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Nota di contenuto	Chapter 1: Introduction: The Principle of Contingency from Medieval Physics to Early Modern Epistemology; Pietro D. Omodeo and Rodolfo Garau -- PART I: METAPHYSICAL AND NATURAL CONTINGENCY -- Chapter 2: Scholastic Views on Causality and the Quantification of Natural Phenomena; Magali Roques -- Chapter 3: Secundum Quid and Contingentia: Scholastic Reminiscences in Early Modern Mechanics; Pietro D. Omodeo and Jürgen Renn -- Chapter 4: Practical Knowledge and Contingency in the Renaissance -- Chapter 5: Contingency and Necessity in Renaissance Astrology -- Chapter 6: Two Early Modern Problems of Contingency: Irregularity and the Laws of Motion, and the Status of Secondary Qualities; Rodolfo Garau -- Chapter 7: Dealing with Contingency in Early Modern Mathematics -- Chapter 8: Sufficient Reason and the Vagaries of Keplerian Matter; Jonathan Regier -- Chapter 9: Is Physiology the Domain of Necessity or Contingency in Descartes's Physics? Balint Kekedi -- Chapter 10: Contingency in Early Modern Life Sciences -- PART II: THE EXPERIENCE AND THE EPISTEMOLOGY OF CONTINGENCY -- Chapter 11: Facing Complexity:

Experience and Statistics; Stephen Gaukroger -- Chapter 12: Ars Experimentandi. Laws of Nature, Matterly Objects and Contingent Circumstances; Enrico Pasini -- Chapter 13: Experimental Contingency and Mechanical Laws in Robert Hooke's Matter Theory; Francesco G. Sacco -- Chapter 14: Optics and Contingency -- Chapter 15: Contingency and Astronomical Observation; Ofer Gal -- Chapter 15: Seventeenth-Century Philosophical Language Projects to Face the Problem of Contingency; Judith Kaplan -- Chapter 16: Newtonian Physics and Contingency.

Sommario/riassunto

This volume considers contingency as a historical category resulting from the combination of various intellectual elements – epistemological, philosophical, material, as well as theological and, broadly speaking, intellectual. With contributions ranging from fields as diverse as the histories of physics, astronomy, astrology, medicine, mechanics, physiology, and natural philosophy, it explores the transformation of the notion of contingency across the late-medieval, Renaissance, and the early modern period. Underpinned by a necessitated vision of nature, seventeenth century mechanism widely identified apparent natural irregularities with the epistemological limits of a certain explanatory framework. However, this picture was preceded by, and in fact emerged from, a widespread characterization of contingency as an ontological trait of nature, typical of late-Scholastic and Renaissance science. On these bases, this volume shows how epistemological categories, which are preconditions of knowledge as “historically-situated a priori” and, seemingly, self-evident, are ultimately rooted in time. Contingency is intrinsic to scientific practice. Whether observing the behaviour of a photon, diagnosing a patient, or calculating the orbit of a distant planet, scientists face the unavoidable challenge of dealing with data that differ from their models and expectations. However, epistemological categories are not fixed in time. Indeed, there is something fundamentally different in the way an Aristotelian natural philosopher defined a wonder or a “monstrous” birth as “contingent”, a modern scientist defines the unexpected result of an experiment, and a quantum physicist the behavior of a photon. Although to each inquirer these instances appeared self-evidently contingent, each also employs the concept differently.
