1. Record Nr. UNISA996320834203316 Autore Adrian Wuthrich (ed.) **Titolo** New Vistas on Old Problems: Recent Approaches to the Foundations of Quantum Mechanics: Proceedings of an International Symposium, Bern, June 23-24, 2011 Edition Open Access, 2013 Pubbl/distr/stampa Descrizione fisica 1 electronic resource (188 p.) Collana Proceedings 3: Max Planck Research Library for the History and Development of Knowledge Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Sommario/riassunto Quantum theory has been a subject of interpretational debates ever since its inception. The Einstein-Podolsky-Rosen paradox, the empirical violation of Bell's inequalities, and recent activities to exploit quantum entanglement for technological innovation only exacerbate a long-standing philosophical debate. Despite no-signaling theorems and theories of decoherence, deep-rooted conflicts between special relativistic principles and observed quantum correlations as well as between definite measurement outcomes and quantum theoretical superpositions persist. This collection of papers, first presented at an international symposium at the University of Bern in 2011, highlights some recent approaches to the old problems of a philosophy of quantum mechanics. The authors address the issues from a variety of perspectives, ranging from variations of causal theory and system theoretic interpretations of the observer to an empirical test of whether entanglement itself can be entangled. The essays demonstrate that the discussion about the foundations of quantum mechanics is as lively and

interesting as ever.

Record Nr. UNINA9910154749003321 Autore Madsen Ib **Titolo** Classifying Spaces for Surgery and Corbordism of Manifolds. (AM-92), Volume 92 / / R. James Milgram, Ib Madsen Pubbl/distr/stampa Princeton, NJ: .: Princeton University Press, . [2016] ©1980 **ISBN** 1-4008-8147-1 1 online resource (296 pages): illustrations Descrizione fisica Collana Annals of Mathematics Studies:: 229 Disciplina 514/.223 Soggetti Manifolds (Mathematics) Classifying spaces Surgery (Topology) Cobordism theory Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Note generali Bibliographic Level Mode of Issuance: Monograph Includes bibliographical references and index. Nota di bibliografia Nota di contenuto Frontmatter -- CONTENTS -- INTRODUCTION -- CHAPTER 1. CLASSIFYING SPACES AND COBORDISM -- CHAPTER 2. THE SURGERY CLASSIFICATION OF MANIFOLDS -- CHAPTER 3. THE SPACES SG AND BSG -- CHAPTER 4. THE HOMOTOPY STRUCTURE OF G/PL AND G/TOP -- CHAPTER 5. THE HOMOTOPY STRUCTURE OF MSPL[1/2] AND MSTOP [1/2] -- CHAPTER 6. INFINITE LOOP SPACES AND THEIR HOMOLOGY OPERATIONS -- CHAPTER 7. THE 2-LOCAL STRUCTURE OF B(G/TOP) --CHAPTER 8. THE TORSION FREE STRUCTURE OF THE ORIENTED COBORDISM RINGS -- CHAPTER 9. THE TORSION FREE COHOMOLOGY OF G/TOP AND G/PL -- CHAPTER 10. THE TORSION FREE COHOMOLOGY OF BTOP AND BPL -- CHAPTER 11. INTEGRALITY THEOREMS -- CHAPTER 12. THE SMOOTH SURGERY CLASSES AND H* (BTOP: /2) -- CHAPTER 13. THE BOCKSTEIN SPECTRAL SEQUENCE FOR BTOP -- CHAPTER 14. THE TYPES OF TORSION GENERATORS --APPENDIX. THE PROOFS OF 13.12, 13.13, AND 13.15 -- BIBLIOGRAPHY -- INDEX -- Backmatter Beginning with a general discussion of bordism, Professors Madsen and Sommario/riassunto Milgram present the homotopy theory of the surgery classifying spaces

and the classifying spaces for the various required bundle theories. The

next part covers more recent work on the maps between these spaces and the properties of the PL and Top characteristic classes, and includes integrality theorems for topological and PL manifolds. Later chapters treat the integral cohomology of BPL and Btop. The authors conclude with a discussion of the PL and topological cobordism rings and a construction of the torsion-free generators.