

Seminar

Fluctuating hydrodynamics for a driven tracer

Rahul Dandekar

CEA-Paris, Saclay

I will talk about using the mapping between the symmetric simple exclusion process (SEP) and the zero-range process (ZRP) at the fluctuating hydrodynamic level to study the dynamics of a driven tracer particle in the SEP. This mapping transforms a moving particle into a stationary bond at the origin. Using fluctuating hydrodynamics in the form of Macroscopic Fluctuation Theory, we obtain the cumulant generating function of the displacement of the driven tracer in the high-density (close to full occupancy) limit of the SEP.

Friday, Sep 2nd 2022

11:30 AM (Tea/Coffee at 11:15 AM)

Auditorium, TIFR-H