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Autore	Ban Adrian I
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Nota di contenuto	Preface; Contents; Chapter 1 Introduction; 1.1 General Description of the Topic; 1.2 On Chapter 2: Defect of Property in Set Theory; 1.3 On Chapter 3: Defect of Property in Topology; 1.4 On Chapter 4: Defect of Property in Measure Theory; 1.5 On Chapter 5: Defect of Property in Real Function Theory; 1.6 On Chapter 6: Defect of Property in Functional Analysis; 1.7 On Chapter 7: Defect of Property in Algebra; 1.8 On Chapter 8: Miscellaneous; Chapter 2 Defect of Property in Set Theory; 2.1 Measures of Fuzziness; 2.2 Intuitionistic Entropies; 2.3 Applications 2.3.1 Application to determination of degree of interference2.3.2 Application to description of the performance of systems; 2.3.3 Application to digital image processing; 2.4 Bibliographical Remarks; Chapter 3 Defect of Property in Topology; 3.1 Measures of Noncompactness for Classical Sets; 3.2 Random Measures of Noncompactness; 3.3 Measures of Noncompactness for Fuzzy Subsets in Metric Space; 3.4 Measures of Noncompactness for Fuzzy Subsets in Topological Space; 3.5 Defects of Opening and of Closure for Subsets in Metric Space; 3.6 Bibliographical Remarks and Open Problems Chapter 4 Defect of Property in Measure Theory4.1 Defect of Additivity: Basic Definitions and Properties; 4.1.1 Application to calculation of fuzzy integral; 4.1.2 Application to best approximation of a fuzzy

measure; 4.1.3 A metric on the family of fuzzy measures; 4.2 Defect of Complementarity; 4.3 Defect of Monotonicity; 4.4 Defect of Subadditivity and of Superadditivity; 4.5 Defect of Measurability; 4.6 Bibliographical Remarks; Chapter 5 Defect of Property in Real Function Theory; 5.1 Defect of Continuity of Differentiability and of Integrability
5.2 Defect of Monotonicity of Convexity and of Linearity5.3 Defect of Equality for Inequalities; 5.4 Bibliographical Remarks and Open Problems; Chapter 6 Defect of Property in Functional Analysis; 6.1 Defect of Orthogonality in Real Normed Spaces; 6.2 Defect of Property for Sets in Normed Spaces; 6.3 Defect of Property for Functionals; 6.4 Defect of Property for Linear Operators on Normed Spaces; 6.5 Defect of Fixed Point; 6.6 Bibliographical Remarks and Open Problems; Chapter 7 Defect of Property in Algebra; 7.1 Defects of Property for Binary Operations
7.2 Calculations of the Defect of Property7.3 Defect of Idempotency and Distributivity of Triangular Norms; 7.4 Applications; 7.5 Bibliographical Remarks; Chapter 8 Miscellaneous; 8.1 Defect of Property in Complex Analysis; 8.2 Defect of Property in Geometry; 8.3 Defect of Property in Number Theory; 8.4 Defect of Property in Fuzzy Logic; 8.5 Bibliographical Remarks and Open Problems; Bibliography; Index

Sommario/riassunto

"This book introduces a method of reasearch which can be used in various fields of mathematics. It examines, in a systematic way, the quantitative characterizations of the "deviation from a (given) property", called the "defect of a property", in: set theory; topology; measure theory; real, complex and functional analysis; algebra; geometry; number theory; fuzzy mathematics"--P. [2] of cover.