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Descrizione fisica	1 online resource (XV, 215 p. 49 illus.)
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Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Physical Properties of the Stars -- Physical Conditions in the Stellar Interior -- The Electron Gas -- The Photon Gas -- Adiabatic Processes in the Stellar Interior -- Polytropes -- Radiative Equilibrium -- Opacity -- Electron Conduction -- Convection -- Thermonuclear Reactions -- Energy Production -- Calculation of the Stellar Structure -- Appendix A: Constants and Units -- Solutions.
Sommario/riassunto	In the first part of this book, the author presents the basic properties of the stellar interior and describes them thoroughly, along with deriving the main stellar structure equations of temperature, density, pressure and luminosity, among others. The process and application of solving these equations is explained, as well as linking these results with actual observations. The second part of the text describes what happens to a star over time, and how to determine this by solving the same equations at different points during a star’s lifetime. The fate of various stars is quite different depending on their masses, and this is described in the final parts of the book. This text can be used for an upper level undergraduate course or an introductory graduate course on stellar physics.