

abstract

Special Lecture
Topic:

Speaker:

Affiliation:

Date:

Time/Room:

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.