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Titolo	Reasoning with Logic Programming [[electronic resource] /] / by Jose Julio Alferes, Luis Moniz Pereira
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Descrizione fisica	1 online resource (XXIV, 336 p.)
Collana	Lecture Notes in Artificial Intelligence ; ; 1111
Disciplina	006.3/3
Soggetti	Architecture, Computer Programming languages (Electronic computers) Artificial intelligence Computer programming Computer logic Mathematical logic Computer System Implementation Programming Languages, Compilers, Interpreters Artificial Intelligence Programming Techniques Logics and Meanings of Programs Mathematical Logic and Formal Languages
Lingua di pubblicazione	Inglese
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Nota di contenuto	Normal logic programs -- Extended logic programs -- Why a new semantics for extended programs? -- WFSX — A well founded semantics for extended logic programs -- WFSX, LP semantics with two negations, and autoepistemic logics -- WFSX and default logic -- WFSX and hypotheses abduction -- Dealing with contradiction -- Further properties and comparisons -- Top-down derivation procedures for WFSX -- Application to classical nonmonotonic reasoning problems -- Application to diagnosis and debugging.
Sommario/riassunto	As the first monograph in the field, this state-of-the-art survey provides a rigorous presentation of logic programs as representational

and reasoning tools. The authors used this book successfully as a text for a MSc course. The use of logic programming for various types of reasoning, particularly for nonmonotonic reasoning, is thoroughly investigated and illustrated and a variety of knowledge representation formalisms, like default negation, integrity constraints, default rules, etc., are treated in depth. Besides the main text, detailed introductory background and motivational information is included together with a bibliography listing 215 entries as well as the listing of the Prolog interpreter used in the text for running numerous examples.