Perspectives on **Spin Glasses**

Presenting and developing the theory of spin glasses as a prototype for complex systems, this book is a rigorous and up-to-date introduction to their properties.

The book combines a mathematical description with a physical insight of spin glass models. Topics covered include the physical origins of those models and their treatment with replica theory; mathematical properties such as correlation inequalities and their use in the thermodynamic limit theory; main exact solutions of the mean field models and their probabilistic structures; and the theory of the structural properties of the spin glass phase such as stochastic stability and the overlap identities. Finally, a detailed account is given of the recent numerical simulation results and properties, including overlap equivalence, ultrametricity, and decay of correlations. The book is ideal for mathematical physicists and probabilists working in disordered systems.

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and **Cristian Giardinà**

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