1. Record Nr. UNINA9910136613203321 Autore Slowik Edward Titolo The Deep Metaphysics of Space: An Alternative History and Ontology Beyond Substantivalism and Relationism / / by Edward Slowik Pubbl/distr/stampa Cham:,: Springer International Publishing:,: Imprint: Springer,, 2016 **ISBN** 9783319448688 Edizione [1st ed. 2016.] Descrizione fisica 1 online resource (356 p.) Collana European Studies in Philosophy of Science, , 2365-4228 Disciplina 100 Soggetti Philosophy and science Metaphysics History Philosophy of Science History of Science Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Note generali Description based upon print version of record. Includes bibliographical references and index. Nota di bibliografia Nota di contenuto Introduction -- Part I. Substantivalism and Relationism versus Newton and Leibniz -- A (Contrarian's) Reappraisal of the History and Current State of the Ontology Debate in the Philosophy of Space -- Newton's Neoplatonic Ontology of Space: Substantivalism or Third-Way? --Leibniz' Ontology of Space: Whither Relationism? -- Motion, Matter, Monads, and their "Forced" Relationship -- Part II. Third-Way Spatial Ontologies: Past and Present -- From Property to Structure: Exploring Contemporary Third-Way Conceptions of the Ontology of Space --Newton's Immobility Arguments and the Holism of Spatial Ontology --The 'Space' at the Intersection of Physics, Metaphysics, and Mathematics -- The Multiple Paths towards an Epistemic Structural Realist Spatial Ontology -- Part III. The Deep Metaphysics of Space from the Seventeenth Century to Quantum Gravity -- A New Taxonomy Beyond Substantivalism and Relationism I: Early Modern Spatial Ontologies -- A New Taxonomy Beyond Substantivalism and Relationism II: Some Philosophical Prehistory of Quantum Gravity --

Epilogue: The Post-Seventeenth Century Evolution of the Standard

Dichotomy -- References.

## Sommario/riassunto

This volume explores the inadequacies of the two standard conceptions of space or spacetime, substantivalism and relationism, and in the process, proposes a new historical interpretation of these physical theories. This book also examines and develops alternative ontological conceptions of space, and explores additional historical elements of seventeenth century theories and other metaphysical themes. The author first discusses the two main opposing theories of the ontology of space. One, known as substantivalism, proposes space to be an entity that can exist independently of material things. The other, relationism, contends that space is a relation among material things. Readers will learn about specific problems with this dichotomy. First, Newton and Leibniz are often upheld as the retrospective forerunners of substantivalism and relationism. But, their work often contradicts the central tenets of these views. Second, these theories have proven problematic when transferred to a modern setting, especially with regards to general relativity and the recent quantum gravity hypotheses. The author details an alternative set of concepts that address these problems. The author also develops a new classificational system that provides a more accurate taxonomy for the elements of all spatial ontologies. This classification obtains successful analogies between Newton, Leibniz, and other natural philosophers with contemporary physical theories.