

AVVISO DI SEMINARIO

Giovedì 12 febbraio, alle ore 12:30, in aula G, Nicos Georgiou, Professor of Probability Theory and Applications, University of Sussex, School of Mathematical and Physical Sciences, terrà un seminario dal titolo

Hydrodynamic limit for a TASEP with space-time discontinuous jump rates

Abstract: The totally asymmetric simple exclusion process is a conservative particle system that has been studied through various mathematical lenses.

Results for this particle system include hydrodynamic limits, invariant distributions, fluctuations and large deviations. It has connections to the celebrated KPZ class via a coupling with the corner growth model and last passage percolation; it is considered one of the exactly solvable models of the KPZ class.

In this talk we will discuss a (non-exactly solvable) generalisation of TASEP in which the rates that govern the particle jumps depend on the location of the particle and the time that we are observing the process. The rates come from a background function that can be discontinuous in space and time.

We will discuss the hydrodynamic limit of this version of TASEP (for particle current and density), which will be the solution to certain discontinuous PDEs.

La proponente

Enrica Pirozzi