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Titolo	Handbook of Abductive Cognition [[electronic resource] /] / edited by Lorenzo Magnani
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ISBN	3-030-68436-9
Descrizione fisica	1 online resource (20 illus., 10 illus. in color.)
Disciplina	006.3
Soggetti	Computational intelligence Cognitive science Neural networks (Computer science) Knowledge, Theory of Computational Intelligence Cognitive Science Mathematical Models of Cognitive Processes and Neural Networks Epistemology
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di contenuto	Philosophy and Abduction -- Theoretical and Cognitive Issues on Abduction and Scientific Inference -- The Logic of Hypothetical Reasoning, Abduction, and Models -- Abduction and Diagnosis -- Abduction in Mathematics -- Diagrams, Visual models, and Abduction -- Abduction in Cognitive Science and Neuroscience -- Abduction and Computation -- Abduction and Economics -- Abduction in Education and Human Sciences -- Abduction, Ignorance, and Creativity -- Abduction and Technological Design -- Adversarial Abduction (or Abduction and Adversariality).
Sommario/riassunto	This Handbook offers the first comprehensive reference guide to the interdisciplinary field of abductive cognition, providing readers with extensive information on the process of reasoning to hypotheses in humans, animals, and in computational machines. It highlights the role of abduction in both theory practice: in generating and testing hypotheses and explanatory functions for various purposes and as an

educational device. It merges logical, cognitive, epistemological and philosophical perspectives with more practical needs relating to the application of abduction across various disciplines and practices, such as in diagnosis, creative reasoning, scientific discovery, diagrammatic and ignorance-based cognition, and adversarial strategies. It also discusses the inferential role of models in hypothetical reasoning, abduction and creativity, including the process of development, implementation and manipulation for different scientific and technological purposes. Written by a group of internationally renowned experts in philosophy, logic, general epistemology, mathematics, cognitive, and computer science, as well as life sciences, engineering, architecture, and economics, the Handbook of Abductive Cognition offers a unique reference guide for readers approaching the process of reasoning to hypotheses from different perspectives and for various theoretical and practical purposes. Numerous diagrams, schemes and other visual representations are included to promote a better understanding of the relevant concepts and to make concepts highly accessible to an audience of scholars and students with different scientific backgrounds.

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