

1. Record Nr.	UNINA9910640386903321
Autore	Bussotti Paolo
Titolo	Cosmology in the Early Modern Age: A Web of Ideas // by Paolo Bussotti, Brunello Lotti
Pubbl/distr/stampa	Cham : , : Springer International Publishing : , : Imprint : Springer, , 2022
ISBN	3-031-12195-3
Edizione	[1st ed. 2022.]
Descrizione fisica	1 online resource (346 pages)
Collana	Logic, Epistemology, and the Unity of Science, , 2214-9783 ; ; 56
Disciplina	895.6093538
Soggetti	Philosophy - History Cosmology Knowledge, Theory of History of Philosophy Epistemology
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Foreword -- Preface -- Introduction -- Chapter 1. The elements of a cosmological model -- Chapter 2. Copernicus' astronomical revolution -- Chapter 3. Kepler: the cosmographer par excellence -- Chapter 4. Galileo and the spread of the Copernican system -- Chapter 5. Descartes and the new mechanistic paradigm -- Chapter 6. Huygens: the greatest Cartesian scientist -- Chapter 7. Newton and his system of the world -- Chapter 8. Leibniz: the philosopher-scientist -- Conclusion -- Bibliography -- Glossary of the Technical Terms -- Index of Subjects -- Index of Figures -- Index of Names.
Sommario/riassunto	This volume addresses the history and epistemology of early modern cosmology as a paradigmatic example of the intersections of scientific theories and philosophical issues. The authors reconstruct the development of cosmological ideas in the age of the 'scientific revolution' from Copernicus to Leibniz, taking into account the growth of a unified celestial-and-terrestrial mechanics. The volume investigates how, in the rise of the new science, cosmology displayed deep and multifaceted interrelations between philosophical concepts and scientific notions stemming from mechanics, mathematics and

astronomy. Philosophical ideas were often employed to frame a general picture of the universe, as well as to criticize and interpret scientific notions and observational data. This interdisciplinary work reconstructs a conceptual web pervaded by various intellectual attitudes and drives. It presents a historical-epistemological itinerary which includes Copernicus, Kepler, Galileo, Descartes, Huygens, Newton and Leibniz. For each of these authors, a presentation and commentary of their cosmological views is provided, and outlines of their most relevant physical concepts are given. Furthermore, the philosophical and epistemological implications of their scientific works are highlighted. The purpose of this work is to unravel the complex intertwining of the different aspects that characterized the emergence of a new view of the universe in the early modern centuries.
