Record Nr. UNINA9910797765003321 Metaphysics in contemporary physics / / edited by Tomasz Bigaj, **Titolo** Christian Wuthrich Pubbl/distr/stampa Leiden, Netherlands;; Boston, [Massachusetts]:,: Brill Rodopi,, 2016 ©2016 **ISBN** 90-04-31082-7 Descrizione fisica 1 online resource (485 pages) Poznan studies in the philosophy of the sciences and the humanities, , Collana 0303-8157;; Volume 104 530.01 Disciplina Soggetti Physics - Philosophy Quantum theory - Philosophy Metaphysics Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Nota di bibliografia Includes bibliographical references at the end of each chapters. Nota di contenuto Preliminary Material / Tomasz Bigaj and Christian Wüthrich --Introduction / Tomasz Bigaj and Christian Wüthrich -- Rethinking Outside the Toolbox: Reflecting Again on the Relationship between Philosophy of Science and Metaphysics. / Steven French and Kerry McKenzie -- Ontology: An Empirical Fundamentalist Approach. / Douglas Kutach -- Quantum Structure and Spacetime. / Vincent Lam --Things Ain't What They Used to Be. Physics Without Objects / Dean Rickles and Jessica Bloom -- Particles in a Quantum Ontology of Properties / Olimpia Lombardi and Dennis Dieks -- Essentialism and Modern Physics / Tomasz Bigaj -- Symmetry and Qualitativity / Thomas Møller-Nielsen -- Relational Time / Matteo Morganti --General Covariance, Diffeomorphism Invariance, and Background Independence in 5 Dimensions / Antonio Vassallo -- A Metaphysics from String Dualities: Pluralism, Fundamentalism, Modality / Ioan

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## Butterfield and Nazim Bouatta.

## Sommario/riassunto

This book is a collection of essays whose topics center around relations between analytic metaphysics and modern physical theories. The contributions to the volume cover a broad spectrum of issues, ranging from metaphysical implications of selected physical theories (quantum mechanics, quantum field theory, general relativity, string theory et cetera), to specific problems in scientifically-oriented analytic metaphysics, such as the problem of emergence and reduction, the part-whole relation, and the question of objecthood, properties and individuality on the fundamental level of reality. The authors of the contributions are philosophers of science, physicists and metaphysicians of international renown, and their work represents the cutting edge in modern metaphysics of physical sciences. Contributors are: Tomasz Bigaj, Jessica Bloom, Nazim Bouatta, Jeremy Butterfield, Adam Caulton, Dennis Dieks, Mauro Dorato, Michael Esfeld, Steven French, Andreas Hüttemann, Marek Ku, Douglas Kutach, Vincent Lam, Olimpia Lombardi, Kerry McKenzie, Thomas Møller-Nielsen, Matteo Morganti, Ioan Muntean, Dean Rickles, Antonio Vassallo, Jessica Wilson, Christian Wüthrich