1. Record Nr. UNINA9910830251503321 Autore Alon Noga Titolo The probabilistic method / / Noga Alon, Joel H. Spencer Pubbl/distr/stampa New York:,: Interscience Publishers,, [2000] ©2000 **ISBN** 1-280-27276-7 9786610272761 0-470-31228-9 0-471-72215-4 Edizione [Second edition.] Descrizione fisica 1 online resource (322 p.) Collana Wiley-Interscience series in discrete mathematics and optimization Disciplina 511.6 Soggetti Combinatorial analysis **Probabilities** Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia "A Wiley-Interscience publication." Note generali Includes bibliographical references (p. 283-293) and indexes. Nota di bibliografia Nota di contenuto Dedication; Preface; Acknowledgments; Contents; Part I: METHODS; 1 The Basic Method; 1.1 The Probabilistic Method; 1.2 Graph Theory; 1.3 Combinatorics; 1.4 Combinatorial Number Theory; 1.5 Disjoint Pairs; 1.6 Exercises: The Probabilistic Lens: The Erdos-Ko-Rado Theorem: 2 Linearity of Expectation; 2.1 Basics; 2.2 Splitting Graphs; 2.3 Two Quickies; 2.4 Balancing Vectors; 2.5 Unbalancing Lights; 2.6 Without Coin Flips; 2.7 Exercises; The Probabilistic Lens: Bregman's Theorem; 3 Alterations; 3.1 Ramsey Numbers; 3.2 Independent Sets; 3.3 Combinatorial Geometry; 3.4 Packing; 3.5 Recoloring 3.6 Continuous Time3.7 Exercises; The Probabilistic Lens: High Girth and High Chromatic Number; 4 The Second Moment; 4.1 Basics; 4.2 Number Theory; 4.3 More Basics; 4.4 Random Graphs; 4.5 Clique Number; 4.6 Distinct Sums; 4.7 The Rodl Nibble; 4.8 Exercises; The Probabilistic Lens: Hamiltonian Paths; 5 The Local Lemma; 5.1 The Lemma; 5.2 Property B and Multicolored Sets of Real Numbers; 5.3 Lower Bounds for Ramsey Numbers; 5.4 A Geometric Result; 5.5 The Linear Arboricity of Graphs; 5.6 Latin Transversals; 5.7 The Algorithmic

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The leading reference on probabilistic methods in combinatorics-now expanded and updatedWhen it was first published in 1991, The Probabilistic Method became instantly the standard reference on one of the most powerful and widely used tools in combinatorics. Still without competition nearly a decade later, this new edition brings you up to speed on recent developments, while adding useful exercises and over 30% new material. It continues to emphasize the basic elements of the methodology, discussing in a remarkably clear and informal style both algorithmic and classical methods as well

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