

RYERSON UNIVERSITY
DEPARTMENT OF MATHEMATICS
GRAPHS AT RYERSON (G@R) SEMINAR

Maksim Mironov

Moscow Institute of Physics and Technology

Date: Tuesday, April 25, 2017

Time: noon

Location: ENG 210

**On Mixing in Pairwise Markov Random
Fields with Application to Social Networks**

Abstract:

We consider pairwise Markov random fields which have a number of important applications in statistical physics, image processing and machine learning such as Ising model and labeling problem to name a couple. Our own motivation comes from the need to produce synthetic models for social networks with attributes. First, we give conditions for rapid mixing of the associated Glauber dynamics and consider interesting particular cases. Then, for pairwise Markov random fields with submodular energy functions we construct monotone perfect simulation.

ALL FACULTY, STAFF, STUDENTS AND GUESTS ARE WELCOME TO ATTEND