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Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	From the Contents: Landau - Fermi liquid theory -- Fermi liquid with fermion condensation -- The topological phase transitions related to fermion condensate -- Appearance of fermion-condensation quantum phase transition in Fermi systems -- The superconducting state with a fermion condensate -- The dispersion law and lineshape of single-particle excitations -- Electron liquid with fermion condensate in magnetic fields.
Sommario/riassunto	This book explains modern and interesting physics in heavy-fermion (HF) compounds to graduate students and researchers in condensed matter physics. It presents a theory of heavy-fermion (HF) compounds such as HF metals, quantum spin liquids, quasicrystals and two-dimensional Fermi systems. The basic low-temperature properties and the scaling behavior of the compounds are described within the

framework of the theory of fermion condensation quantum phase transition (FCQPT). Upon reading the book, the reader finds that HF compounds with quite different microscopic nature exhibit the same non-Fermi liquid behavior, while the data collected on very different HF systems have a universal scaling behavior, and these compounds are unexpectedly uniform despite their diversity. For the reader's convenience, the analysis of compounds is carried out in the context of salient experimental results. The numerous calculations of the non-Fermi liquid behavior, thermodynamic, relaxation and transport properties, being in good agreement with experimental facts, offer the reader solid grounds to learn the theory's applications. Finally, the reader will learn that FCQPT develops unexpectedly simple, yet completely good description of HF compounds.