Probability Seminar

Title: Dimensional reduction for elliptic SPDE's: integrable structures and large deviations

Speaker: Oleg Zaboronski (Warwick)

Date: Wed 25th September 2019 at 2:00PM

Location: Seminar Room SCN 1.25

Abstract: I will review the phenomenon of dimensional reduction for elliptic stochastic PDE's in two and three dimensions due to hidden supersymmetry discovered by Parisi and Sourlas. I will use dimensional reduction to establish a link between matrix-valued elliptic SPDE's and determinantal point processes. I will show that the large deviations principle can be proved for a class of equations without any reference to supersymmetry. The talk is based on joint work with Roger Tribe and David Elworthy.

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