

Special Lecture

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Integrable Stochastic Particle Systems and Macdonald Processes

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Date & Time: Thu, 04/25/2013 - 14:00 - 15:00

Location: S-101

Video Link:

<http://video.ias.edu/speciallecture/1213/0425-AlexeiBorodin>

A large class of one dimensional stochastic particle systems are predicted to share the same universal long-time/large-scale behavior. By studying certain integrable models within this (Kardar-Parisi-Zhang) universality class we access what should be universal statistics and phenomena. In this talk we focus on two different integrable exclusion processes: q-TASEP and ASEP. Using them as a prompt, we will describe the theory of Macdonald processes which unites integrability in various areas of probability including directed polymers, interacting particle systems, growth processes, and random matrix theory.

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terms:

- [School of Mathematics](#)