

1150-60-275

David Nualart* (nualart@ku.edu), Department of Mathematics, Kansas University, Lawrence, KS 66045. *Central limit theorems for spatial averages of the stochastic heat equation.*

In this talk we present a central limit theorem for the space averages of the solution to a the one-dimensional stochastic heat equation driven by a multiplicative space-time white noise. We obtain a rate of convergence in the total variation distance using Stein's method combined with Malliavin Calculus. We will also discuss a functional version of this central limit theorem. (Received July 11, 2019)