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Sommario/riassunto	This 2002 book introduces the quantum theory of gauge fields. Emphasis is placed on four non-perturbative methods: path integrals, lattice gauge theories, the 1/N expansion, and reduced matrix models, all of which have important contemporary applications. Written as a textbook, it assumes a knowledge of quantum mechanics and elements of perturbation theory, while many relevant concepts are pedagogically introduced at a basic level in the first half of the book. The second half comprehensively covers large-N Yang-Mills theory. The book uses an approach to gauge theories based on path-dependent phase factors known as the Wilson loops, and contains problems with detailed solutions to aid understanding. Suitable for advanced graduate courses in quantum field theory, the book will also be of interest to researchers in high energy theory and condensed matter physics as a survey of recent developments in gauge theory.