1. Record Nr. UNINA9910816635903321 Autore Carroll Robert Wayne <1930-> Titolo On the emergence theme of physics / / Robert Carroll Hackensack, N.J., : World Scientific, c2010 Pubbl/distr/stampa **ISBN** 1-282-76192-7 9786612761928 981-4291-80-3 Edizione [1st ed.] Descrizione fisica 1 online resource (288 p.) Disciplina 530.12 Soggetti Quantum theory General relativity (Physics) Emergence (Philosophy) Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Description based upon print version of record. Note generali Nota di bibliografia Includes bibliographical references and index. Nota di contenuto Contents; Preface; Chapter 1. SOME QUANTUM BACKGROUND; Chapter 2. SOME GEOMETRIC ASPECTS; Chapter 3. ASPECTS OF EMERGENCE; Chapter 4. KALUZA-KLEIN AND COSMOLOGY; Chapter 5. REMARKS ON THERMODYNAMICS AND GRAVITY; Chapter 6. GEOMETRY AND MECHANICS; Chapter 7. ON TIME AND THE UNIVERSE; Chapter 8. GRAVITY AND THE QUANTUM POTENTIAL; Bibliography; Index Sommario/riassunto The book surveys mathematical relations between classical and quantum mechanics, gravity, time and thermodynamics from various points of view and many sources (with appropriate attribution). The emergence theme is developed with an emphasis on the meaning via mathematics. A background theme of Bohemian mechanics and connections to the quantum equivalence principle of Matone et al. is also developed in great detail. Some original work relating the quantum

potential and Ricci flow is also included.