Record Nr. UNINA9910450680103321 Open issues in core collapse supernova theory [[electronic resource] /] **Titolo** / editors, Anthony Mezzacappa, George M. Fuller Pubbl/distr/stampa Hackensack, N.J.,: World Scientific, c2005 **ISBN** 1-281-90581-X 9786611905811 981-270-344-6 Descrizione fisica 1 online resource (475 p.) Collana Proceedings from the Institute for Nuclear Theory;; v. 14 Altri autori (Persone) MezzacappaAnthony FullerGeorge Michael Disciplina 523.8/4465 Soggetti Supernovae - Mathematical models Cataclysmic variable stars Electronic books. Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia "National Institute for Nuclear Theory, University of Washington, Note generali Seattle, 22-24 June 2004." Nota di bibliografia Includes bibliographical references. Nota di contenuto PREFACE: CONTENTS: Section 1 Overview: Section 2 Fundamental Issues in Radiation Magnet ohydrodynamics; Section 3 The Core Collapse Supernova Mechanism; Section 4 Neutrino Mixing; Section 5 Neutrino Interactions; Section 6 The Equation of State; Section 7 Nucleosynthesis and Light Curves Sommario/riassunto Efforts to uncover the explosion mechanism of core collapse supernovae and to understand all of their associated phenomena have been ongoing for nearly four decades. Despite this, our theoretical understanding of these cosmic events remains limited; two- and threedimensional modeling of these events is in its infancy. Most of the modeling efforts over the past four decades have, by necessity, been constrained to spherical symmetry, with the first two-dimensional, albeit simplified, models appearing only during the last decade. Simulations to understand the complex interplay between the turbul