



Mathematics and CS Seminar

The invariant measure of the 2D Yang-Mills Langevin dynamic

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Host: M. Beiglböck, N. Berestycki, L. Erdős, J. Maas, F. Toninelli, E. Schertzer

In this talk I will discuss the problem of stochastic quantisation of Parisi-Wu in the context of Yang-Mills (YM) theories. I will explain how, after a suitable renormalisation, one can make sense of the YM Langevin dynamic on the 2D torus in a way that respects the underlying gauge symmetries and makes the 2D YM measure invariant for the dynamic. I will describe several steps in the proof of this result as well as some its consequences, including a decomposition of the YM measure into a Gaussian free field and a regular remainder. Based on joint work with Hao Shen.

Monday, December 18, 2023 03:45pm - 05:00pm

Mondi 2 (I01.01.008), Central Building



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