

Title: Ground states of Ising spin glass model

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Abstract: The Ising spin glass model is simple to state but notoriously difficult to study mathematically. The basic questions remain unanswered and there are conflicting predictions by physicists. I will talk about one such question---how many ground states does the model have? So far, there are virtually no results about it. I will review the existing conjectures and indicate a possible approach to obtaining a partial answer. If time permits, I may mention open problems concerning other disordered systems.