

Temple/Penn Probability Seminar

Bethe Ansatz and interacting particle systems

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Tuesday, October 6, 2015
2:30-3:30pm, David Rittenhouse Lab 3C8 (U Penn)

I will describe recent advances in bringing a circle of ideas and techniques around Bethe Ansatz and Yang-Baxter relation under the probabilistic roof, which provides new examples of stochastic interacting particle systems, and techniques to solve them.

In particular, I plan to discuss a new particle dynamics in continuous inhomogeneous medium with features resembling traffic models, as well as queuing systems. This system has phase transitions (discontinuities in the limit shape) and Tracy-Widom fluctuations (even at the point of the phase transition).