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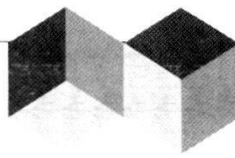
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PROBABILITY THEORY • MATHEMATICAL PHYSICS • STATISTICAL MECHANICS

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## Topics in Disordered Systems

1997. 104 pages. Softcover

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Disordered systems are statistical mechanics models in random environments. This lecture notes volume concerns the equilibrium properties of a few carefully chosen examples of disordered Ising models. The approach is that of probability theory and mathematical physics, but the subject matter is of interest also to condensed matter physicists, material scientists, applied mathematicians and theoretical computer scientists.

The two main types of systems considered are disordered ferromagnets and spin glasses. The emphasis is on questions concerning the number of ground states (at zero temperature) or the number of pure Gibbs states (at nonzero temperature). A recurring theme is that these questions are connected to interesting issues concerning percolation and related models of geometric/combinatorial probability.

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