Seminar Series: Probability Seminar
Date: Tuesday, March 28, 2017
Time: 3:30 – 4:20 p.m.
Location: REC 315

Speaker: Jian Song
Affiliation/Organization: University of Hong Kong

**TEMPORAL ASYMPTOTICS FOR A FRACTIONAL PARABOLIC ANDERSON MODEL**

Abstract: In this talk, some of recent developments on the parabolic Anderson model, which is described by a class of linear stochastic partial differential equations (SPDEs) with multiplicative Gaussian noise, will be reviewed. Then we consider fractional parabolic equation of the form \( \frac{\partial u}{\partial t} = -\left(\frac{\alpha}{2}\right)^{\alpha} u + u\dot{W}(t, x) \), where \( -\left(\frac{\alpha}{2}\right)^{\alpha} \) with \( \alpha \in (0,2] \) is a fractional Laplacian and \( \dot{W} \) is a Gaussian noise colored in space and time. The precise moment Lyapunov exponents of the Stratonovich solution and the Skorohod solution are obtained. The result is based on the work joint with X. Chen, Y. Hu and X. Song.