

<<量子不变式>>

图书基本信息

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内容概要

This book provides an extensive and self-contained presentation of quantum and related invariants of knots and 3-manifolds. Polynomial invariants of knots, such as the Jones and Alexander polynomials, are constructed as quantum invariants, i.e. invariants derived from representations of quantum groups and from the monodromy of solutions to the Knizhnik – Zamolodchikov equation. With the introduction of the Kontsevich invariant and the theory of Vassiliev invariants, the quantum invariants become well-organized. Quantum and perturbative invariants, the LMO invariant, and finite type invariants of 3-manifolds are discussed. The Chern – Simons field theory and the Wess – Zumino – Witten model are described as the physical background of the invariants.

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