

Seminar

Higher-order correlators in the Random Average Process

Rahul Sunil Dandekar

IMSc, Chennai

The Random Average Process (RAP) is a simple model of single file motion on a 1D line, where at each time-step, particles move by a random fraction of the distance to the next particle. In this talk, I describe our results for the RAP studied in terms of the distribution of gaps between the particles. We show how higher-order two-point cumulants $\langle m_i^m m_j^n \rangle$ can be expressed in terms of the lowest order two-point cumulant, the site-site correlation function $\langle m_i m_j \rangle$. This can be extended to the multi-site cumulants as well. This uncovers a previously unknown structure in the Random Average Process, and I shall talk about the case of the RAP with open boundaries as a concrete example where this simplification can be usefully applied.

Tuesday, Feb 12th 2019

4:00 PM (Tea/Coffee at 3:30 PM)

Auditorium, TIFR-H