

SCIENCE/PHYSICS

Quantum field theory has been with us for over 75 years, but it is only in the last 25 that physicists and mathematicians have jointly ventured out to explore its realms beyond the reach of perturbation theory, to the great benefit of both disciplines. *Conformal Field Theory* consists of pedagogical lectures delivered at the Feza Gursey Institute, Istanbul, in the summer of 1998 on some of these non-perturbative approaches. The topics of these lectures are central to our emerging understanding of conformal field theory and its importance to both statistical mechanics and string theory. Lectures include Wess-Zumino-Novikov-Witten models, the WZNW model as a prototype of general CFT models, meromorphic CFT, Monstrous Moonshine and the classification of CFT, the non-perturbative dynamics of four-dimensional models, and a derivation of the hadronic structure functions from quantum chromodynamics. The book is suitable for advanced graduate students and researchers in theoretical particle or statistical physics as well as pure mathematicians.

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