

1. Record Nr.	UNISA996426341203316
Autore	Denes J.
Titolo	Latin squares and their applications // J. Denes, A. D. Keedwell
Pubbl/distr/stampa	Amsterdam, [Netherlands] : , : Academic Press, , 2015 ©2015
ISBN	0-444-63558-0 0-444-63555-6
Edizione	[Second edition.]
Descrizione fisica	1 online resource (439 p.)
Disciplina	512.9/25
Soggetti	Magic squares Electronic books.
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Description based upon print version of record
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	<p>""Front Cover""; ""Latin Squares and their Applications""; ""Copyright""; ""Foreword to the First Edition""; ""Contents""; ""Preface to the First Edition""; ""Acknowledgements (First Edition)""; ""Preface to the Second Edition""; ""Chapter 1: Elementary Properties""; ""1.1 The Multiplication Table of a Quasigroup""; ""1.2 The Cayley Table of a Group""; ""1.3 Isotopy""; ""1.4 Conjugacy and Parastrophy""; ""1.5 Transversals and Complete Mappings""; ""1.6 Latin Subsquares and Subquasigroups""; ""Chapter 2: Special Types of Latin Square""; ""2.1 Quasigroup Identities and Latin Squares""</p> <p>""2.2 Quasigroups of Some Special Types and the Concept of Generalized Associativity""""2.3 Triple Systems and Quasigroups""; ""2.4 Group-Based Latin Squares and Nuclei of Loops""; ""2.5 Transversals in Group-Based Latin Squares""; ""2.6 Complete Latin Squares""; ""Chapter 3: Partial Latin Squares and Partial Transversals""; ""3.1 Latin Rectangles and Row Latin Squares""; ""3.2 Critical Sets and Sudoku Puzzles""; ""3.3 Fuchsa€? Problems""; ""3.4 Incomplete Latin Squares and Partial Quasigroups""; ""3.5 Partial Transversals and Generalized Transversals""</p> <p>""Chapter 4: Classification and Enumeration of Latin Squares and Latin Rectangles""""4.1 The Autotopism Group of a Quasigroup""; ""4.2 Classification of Latin Squares""; ""4.3 History of the Classification and Enumeration of Latin Squares""; ""4.4 Enumeration of Latin Rectangles"";</p>

""4.5 Enumeration of Transversals""; ""4.6 Enumeration of Subsquares""; ""Chapter 5: The Concept of Orthogonality""; ""5.1 Existence Questions for Incomplete Sets of Orthogonal Latin Squares""; ""5.2 Complete Sets of Orthogonal Latin Squares and Projective Planes""; ""5.3 Sets of MOLS of Maximum and Minimum Size"" ""5.4 Orthogonal Quasigroups, Groupoids and Triple Systems"" ""5.5 Self-Orthogonal and Other Parastrophic Orthogonal Latin Squares and Quasigroups""; ""5.6 Orthogonality in Other Structures Related to Latin Squares""; ""Chapter 6: Connections Between Latin Squares and Magic Squares""; ""6.1 Diagonal (or Magic) Latin Squares""; ""6.2 Construction of Magic Squares with the Aid of Orthogonal Latin Squares.""; ""6.3 Additional Results on Magic Squares""; ""6.4 Room Squares: Their Construction and Uses"" ""Chapter 7: Constructions of Orthogonal Latin Squares Which Involve Rearrangement of Rows and Columns"" ""7.1 Generalized Bose Construction: Constructions Based on Abelian Groups""; ""7.2 The Automorphism Method of H.B. Mann""; ""7.3 The Construction of Pairs of Orthogonal Latin Squares of Order Ten""; ""7.4 The Column Method""; ""7.5 The Diagonal Method""; ""7.6 Left Neofields and Orthomorphisms of Groups""; ""Chapter 8: Connections with Geometry and Graph Theory""; ""8.1 Quasigroups and 3-Nets""; ""8.2 Orthogonal Latin Squares, k-Nets and Introduction of Co-ordinates"" ""8.3 Latin Squares and Graphs""

Sommario/riassunto

Latin Squares and Their Applications Second edition offers a long-awaited update and reissue of this seminal account of the subject. The revision retains foundational, original material from the frequently-cited 1974 volume but is completely updated throughout. As with the earlier version, the author hopes to take the reader 'from the beginnings of the subject to the frontiers of research'. By omitting a few topics which are no longer of current interest, the book expands upon active and emerging areas. Also, the present state of knowledge regarding the 73 then-unsolved problems given at the
