

1. Record Nr.	UNINA9910847578903321
Titolo	New Advances in Designs, Codes and Cryptography : Stinson66, Toronto, Canada, June 13-17, 2022 // edited by Charles J. Colbourn, Jeffrey H. Dinitz
Pubbl/distr/stampa	Cham : , : Springer Nature Switzerland : , : Imprint : Springer, , 2024
ISBN	3-031-48679-X
Edizione	[1st ed. 2024.]
Descrizione fisica	1 online resource (442 pages)
Collana	Fields Institute Communications, , 2194-1564 ; ; 86
Disciplina	001.5436
Soggetti	Number theory Quantum communication Statistics Computer science Approximation theory Number Theory Quantum Communications and Cryptography Computer Science Approximations and Expansions
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di bibliografia	Includes bibliographical references.
Nota di contenuto	Preface -- Introduction -- Mutually orthogonal binary frequency squares of mixed type -- Heffter arrays from finite fields -- A survey on constructive resolution methods for the Oberwolfach problem and its variants -- Asymptomatic existence of egalitarian Steiner 2-designs -- Private computations on set intersection -- Colourings of path systems -- A New Lower Bound on the Share Size of Leakage Resilient Secret Sharing Schemes -- Small transitive homogenous 3-(v,{4,6}, 1) designs -- Cryptography, Codes, and Keys: An Authenticated Key Exchange Protocol from Code-Based Cryptography -- Aspects of Methods for Constructing Random Steiner Triple Systems -- Decomposing Complete Graphs into Isomorphic Complete Multipartite Graphs -- Cover-Free Families: constructions, applications and generalizations -- Group rings and character sums: tricks of the trade -- An alternative existence proof for LSTS(24k+1) -- On a class of

optimal constant weight codes -- Quaternary Legendre pairs -- Self orthogonal Latin squares and Room squares -- On the spectrum of large sets plus of partitioned incomplete Latin squares with type  $gn(2g)1$  -- On the Optimization of Pippenger's Bucket Method for Precomputation -- Block Size Five - Quo Vadis? -- A survey of Heffter arrays -- Orthogonal and strong frame starters, revisited -- An efficient Screening Method -- Bibliography -- Index.

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### Sommario/riassunto

This volume records and disseminates selected papers from the Stinson66 conference, including surveys, prospectives, and papers presenting original and current research. It contains four accessible surveys of topics in combinatorial designs and related topics, ranging from a tutorial survey of connections to classical group theory, to surveys of "hot topics" in current research. It also contains a prospective paper identifying topics for future research efforts, co-authored by one of the elder statesmen of the field, Alex Rosa. Finally, the research papers examine topics ranging from pure mathematics to applied work in computing, networking, communications, and cryptography. For students and newcomers to these topics, the volume provides accessible survey material that does not have onerous prerequisites. The breadth of topics reflects the vibrancy of the field in a way that can be appreciated by all researchers. The papers present important advances on theory and applications, which also benefit advanced researchers.

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