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Titolo	Fuzzy Logic of Quasi-Truth: An Algebraic Treatment // by Antonio Di Nola, Revaz Grigolia, Esko Turunen
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Descrizione fisica	1 online resource (VI, 116 p. 3 illus.)
Collana	Studies in Fuzziness and Soft Computing, , 1434-9922 ; ; 338
Disciplina	511.3
Soggetti	Computational intelligence Algebra Computer science—Mathematics Computational Intelligence General Algebraic Systems Symbolic and Algebraic Manipulation
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Includes index.
Nota di contenuto	Introduction -- Basic Notions -- Classical Sentential Calculus and Lukasiewicz Sentential Calculus -- MV -Algebras: Generalities -- Local MV -algebras -- Perfect MV -algebras -- The Variety Generated by Perfect MV -algebras -- Representations of Perfect MV -algebras -- The Logic of Perfect Algebras -- The Logic of Quasi True -- Perfect Pavelka Logic.
Sommario/riassunto	This book presents the first algebraic treatment of quasi-truth fuzzy logic and covers the algebraic foundations of many-valued logic. It offers a comprehensive account of basic techniques and reports on important results showing the pivotal role played by perfect many-valued algebras (MV-algebras). It is well known that the first-order predicate ukasiewicz logic is not complete with respect to the canonical set of truth values. However, it is complete with respect to all linearly ordered MV –algebras. As there are no simple linearly ordered MV-algebras in this case, infinitesimal elements of an MV-algebra are allowed to be truth values. The book presents perfect algebras as an interesting subclass of local MV-algebras and provides readers with the

necessary knowledge and tools for formalizing the fuzzy concept of quasi true and quasi false. All basic concepts are introduced in detail to promote a better understanding of the more complex ones. It is an advanced and inspiring reference-guide for graduate students and researchers in the field of non-classical many-valued logics.

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