Groups, graphs and stochastic processes BIRS, Banff, Canada June 20-24, 2011

## Monday

8:45 Brenda Williams (intro to BIRS)
9:00 Russell Lyons: From probability to measured group theory
10:00 Coffee break (2nd floor lounge, Corbett hall)
10:30 Yuval Peres: The rate of escape for random walks on groups, and
Hilbert space embeddings

14:00 Lewis Bowen: Entropy for actions of sofic groups
15:00 Coffee break (2nd floor lounge, Corbett hall)
15:30 Yair Glasner: A probabilistic Kesten theorem and counting closed circles in graphs
16:30 Gabor Elek: Groups and graph limits

Tuesday

8:45 Gideon Amir: Liouville property and automata groups
9:45 Asaf Nachmias: Is the critical percolation probability local?
10:35 Coffee Break
11:00 Vadim Kaimanovich: Finite approximations of invariant measures

14:00 James Lee: Rate of escape and harmonic functions15:00 Coffee break15:30 Lukas Grabowski: Turing machines, graphings and the Atiyah problem

20:30 Problem session

Wednesday

8:45 Wolfgang Woess: On the spectrum of lamplighter random walks and percolation clusters

9:35 Tatiana Smirnova-Nagnibeda: Abelian sandpile model on random weak limits and self-similar goups

10:25 Coffee break

11:00 Gabor Lippner: Nodal domains in graphs

11:35 Viktor Harangi: Low moments are sofic

Thursday

8:45 Anders Karlsson: Spanning forests, heat kernels, and Epstein zeta values

9:45 Laszlo Babai: Asymptotic characterization of finite vartex-transitive graphs with bounded Hadwiger number via rooted limits 10:35 Coffee Break

11:00 Laurent Saloff-Coste: Random walks on groups with low moment condition

14:00 Jeremie Brieussel: Return probability on groups in the range exp(-n^\beta).

14:45 Coffee break

15:15 Joel Friedman: Fancy linear algebra and the Hanna Neumann conjecture

20:30 Igor Mineev: Groups, graphs and the Hanna Neumann conjecture

Firday

8:45 Balazs Szegedy: Higher-order Fourier analysis

9:45 Robert Young: Pants decompositions of random surfaces 10:35 Coffee break

11:00 Lorenz Gilch: Branching random walks on free products of groups

11:35 Adam Timar: Approximating Cayley diagrams versus Cayley graphs