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Titolo	The Pulsations of the Sun and the Stars [[electronic resource] /] / edited by Jean-Pierre Rozelot, Coralie Neiner
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Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Preface -- General Overview -- Advances in Global and Local Helioseismology: an Introductory Review -- Section 1: The Sun as a Star -- The Quiet Solar Photosphere: Dynamics and Magnetism -- Modeling and Prediction of Solar Cycles Using Data Assimilation Methods -- Amplitudes of Solar Gravity Modes -- Unveiling Stellar Cores and Multipole Moments via Their Flattening -- From Heliosismology to Asterosismology: Some Recent Developments -- Section 2: Stellar Pulsations -- Issues Relating to Observables of Rapidly Rotating Stars -- Seismic Diagnostics for Rotating Massive Main Sequence Stars -- Asymptotic Theory of Stellar Oscillations Based on Ray Dynamics -- Angular Momentum Transport by Regular Gravito-Inertial Waves in Stellar Radiation Zones -- Stochastic Excitation of Acoustic Modes in Stars.
Sommario/riassunto	This volume of lecture notes brings together the knowledge on pulsations of the Sun and the stars, with a particular emphasis on recent observations and modelling, and on the influence of pulsations of other physical processes. The book begins with an extensive

introduction to helioseismology. The solar cycle and gravity modes are discussed before the focus is widened from helioseismology to asteroseismology which is detailed in a series of specific chapters. Based on courses given at a graduate school, these tutorial lecture notes will be of interest and useful to a rather broad audience of scientists and students.