

Abstract Submitted  
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**Critical dynamics of randomly layered magnets** HATEM BARGHATHI, THOMAS VOJTA, Missouri University of Science and Technology — We report the results of large-scale Monte-Carlo simulations of the critical dynamics in the randomly layered Heisenberg model. This system has recently been reported to display an exotic phase transition controlled by an infinite-randomness critical point [Phys. Rev. B 81, 144407 (2010)]. In agreement with this, we found the critical dynamics to be ultraslow. At criticality, the time autocorrelation function decays only logarithmically with time while it follows a nonuniversal power-law in the Griffiths phase. We also study the case of XY spin symmetry where the interplay between the randomness and the Kosterlitz-Thouless physics leads to even stronger disorder effects.

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