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Sommario/riassunto	This essential offers a compact introduction to the theory of Fermi-liquids for physics students in their main studies. It forms the basis for an understanding of theoretical solid state physics and is part of every introductory lecture on this topic. After a brief overview of the Sommerfeld model of metals, the concept of the quasiparticle is introduced. Important properties characterizing a Fermi liquid are derived in detailed calculations.The essential concludes with an overview of the microscopic theory of a Fermi-liquid. This Springer essential is a translation of the original German 1st edition essentials, Theorie der Fermiflüssigkeit in Metallen by Michael Kinza, published by Springer Fachmedien Wiesbaden GmbH, part of Springer Nature in 2018. The translation was done with the help of artificial intelligence (machine translation by the service DeepL.com). A subsequent human revision was done primarily in terms of content, so that the book will read stylistically differently from a conventional translation. Springer Nature works continuously to further the development of tools for the production of books and on the related technologies to support the authors. The content Sommerfeld theory of metals Landau's Fermi-

liquid theory Microscopic Fermi-liquid theory Limits of Fermi-liquid theory The target groups Lecturers and students of physics and other natural sciences Physicists as well as natural scientists The Author Dr. Michael Kinza received his Ph.D. in 2013 from RWTH Aachen University in the field of theoretical solid-state physics. Since 2016 he has been working as a high school teacher for the subjects of physics and mathematics.