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Nota di contenuto	Introduction -- Chapter 1 Basic Definitions -- Chapter 2 Gauss Sums, Jacobi Sums, and Relative Gauss Sums -- Chapter 3 Plug-In Matrices -- Chapter 4 Arrays: Matrices to Plug-Into -- Chapter 5 Sequences -- Chapter 6 M-structures -- Chapter 7 Menon Hadamard Difference Sets and Regular Hadamard Matrices -- Chapter 8 Paley Hadamard Difference Sets and Paley Type Partial Difference Sets -- Chapter 9 Skew Hadamard, Amicable, and Symmetric Matrices -- Chapter 10 Skew Hadamard Difference Sets -- Chapter 11 Asymptotic Existence of Hadamard Matrices -- Chapter 12 More on Maximal Determinant Matrices -- Appendix A Hadamard Matrices -- Appendix B List of sds from Cyclotomy -- Appendix C Further Research Questions -- References -- Index.
Sommario/riassunto	"This book, which is the update of a 1992 survey by the same authors, summarizes some known constructions of Hadamard Matrices that are based on algebraic and number theoretic methods. Hadamard matrices are of practical use in signal processing and design experiments among other applications. This book begins with basic definitions, and is followed by a chapter on Gauss sums, Jacobi sums and relative Gauss sums. Next, the authors discuss plug-in matrices, arrays, and sequences. M-structure is covered next, along with Menon Hadamard

differences sets and regular Handmard matrices. The authors then discuss Paley difference sets, skew-Handmard matrices, and skew Handmard differences sets. Finally, the book concludes with a discussion of asymptotic existence of Handmard matrices and more on maximal determinant matrices"--