Record Nr. UNINA9910790463203321 Interpreting Newton: critical essays / / edited by Andrew Janiak and **Titolo** Eric Schliesser [[electronic resource]] Pubbl/distr/stampa Cambridge:,: Cambridge University Press,, 2012 **ISBN** 1-139-15269-6 1-107-21749-0 1-280-88676-5 1-139-16018-4 9786613728074 1-139-15736-1 1-139-15561-X 1-139-16117-2 1-139-15912-7 0-511-99484-2 Descrizione fisica 1 online resource (x, 439 pages) : digital, PDF file(s) Classificazione PHI016000 Disciplina 192 Soggetti Philosophy of nature - History - 17th century Philosophy of nature - History - 18th century Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Title from publisher's bibliographic system (viewed on 05 Oct 2015). Note generali Nota di bibliografia Includes bibliographical references and index. Nota di contenuto Introduction / Andrew Janiak and Eric Schliesser -- Newton's lawconstitutive approach to bodies: a response to Descartes / Katherine Brading -- Leibniz, Newton and force / Daniel Garber -- Locke's qualified embrace of Newton's Principia / Mary Domski -- What geometry postulates: Newton and Barrow on the relationship of mathematics to nature / Katherine Dunlop -- Cotes' gueries: Newton's empiricism and conceptions of matter / Zvi Biener and Chris Smeenk --Newton's scientific method and the universal law of gravitation / Ori Belkind -- Newton, Huygens and Euler: empirical support for laws of motion / William Harper -- What did Newton mean by 'Absolute Motion'? / Nick Huggett -- From velocities to fluxions / Marco Panza --Newton, Locke, and Hume / Graciela de Pierris -- Maupertuis on

attraction as an inherent property of matter / Lisa Downing -- The Newtonian refutation of Spinoza: Newton's challenge and the Socratic problem / Eric Schliesser -- Dispositional explanations: Boyle's problem, Newton's solution, Hume's response / Lynn S. Joy -- Newton and Kant on absolute space: from theology to transcendental philosophy / Michael Friedman -- How Newton's Principia changed physics / George E. Smith.

Sommario/riassunto

This collection of specially commissioned essays by leading scholars presents research on Isaac Newton and his main philosophical interlocutors and critics. The essays analyze Newton's relation to his contemporaries, especially Barrow, Descartes, Leibniz and Locke and discuss the ways in which a broad range of figures, including Hume, Maclaurin, Maupertuis and Kant, reacted to his thought. The wide range of topics discussed includes the laws of nature, the notion of force, the relation of mathematics to nature, Newton's argument for universal gravitation, his attitude toward philosophical empiricism, his use of 'fluxions', his approach toward measurement problems and his concept of absolute motion, together with new interpretations of Newton's matter theory. The volume concludes with an extended essay that analyzes the changes in physics wrought by Newton's Principia. A substantial introduction and bibliography provide essential reference guides.