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Sommario/riassunto	This book offers a new approach to the long-standing problem of high-Tc copper-oxide superconductors. It has been demonstrated that starting from a strongly correlated Hamiltonian, even within the mean-field regime, the “competing orders” revealed by experiments can be achieved using numerical calculations. In the introduction, readers will find a brief review of the high-Tc problem and the unique challenges it poses, as well as a comparatively simple numerical approach, the renormalized mean-field theory (RMFT), which provides rich results detailed in the following chapters. With an additional phase picked up by the original Hamiltonian, some behaviors of interactive fermions under an external magnetic field, which have since been experimentally observed using cold atom techniques, are also highlighted. .