

1. Record Nr.	UNINA9910992774603321
Autore	Grodzicki Michael
Titolo	Physical Reality – Construction or Discovery? : An Introduction to the Methodology and Aims of Physics / / by Michael Grodzicki
Pubbl/distr/stampa	Cham : , : Springer Nature Switzerland : , : Imprint : Springer, , 2025
ISBN	9783031870903 3031870905
Edizione	[2nd ed. 2025.]
Descrizione fisica	1 online resource (324 pages)
Disciplina	530
Soggetti	Physics - Philosophy Science - Philosophy Knowledge, Theory of Empiricism Philosophy of Physics Philosophy of Science Epistemology
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di contenuto	The Worldview of Physics I: Presuppositions -- Methodology of Physics -- The Structure of Physical Theories -- Theory and Experience -- The Worldview of Physics II: Implications.
Sommario/riassunto	This book offers a well-grounded account of the methodology of physics, the structure of physical knowledge and theories, and in particular of the relations between theory and experience. An important feature of the book is that all its essential conclusions are elucidated with the help of representative examples from theoretical, molecular and solid state physics. The comprehensively revised new edition provides, beside further examples and additions, numerous text restructurings and shortenings that focus on the basic argumentation. This particularly applies to the section on theoretical methodology, the section on axiomatization and the conception of closed theories, the section with the definition, status and methodological function of physical laws, and section on the methods of consistent adjustment. Overall, these improvements will contribute to a more readable text

and a better understanding of the basic arguments.
