



HARVARD UNIVERSITY
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Mathematical Picture Language Seminar

Tuesday, February 15, at 9:30 a.m. EST



Zoom QR Code & Link:

<https://harvard.zoom.us/j/779283357?pwd=MitXVm1pYUIJVzZqT3lwV2pCT1ZUQT09>



Recent progress on random field Ising model

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Abstract: Random field Ising model is a canonical example to study the effect of disorder on long range order. In 70's, Imry-Ma predicted that in the presence of weak disorder, the long-range order persists at low temperatures in three dimensions and above but disappears in two dimensions. In this talk, I will review mathematical development surrounding this prediction, and I will focus on recent progress on exponential decay (joint with Jiaming Xia) and correlation length in dimension two (joint with Mateo Wirth), a new proof for long range order in dimension three (joint with Zijie Zhuang) and a recent general inequality for the Ising model (joint with Jian Song and Rongfeng Sun) which has implications for random field Ising model.

<https://mathpicture.fas.harvard.edu/seminar>