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Nota di contenuto	1. Introduction and Overview -- 2. Preliminaries -- 3. Bonferroni Inequalities via Abstract Tubes -- 4. Abstract Tubes via Closure and Kernel Operators -- 5. Recursive Schemes -- 6. Reliability Applications -- 7. Combinatorial Applications and Related Topics -- Bibliography -- Index.
Sommario/riassunto	This introduction to the recent theory of abstract tubes describes the framework for establishing improved inclusion-exclusion identities and Bonferroni inequalities, which are provably at least as sharp as their classical counterparts while involving fewer terms. All necessary definitions from graph theory, lattice theory and topology are provided. The role of closure and kernel operators is emphasized, and examples are provided throughout to demonstrate the applicability of this new theory. Applications are given to system and network reliability, reliability covering problems and chromatic graph theory. Topics also covered include Zeilberger's abstract lace expansion, matroid polynomials and Möbius functions.

