1. Record Nr. UNISA996546833003316 Autore Neittaanmäki Pekka Titolo Impact of Scientific Computing on Science and Society [[electronic resource] /] / edited by Pekka Neittaanmäki, Marja-Leena Rantalainen Pubbl/distr/stampa Cham:,: Springer International Publishing:,: Imprint: Springer,, 2023 **ISBN** 3-031-29082-8 Edizione [1st ed. 2023.] Descrizione fisica 1 online resource (451 pages) Collana Computational Methods in Applied Sciences, , 2543-0203; ; 58 Altri autori (Persone) RantalainenMarja-Leena Disciplina 303.4833 Soggetti **Engineering mathematics** Engineering—Data processing Mathematical and Computational Engineering Applications Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Nota di contenuto Part I: Scientific computing as the third paradigm of science -- Part II: Impact of scientific computing on natural sciences, environmental science, economics, social science, humanistic science, medicine, and engineering -- Part III: Scientific computing in high performance computing, quantum computing, and artificial intelligence environment -- Part IV: Scientific computing in 2030s and 2040s. This book analyzes the impact of scientific computing in science and Sommario/riassunto society over the coming decades. It presents advanced methods that can provide new possibilities to solve scientific problems and study important phenomena in society. The chapters cover Scientific computing as the third paradigm of science as well as the impact of scientific computing on natural sciences, environmental science, economics, social science, humanistic science, medicine, and engineering. Moreover, the book investigates scientific computing in high performance computing, quantum computing, and artificial intelligence environment and what it will be like in the 2030s and 2040s.