

Disorder relevance for the random field Ising chain in the large interaction limit

Thursday, February 1, 2024 5:00 PM (50 minutes)

I will present results that describe the domain-wall structure appearing in the large interaction limit for the one dimensional Ising model with centered random external field. These results match with the D. Fisher infinite disorder fixed point prediction (developed for this model in [D. Fisher, P. Le Doussand, C. Monthus, Phys. Rev. E 2001]) and represent a case in which a very strong form of disorder relevance is present. The aim is to present the results along with some ideas from the proof. Hopefully I will be able to discuss also the delicate (and widely open) issue of understanding the universality class to which Fisher's idea should apply. The talk will be mostly based on joint work with Orphée Collin and Yueyun Hu.

Presenter: GIACOMIN, Giambattista (Université Paris Cité)