Mathematics > Probability

Moderate Deviations for a Curie-Weiss model with dynamical external field

Anselm Reichenbachs

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In the present paper we prove moderate deviations for a Curie-Weiss model with external magnetic field generated by a dynamical system, as introduced by Dombry and Guillotin-Plantard. The results extend those already obtained in the case of a constant external field by Eichelsbacher and L\"owe. The Curie-Weiss model with dynamic external field is related to the so called dynamic Z-random walks. We also prove a moderate deviation result for the dynamic Z-random walk, completing the list of limit theorems for this object.

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