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	Soggetti	Topology Logic, Symbolic and mathematical Categories (Mathematics) Algebra, Homological Algebra Computer science—Mathematics Computer science - Mathematics Discrete mathematics Mathematical Logic and Foundations Category Theory, Homological Algebra General Algebraic Systems Mathematical Applications in Computer Science Discrete Mathematics
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	Nota di contenuto	1.Introduction -- 2. Prerequisites -- 3. Products of Relations -- 4. Meet and Join as Relations -- 5. Applying Relations in Topology -- 6. Construction of Topologies -- 7. Closures and their Aumann Contacts -- 8. Proximity and Nearness -- 9. Frames -- 10. Simplicial Complexes.
	Sommario/riassunto	This book introduces and develops new algebraic methods to work with relations, often conceived as Boolean matrices, and applies them to topology. Although these objects mirror the matrices that appear throughout mathematics, numerics, statistics, engineering, and elsewhere, the methods used to work with them are much less well

known. In addition to their purely topological applications, the volume also details how the techniques may be successfully applied to spatial reasoning and to logics of computer science. Topologists will find several familiar concepts presented in a concise and algebraically manipulable form which is far more condensed than usual, but visualized via represented relations and thus readily graspable. This approach also offers the possibility of handling topological problems using proof assistants.