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	Autore	Landau, Lev D.
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	Altri autori (Persone)	Lifshits, Evgenij M.
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	Autore	Schmitt Andreas
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Nota di bibliografia	Includes bibliographical references.
Nota di contenuto	Introduction -- Superfluid Helium -- Superfluidity in Quantum Field Theory -- Relativistic Two-Fluid Formalism -- Fermionic Superfluidity: Cooper Pairing -- Meissner Effect in a Superconductor -- BCS-BEC Crossover -- Low-Energy Excitations in a Fermionic Superfluid -- Cooper-Pairing with Mismatched Fermi Momenta -- References.
Sommario/riassunto	Superfluidity – and closely related to it, superconductivity – are very general phenomena that can occur on vastly different energy scales. Their underlying theoretical mechanism of spontaneous symmetry breaking is even more general and applies to a multitude of physical systems. In these lecture notes, a pedagogical introduction to the field-theory approach to superfluidity is presented. The connection to more traditional approaches, often formulated in a different language, is carefully explained in order to provide a consistent picture that is useful for students and researchers in all fields of physics. After introducing the basic concepts, such as the two-fluid model and the Goldstone mode, selected topics of current research are addressed, such as the BCS-BEC crossover and Cooper pairing with mismatched Fermi momenta.