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Titolo	Deduction, computation, experiment : exploring the effectiveness of proof // Rossella Lupacchini, Giovanna Corsi (eds.)
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Altri autori (Persone)	CorsiGiovanna LupacchiniRossella
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Note generali	Description based upon print version of record.
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Why Proof? What is a Proof? -- On Formal Proofs -- Toy Models in Physics and the Reasonable Effectiveness of Mathematics -- Experimental Methods in Proofs -- Proofs Verifying Programs and Programs Producing Proofs: A Conceptual Analysis -- The Logic of the Weak Excluded Middle: A Case Study of Proof-Search -- Automated Search for Gödel's Proofs -- Proofs as Efficient Programs -- Quantum Combing -- Proofs instead of Meaning Explanations: Understanding Classical vs Intuitionistic Mathematics from the Outside -- Proof as a Path of Light -- Computability and Incomputability of Differential Equations -- Phenomenology of Incompleteness: From Formal Deductions to Mathematics and Physics.
Sommario/riassunto	What is a proof for? What is the characteristic use of a proof as a computation, as opposed to its use as an experiment? What is the relationship between mathematical procedures and natural processes? The essays collected in this volume address such questions from different points of view and will interest students and scholars in

several branches of scientific knowledge. Some essays deal with the logical skeleton of deduction, others examine the interplay between natural systems and models of computation, yet others use significant results from the natural sciences to illustrate the character of procedures in applied mathematics. Focusing on relevant conceptual and logical issues underlying the overall quest for proving, the volume seeks to cast light on what the effectiveness of proof rests on.
