

My research interest lies in probability theory, specifically stochastic systems of large or infinite sizes. Current developments have woven together Interacting Particle Systems, Stochastic PDEs, and Random Matrix Theory into interconnecting subjects. Stochastic analysis plays a pivotal role in these developments, both for interest in its intrinsic structures and applications. My research focuses on these aspects of stochastic analysis in the prescribed context, with the specific topics

- Convergence of interacting particle systems to stochastic PDEs
- Large deviations of interacting particle systems and stochastic PDEs
- Properties of random operators arising from random matrices

Texts and topics for a reading course would be discussed to match one's interest and background. A background in probability and analysis (PDEs and functional analysis) would be helpful.