

Announcing the second edition of

Quantum Physics

A Functional Integral Point of View

James Glimm
Courant Institute of Mathematical Sciences
New York University

Arthur Jaffe
Department of Physics
Harvard University

This classic work develops the mathematical structure of quantum theory and statistical mechanics. The central theme is the quantization of nonlinear fields. In the course of this quantization, a long-standing controversy is resolved with the definitive establishment of consistency in two and three space-time dimensions.

The second edition of **Quantum Physics** includes new chapters on correlation inequalities and cluster expansion, as well as one on the physical and mathematical requirements of nonabelian gauge theories. Also included is the remarkable proof that the ϕ^4 theories are trivial in high dimensions. Some of the proofs in Part I have been simplified and a new appendix on Hilbert space operators and function space integrals now makes the book mathematically self-contained.

Directed to an audience of mathematicians and physicists, **Quantum Physics** is designed to teach physicists about functional integrals in the context of field theory, to familiarize mathematicians with current problems in physics, and to provide specialists in other fields with an introduction to the frontiers of research.

The second edition of **Quantum Physics: A Functional Integral Approach** is available in both hardcover and softcover editions.

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