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Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Foundations -- Formal Concept Analysis as Mathematical Theory of Concepts and Concept Hierarchies -- Semiconcept and Protoconcept Algebras: The Basic Theorems -- Features of Interaction Between Formal Concept Analysis and Algebraic Geometry -- From Formal Concept Analysis to Contextual Logic -- Contextual Attribute Logic of Many-Valued Attributes -- Treating Incomplete Knowledge in Formal Concept Analysis -- States, Transitions, and Life Tracks in Temporal Concept Analysis -- Applications -- Linguistic Applications of Formal Concept Analysis -- Using Concept Lattices for Text Retrieval and Mining -- Efficient Mining of Association Rules Based on Formal Concept Analysis -- Galois Connections in Data Analysis: Contributions from the Soviet Era and Modern Russian Research -- Conceptual Knowledge Processing in the Field of Economics -- Software Engineering -- A Survey of Formal Concept Analysis Support for Software Engineering Activities -- Concept Lattices in Software Analysis

-- Formal Concept Analysis Used for Software Analysis and Modelling
-- Formal Concept Analysis-Based Class Hierarchy Design in Object-Oriented Software Development -- The ToscanaJ Suite for Implementing Conceptual Information Systems.

Sommario/riassunto

Formal concept analysis has been developed as a field of applied mathematics based on the mathematization of concept and concept hierarchy. It thereby allows us to mathematically represent, analyze, and construct conceptual structures. The formal concept analysis approach has been proven successful in a wide range of application fields. This book constitutes a comprehensive and systematic presentation of the state of the art of formal concept analysis and its applications. The first part of the book is devoted to foundational and methodological topics. The contributions in the second part demonstrate how formal concept analysis is successfully used outside of mathematics, in linguistics, text retrieval, association rule mining, data analysis, and economics. The third part presents applications in software engineering.
