City)
- Diane Maclagan (Warwick)
- Jacob Mostovoy (Mexico City)
- Michael Polyak (Haifa)
- Johannes Rau (Saarbrücken)
- Kristin Shaw (Toronto)
- Eugenio Shustin (Tel Aviv)
- Bernd Sturmfels (Berkeley)
- Oleg Viro (Stony Brook)
- Ilia Zharkov (Manhattan, KS)

These people will stay at the MPIM for periods from two weeks to several months.

## 2. ACTIVITIES

There will be four mini-courses designated to Ph.D. students, post-docs, and participants of the program:

- by Erwan Brugallé on calculus of tropical curves (in July),
- by Sergei Galkin on cluster transformations in the context of Fano geometry,
- by Conan Leung on symplectic side of tropical geometry and SYZ (in September),

- by Oleg Viro on topology of real algebraic and tropical varieties (in July and August)

These mini-courses will be complemented by a regular program seminar.

The program conference will take place from September 2 to September 6, 2013. There are already 25 confirmed participants of the conference.