Dynamics of 2D Ising Model in linearly varying magnetic field[1]

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— We consider non-equilibrium dynamics of systems driven out of equilibrium at some finite rate near phase transitions. In previous work [1] on systems with varying temperature, scaling behaviors have been tested in great detail. Here with Monte Carlo simulations, we investigate the 2D Ising Model with linearly varying magnetic field and demonstrate the applicability of similar scaling functions when approaching the critical point. Moreover, we have found an interesting power-law scaling behavior in this system also below the critical temperature (even close to T=0). [1]Cheng-Wei Liu, Anatoli Polkovnikov, Anders W. Sandvik, arXiv:1310.6327 (2013)

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