

Contents

New Bounds for Linear Codes of Covering Radius 2	1
<i>Daniele Bartoli, Alexander A. Davydov, Massimo Giulietti, Stefano Marcugini, and Fernanda Pambianco</i>	
Multidimensional Decoding Networks for Trapping Set Analysis	11
<i>Allison Beemer and Christine A. Kelley</i>	
Erasure Correction and Locality of Hypergraph Codes.	21
<i>Allison Beemer, Carolyn Mayer, and Christine A. Kelley</i>	
Reed-Muller Codes: Information Sets from Defining Sets.	30
<i>José Joaquín Bernal and Juan Jacobo Simón</i>	
Distance Properties of Short LDPC Codes and Their Impact on the BP, ML and Near-ML Decoding Performance.	48
<i>Irina E. Bocharova, Boris D. Kudryashov, Vitaly Skachek, and Yauhen Yakimenka</i>	
Decoding a Perturbed Sequence Generated by an LFSR.	62
<i>Sara D. Cardell, Joan-Josep Climent, and Alicia Roca</i>	
A Construction of Orbit Codes	72
<i>Joan-Josep Climent, Verónica Requena, and Xaro Soler-Escrivà</i>	
Analysis of Two Tracing Traitor Schemes via Coding Theory	84
<i>Elena Egorova and Grigory Kabatiansky</i>	
Reliable Communication Across Parallel Asynchronous Channels with Glitches	93
<i>Shlomo Engelberg and Osnat Keren</i>	
On the Kernel of \mathbb{Z}_2 -Linear Hadamard Codes	107
<i>Cristina Fernández-Córdoba, Carlos Vela, and Mercè Villanueva</i>	
Random Network Coding over Composite Fields	118
<i>Olav Geil and Daniel E. Lucani</i>	
Bounding the Minimum Distance of Affine Variety Codes Using Symbolic Computations of Footprints.	128
<i>Olav Geil and Ferruh Özbudak</i>	

On Binary Matroid Minors and Applications to Data Storage over Small Fields	139
<i>Matthias Grezet, Ragnar Freij-Hollanti, Thomas Westerbäck, and Camilla Hollanti</i>	
Absorbing Set Analysis of Codes from Affine Planes	154
<i>Kathryn Haymaker</i>	
Asymptotic Bounds for the Sizes of Constant Dimension Codes and an Improved Lower Bound.	163
<i>Daniel Heinlein and Sascha Kurz</i>	
On Quasi-Abelian Complementary Dual Codes.	192
<i>Somphong Jitman, Herbert S. Palines, and Romar B. dela Cruz</i>	
Relative Generalized Hamming Weights and Extended Weight Polynomials of Almost Affine Codes.	207
<i>Trygve Johnsen and Hugues Verdu</i>	
On the Performance of Block Woven Codes Constructions with Row-Wise Permutations	217
<i>Alexey Kreshchuk, Igor Zhilin, and Victor Zyablov</i>	
New Lower Bounds on Error-Correcting Ternary, Quaternary and Quinary Codes	228
<i>Antti Laaksonen and Patric R.J. Östergård</i>	
A State Space Approach to Periodic Convolutional Codes	238
<i>Diego Napp, Ricardo Pereira, and Paula Rocha</i>	
Column Rank Distances of Rank Metric Convolutional Codes	248
<i>Diego Napp, Raquel Pinto, Joachim Rosenthal, and Filipa Santana</i>	
On Minimality of ISO Representation of Basic 2D Convolutional Codes	257
<i>Raquel Pinto and Rita Simões</i>	
A New Construction of Minimum Distance Robust Codes	272
<i>Hila Rabii and Osnat Keren</i>	
Constructions and Bounds for Batch Codes with Small Parameters	283
<i>Eldho K. Thomas and Vitaly Skachek</i>	
Author Index	297

Coding Theory and Applications

5th International Castle Meeting, ICMCTA 2017, Vihula,

Estonia, August 28-31, 2017, Proceedings

Barbero, Á.I.; Skachek, V.; Ytrehus, Ø. (Eds.)

2017, X, 297 p. 29 illus., Softcover

ISBN: 978-3-319-66277-0