

Central Limit Theorem for the stochastic heat equation

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Time **Friday, May 10, 2019 at 11:00**

Place **Campus Belval, MNO, room 5A**

Consider the one-dimensional stochastic heat equation driven by a multiplicative space-time white noise. In this talk, we will show that the spacial average of the solution on an interval $[-R, R]$ converges in total variance distance to a standard normal distribution as R tends to infinity, after renormalization. We will provide an estimate for the rate of convergence and show a functional version of this central limit theorem. An extension to the multidimensional heat equation driven by a colored noise will be also discussed.