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Sommario/riassunto	This book aims at providing an accessible, and yet comprehensive and self-contained discussion of compact stars. After a pedagogical introduction to the physics of white dwarfs, the bulk of the book is devoted to the analysis of the structure and dynamics of neutron stars. A great deal of emphasis is placed on the dynamical models underlying the description of neutron star matter at microscopic level. The analysis of these models is inherently cross-disciplinary - from nuclear and particle physics to astrophysics and condensed matter physics – and the relevant concepts are introduced following a didactic approach, drawing largely on the historical development of the field. The impact of the latest experimental data, such as gravitational waves emissions,

and the potential of future observational developments in the new era of multimessenger astronomy are extensively discussed. This volume is intended to provide PhD students in physics and astrophysics with solid foundations for their future research career. It is also a useful tool for the broader audience of more advanced readers, working in the fields of nuclear and particle physics as well as gravitational physics.