

Geometry, Physics, and Representation Theory
Northeastern University

Vadim Gorin
MIT.

Thursday, October 20, 2.50-3.50 pm, Lake Hall 509

**Integrable two-dimensional stochastic systems and their
asymptotics**

Abstract.

I will speak about a class of probabilistic systems that can be analyzed by essentially algebraic methods. The class includes stepped surfaces, six-vertex model ("square ice"), spectra of random matrices, TASEP-like interacting particle systems, directed polymers in random media, etc. We will discuss the asymptotic behavior of these systems, which is governed by universal limiting objects such as the Gaussian Free Field and Tracy-Widom distributions.