

## Workshop on INFINITE MONSTER GROUPS

December 14 - December 18, 2011

Organizers: Goulnara Arzhantseva, Mark Sapir

**Tuesday, December 13, 2011: Erwin Schrödinger Lecture:**

**17:00 – 18:00: Martin BRIDSON**

*Finitely presented groups: geometry, decision problems, finite quotients, and monsters*

**18:00: Reception (in the spirit of Advent)**

**Wednesday, December 14, 2011**

**09:00 – 10:00: Martin BRIDSON**

*Decision problems for discrete and profinite groups*

**10:00 – 10:20: coffee break**

**10:20 – 11:20: Denis OSIN**

*Introductory talk: Asymptotic cones of finitely generated groups*

**11:30 – 12:30: Yves CORNULIER**

*Monster polycyclic groups?*

**12:30 – 15:00: lunch break**

**15:00 – 16:00: Rémi COULON**

*Growth and order of automorphisms of free groups and free Burnside groups*

**16:15 – 17:15: Thomas DELZANT**

*Kähler groups, real hyperbolic spaces and the Cremona group*

**Thursday, December 15, 2011**

**09:00 – 10:00: Alexey MURANOV**

*Boundedly generated groups and small-cancellation method*

**10:00 – 10:20: coffee break**

**10:20 – 11:20: Arye JUHASZ**

*The Combinatorics of Engel Words*

**11:20 – 13:30: lunch break**

**13:30 – 14:30: Andreas THOM**

*Introductory talk: von Neumann algebras and  $l_2$ -invariants*

**14:45 – 15:45: Viktor SCHROEDER**

*Moebius structure on the boundary of hyperbolic groups*

**16:00 – 17:00: Miklos ABERT**

*On Invariant Random Subgroups and Benjamini-Schramm convergence*

**Friday, December 16, 2011**

**09:00 – 10:00: Olga KHARLAMPOVICH**

*Definable subsets in a free group (joint with A. Myasnikov)*

**10:00 – 10:20:** coffee break

**10:20 – 11:20: Alexei MIASNIKOV**

*Dehn Monsters*

**11:30 – 12:30: Andreas THOM**

*Determinants, Entropy and  $l_2$ -Torsion*

**Free Afternoon**

**Saturday, December 17, 2011**

**09:00 – 10:00: Ashot MINASYAN**

*Residual finiteness of outer automorphism groups*

**10:00 – 10:20:** coffee break

**10:20 – 11:20: Alexander OLSHANSKII**

*Some monster actions of free and hyperbolic groups*

**11:30 – 12:30: Jan SPAKULA**

*Coarse amenability and coarse embeddings*

**12:30 – 14:30:** lunch break

**14:30 – 15:30: Shahar MOZES**

*A locally compact simple group with no lattices*

**15:45 – 16:45: Ralph STREBEL**

*Sigma-invariants and their applications*

**17:00 – 18:00: Problem Session**

**19:30: Dinner at Heuriger Feuerwehr Wagner - 1190 Wien, Grinzinger Strasse 53**

**Sunday, December 18, 2011**

**09:00 – 10:00: Valerio CAPRARO**

*A construction of groups preserving hyperlinearity*

**10:00 – 10:20:** coffee break

**10:20 – 11:20: Bertrand RÉMY**

*Simple and non-simple groups acting on buildings, overview and open questions*

**11:30 – 12:30: Denis OSIN**

*Groups with hyperbolically embedded subgroups*

**12:30 – 14:30:** lunch break

**14:30 – 15:30: Jacek SWIATKOWSKI**

*A degree of topological complexity for Gromov boundaries of hyperbolic groups*

**15:45 – 16:45: Pavel ZALESSKII**

*Profinite Topology, Goodness and mod- $p$  Schur multiplier*

**17:00 – 18:00: Jesse D. PETERSON**

*$W^*$ -Superrigidity*

**All lectures take place in the ESI Boltzmann Lecture Hall**