Record Nr. UNINA9910787049403321 The causal universe / / edited by George F. R. Ellis, Michael Heller, **Titolo** Tadeusz Pabian Pubbl/distr/stampa Krakow, Poland:,: Copernicus Center Press,, 2013 ©2013 **ISBN** 83-7886-053-1 Descrizione fisica 1 online resource (330 p.) Disciplina 530.01 Causality (Physics) Soggetti Cosmology Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Note generali Description based upon print version of record. Includes bibliographical references at the end of each chapters and Nota di bibliografia index. Cover; Title page; Table of Contents; Introduction; Part ITop-Down Nota di contenuto Causality and Complexity; George F.R. Ellis Why Are the Laws of Nature as They Are? What Underlies Their Existence?; George F.R. Ellis Top-Down Causation as the Key to the Emergence of Complexity: Jean-Philippe UzanModels of the Cosmos and the Emergence of Complexity; Derek RaineCausality and Complexity; Part IICausality and the Structure of the Universe; Marek KusThe Uncertain Future and the Ambiguous Past in Classical, Quantumand General Non-signaling Settings; Julian BarbourReductionist Doubts Andrzej M. SotanX-ray Background and CosmologyAndrzej SitarzCausality and Noncommutativity; Michael HellerBottom-Up Causality in a New Setting; Mariusz P. DabrowskiVarying Physical Constant Cosmologies and the Anthropic Principle; Part IIUltimate Causality; Bogdan DembinskiCausality Issues in Ancient Greek Philosophy; William R. Stoeger S.J.Cosmology, Evolution, Causality and Creation: the Limits, Compatibilityand Cooperation of Scientific and Philosophical Methodologies: Thomas TracyGod and the Causal Structures of Nature: Some Puzzles Willem B. Drees God as Ground? Cosmology and Non-Causal Conceptions of the DivineIndex of Names

Sommario/riassunto

Written by philosophers, cosmologists, and physicists, this collection of

essays deals with causality, which is a core issue for both science and philosophy. Readers will learn about different types of causality in complex systems and about new perspectives on this issue based on physical and cosmological considerations. In addition, the book includes essays pertaining to the problem of causality in ancient Greek philosophy, and to the problem of God's relation to the causal structures of nature viewed in the light of contemporary physics and cosmology.