

LIST OF PUBLICATIONS

Ruizhong Wei

Refereed Journal Papers¹

1. X. Ma and R. Wei, The t -coefficient method III: a general series expansion for the product of theta functions with different bases and its applications, *Journal of Mathematical Analysis and Applications*, accepted.
2. Y. Zhang, W. Li and R. Wei, Yang Hui type magic squares with t -powered sum, *Ars Combinatoria*, accepted.
3. Y. Zhang and R. Wei, Pandiagonal multimagic squares based on large sets of orthogonal arrays, *Congressus Numerantium*, 226(2016), 165 - 175.
4. T. Feng, X. Wang and R. Wei, Semi-cyclic holey group divisible designs with block size three and applications to sampling designs and optical orthogonal codes, *J. Combin Des.*, 24 (2016), 201 - 222.
5. X. Ma, D.R. Stinson and R. Wei, An optimization problem for combinatorial key predistribution, *JCMCC*, accepted.
6. K. Chen, W. Li, G. Chen and R. Wei, Regular sparse anti-magic squares with maximum density, *Ars Combinatoria*, 127(2016), 167 - 183.
7. X. Wang, Y. Chang and R. Wei, Some direct constructions of cyclic $(3, \lambda)$ -GDD of type g^v having prescribed number of short orbits, *JCMCC* 89(2014), 3-21.
8. A. Agrawal and R. Wei, Scalable trust-based secure WSNs, *Journal of Computer and Communications*, 2(2014), 17-22.

¹Most of the journals are in the master journal list of ISI including: *Annals of Discrete Math.*, *Europ.J.Combinatorics*, *J.Combinatorial Designs*, *J.Statist.Plann.Infer.*, *Discrete Math.*, *SIAM J.Discrete Math.*, *Appl. Discrete Math.*, *J.Combinatorial Theory*, *IEEE Tran.Information Theory*, *Designs Codes and Cryptography*, etc.

9. K. Chen, G. Chen, W. Li and R. Wei, Super-simple balanced incomplete block designs with block size 5 and index 3, *Applied Discrete Math.*, 161 (2013), 2396-2404.
10. Z. Tian and R. Wei, Some large sets of cyclic triple systems, *Congressus Numerantium*, 211(2012), 97-131.
11. Z. Tian and R. Wei, Decomposing triples of \mathbb{Z}_{p^n} and \mathbb{Z}_{3p^n} into cyclic designs, *Acta Mathematica Sinica, English Series*, (2013), 1-18.
12. K. Chen and R. Wei, On super-simple cyclic 2-designs, *Ars Combinatoria, CIII*(2012), 257-277.
13. L. Wang, R. Wei and Z. Tian, Cluster based scheduling method for wireless sensor networks, *Science China Information Sciences*, 55(2012), 755-764.
14. J.H. Dinitz, M.B. Paterson, D.R. Stinson and R. Wei, Constructions for Retransmission permutation arrays, *Designs, Codes and Cryptography*, 65(2012) 325-351.
15. L. Sun, J. Li, S. Liu and R. Wei, Web applications testing framework based on multi-agent, *International Journal of Advancements in Computing Technology*, 3(2011), 403-412.
16. X. Wang, Y. Chang and R. Wei, Existence of cyclic $(3, \lambda)$ -GDD of type g^v having prescribed number of short orbits, *Discrete Math.* 311(2011), 663-675.
17. J. Li, J. Chen, L. Xiong and R. Wei, An automatic test database generation algorithm based on ROP, *J. Digital Content Technology and its Applications*, 5(2011), 238 - 248.
18. H. Cao, F. Yan and R. Wei, Super-simple Group Divisible Designs with Block Size 4 and Index 2, *J. Stat. Plann. Infer.*, 140(2010), 2497-2503.
19. L. Ji and R. Wei, The spectrum of 2-idempotent 3-quasigroups with conjugate invariant subgroups, *J. Combin Designs.*, 18(2010), 292-304.
20. L. Wang, R. Wei, Y. Lin and B. Wang, A clique base node scheduling method for wireless sensor networks, *Journal of Network and Computer Applications*, 33(2010), 383 -396.

21. L. Wang and R. Wei, Reputation model based dynamic pairwise key establishment scheme for sensor networks, *Ad hoc and sensor wireless networks*, 9 (2010), 163 - 177.
22. Z. Tian and R. Wei, Decomposing triples into cyclic designs, *Discrete Math.*, 310(2010) 700-713.
23. H. Cao, L. Wang and R. Wei, The existence of HGDDs with block size four and its application to double frames, *Discrete Math.*, 309(2009), 945-949.
24. H. Cao and R. Wei, Combinatorial constructions for optimal two-dimensional optical orthogonal codes, *IEEE Trans. Information Theory*, 55(2009), 1387-1394.
25. B.M. Paterson, D.R. Stinson and R. Wei, Combinatorial batch codes, *Advances in Mathematics of Communications*, 3(2009), 13-27.
26. H. Cao, J. Dinitz, D. Kreher, D.R. Stinson and R. Wei, On orthogonal generalized equitable rectangles, *Designs Codes and Cryptography*, 51(2009), 225-230.
27. R. Wei and K. Wu, Exception resolution services for Role Based Access Control systems, *Information Science*
28. D.R. Stinson, R. Wei and K. Chen, On generalized separating hash families, *J. Combinatorial Theory, A*, 115(2008), 105-120.
29. J.Wu and R. Wei, Comments on "Distributed symmetric key management for mobile ad hoc networks", *Information Processing Letters*, 109 (2009), 822-824 (doi: 10.1016/j.ipl.2009.04.005).
30. R. Wei, On cover-free families, *Discrete Math*, accepted.
31. H. Cao, K. Chen and R. Wei, Super-simple balanced incomplete block designs with block size 4 and index 5, *Discrete Math.* 309(2009) 2808-2814.
32. K. Chen and R. Wei, Super-simple $(v, 5, 4)$ designs, *Applied Discrete Math*, 155(2007) 904-913.

33. K. Chen and R. Wei, Super-simple cyclic designs with small values, *J. Statist. Plann. Inference*, 137(2007), 2034-2044.
34. Brian J. Cacic and R. Wei, Improving indirect key management schemes of access hierarchies, *International J. Network Security*, 4(2007), 128-137.
35. D.R. Stinson and R. Wei, Some results on query processes and reconstructions for unconditionally secure 2-server 1-round binary private information retrieval protocols, *Journal of Mathematical Cryptology* 1(2007), 33-46.
36. D. Deng, D.R. Stinson, P.C. Li, G.H.J. van Rees and R. Wei, Constructions and bounds for (m, t) -splitting systems, *Discrete Math.*, 307(2007), 18-37.
37. P.C. Li, D.R. Stinson, G.H.J. van Rees and R. Wei, On $\{123, 124, 134\}$ -free hypergraphs, *Congressus Numerantium*, 183(2006), 161-174.
38. P.C. Li, G.H.J. van Rees and R. Wei, 2-cover free families and related separating hash families, *JCD* 14(2006), 423-440.
39. K. Chen and R. Wei, A few more cyclic 2-Steiner designs, *E-J. Combinatorics* 13(2006) #R10.
40. K. Chen and R. Wei, Super-simple $(v, 5, 5)$ designs, *Designs, Codes and Cryptography*, 39(2006), 173-187.
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43. K. Chen, Z. Cao and R. Wei, Super-simple balanced incomplete block designs with block size 4 and index 6, *J. Statist. Plann. Inference*, 133(2005), 537-554.
44. G. Ge and R. Wei, HGDD with block size four, *Discrete Math.*, 279(2004), 267-276.

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48. G. Ge, J. Wang and R. Wei, MGDD with block size 4 and its applications to sampling designs, *Discrete Math*, 272(2003) 277-283.
49. K. Chen, R. Wei and L. Zhu, Existence of $(q, 7, 1)$ deference family with q prime powers, *J. Comb. Designs*, 10(2002), 126-138.
50. C. Blundo, B. Masucci, D.R. Stinson and R. Wei, Constructions and bounds for unconditionally secure non-interactive commitment schemes, *Designs Codes and Cryptography*, 26(2002), 97-110.
51. R. Wei, Cyclic BSEC with block size 3, *Discrete Math.*, 250(2002), 291-298.
52. Y. Chang, D. Bryant, C.A. Rodger and R. Wei, Two dimensional balanced sampling plan excluding contiguous units, *Communications in Statistics – Theory and Methods*, 31(2002), 1441-1455.
53. J.N. Staddon, D.R. Stinson and R. Wei, Combinatorial properties of frameproof and traceability codes, *IEEE Tran. Information Theory*, 47(2001),1042-1049.
54. D.R. Stinson, Tran van Trung and R. Wei, *Secure frameproof codes, key distribution patterns, group testing algorithms and related structures*, *Journal of Statistical Planning and Inference*, 86(2000), 595-617.
55. M. Atici, D.R. Stinson and R. Wei, *A new practical algorithm for the construction of a perfect hash function*, *J. Combin. Math. Combin. Computing*, 35(2000), 127-145.
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58. R. Wei *An $S(2, 3, 21)$ with three complete arcs*, Bulletin of the ICA, 29(2000), 97-98.
59. A.M. Assaf and R. Wei, *Modified group divisible designs with block size four and $\lambda = 1$* , Discrete Math., 195 (1999), 15-25.
60. F.E. Bennett, R. Wei and H. Zhang, *Holey Schröder designs of type 2^na^1* , J. Combinatorial Designs, 6(1998), 131-150.
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63. D.R. Stinson and R. Wei, *An application of ramp schemes to broadcast encryption*, Information Processing Letters, 69 (1999), 131-135.
64. R. Rees, D.R. Stinson, R. Wei and G.H.J. van Rees, *An application of coverings: determine the maximum consistent set of shares in a threshold scheme*, Ars Comb., 53(1999), 225-237.
65. F.E. Bennett and R. Wei, *The existence of Schröder designs with equal-sized holes*, Discrete Math., 170(1997), 15-28.
66. F.E. Bennett, R. Wei and L. Zhu, *Resolvable Mendelsohn Triple Systems with Equal Sized Holes*, J. Combinatorial Designs, 5(1997), 329-340.
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73. F.E. Bennett and R. Wei, *Embeddings of Resolvable Mendelsohn Triple Systems*, *J. Combin. Designs*, 4(1993) 281-299.
74. F.E. Bennett, R. Wei, J. Yin and A. Mahmood, *Existence of DBIBD with Block Size Six*, *Utilitas Math*, 43(1993), 205-217.
75. R. Wei, *The Embeddings of $S_3(2, 4, v)$* , *J. Comb. Math. Comb. Computing*, 9(1991), 11-32.
76. R. Wei and L. Zhu, *Embeddings of $S(2, 4, v)$* , *Europ. J. Combinatorics* (1989)10, 201-206.
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Refereed Conference Papers

78. X. Lin and R. Wei, *Vector signature for face recognition*, *Proceedings of CSCWD 2015*, 413-418.
79. K. Hou and R. Wei, *Indoor location based on WiFi*, *Proceedings of CSCWD 2015*, 331-336.
80. F. Nkemneme and R. Wei, *An multi-queue algorithm for DDoS attacks*, *Proceedings in CSCWD 2014*, 118-123.
81. E. Jimenez and R. Wei, *Indoor localization of ubiquitous heterogeneous devices*, *Proceedings of CSCWD 2013*, 698-703.
82. S-Y. Hsu and R. Wei, *The complexity of a data privacy protection algorithm*, *Proceedings of CSCWD 2011*, 61-68.

83. B. Wang and R. Wei, Zero-knowledge trust negotiation, Proceedings of CSCWD 09, 390-395.
84. R. Wei, Z. Mao and K. Yuan, Aperiodic Correlation for Complex Sequences from Difference Sets, Proceedings of International conference on communication (ICC 2008), 1190-1194.
85. Z. Liang and R. Wei, An efficient algorithm for data k -anonymization, Proceedings of CSCWD 08, 737-742. (12th International conference on computer supported cooperative work in design, April 16-18, 2008, Xi'an, China).
86. F. Tang and R. Wei, Implement Privacy for an OMS, Proceedings of CSCWD 08, 749-753. (12th International conference on computer supported cooperative work in design, April 16-18, 2008, Xi'an, China).
87. R. Wei and K. Wu, Exception resolution service for RBAC systems, Proceedings of CSCWD 07, pp 840-845. (11th International conference on computer supported cooperative work in design, April 26-28, 2007, Melbourne Australia).
88. A. Mohamed and R. Wei, Context dependent controller on performance metrics revision, Proceedings of ICCI 2006, pp. 507-516. (Fifth IEEE International Conference on Cognitive Information, July 17-19, 2006, Beijing China).
89. Siami N. Akbar, R. Wei, Weiming Shen and Hamada Ghenniwa, An efficient trust model for multi-agent systems, Proceedings of CSCWD2006, pp.659-664. (10th International conference on computer supported cooperative work in design, May 3-5, 2006, Nanjing, China.)
90. Siami N. Akbar, R. Wei, Weiming Shen and Hamada Ghenniwa, Applying Secret Sharing Schemes to Service Reputation, ICEIS-2005, Miami, May 25-28, 2005. (7th International Conference on Enterprise Information Systems)
91. X. Chen and R. Wei, A scheme for inference problems using rough sets and entropy, RSFDGrC 2005, LNCS 3642, 558-567.

92. J. Wu and R. Wei, An access control scheme for partially ordered set hierarchy with provable security, Proceedings of SAC'05, 223-245. LNCS 3897, 221-232.
93. X. Chen and R. Wei, A dynamic method for handling the inference problem in multilevel secure databases, Proceedings of ITCC-2005, 751-756, Las Vegas, April 2005. (International Conference on Information Technology: Coding and Computing).
94. R. Wei and J. Wu, Product construction of key distribution schemes for sensor networks, SAC'04, Waterloo, 2004, LNCS 3357, 280-293.
95. A.S. Namin, R. Wei, W. Shen and H. Ghenniwa, An agent-based threshold payment model for metering web services, WSABE, New York City, 2004.
96. C. Miao and R. Wei, Secret sharing for mobile agent cryptography, Proceedings of the 2003 Communication Networks & Services Research Conference (CNSR 2003), 93-100.
97. D.R. Stinson and R. Wei, *Key preassigned traceability schemes for broadcast encryption*, SAC'98, LNCS 1556, 144 - 156.
98. D.R. Stinson and R. Wei, *Unconditional secure proactive secret sharing scheme with combinatorial structures*, SAC'99, LNCS 1758, 200-214.
99. R. Wei, *Nonexistence of Some Abelian Difference Sets*, in: Combinatorial Designs and Applications (Eds. W.D. Wallis, et al), Marcel Dekker Inc., 159-164, 1990.

OTHER PUBLICATIONS

Chapters in book

100. D.R. Stinson, R. Wei and J. Yin, Packings, CRC Handbook of Combinatorial Designs, 2nd Edition (J.H. Dinitz, C.J. Colbourn, eds.), Chapman & Hall/CRC, 2007, 550-556.

Papers in preparation

101. D.R. Stinson and R. Wei, Combinatorial repairability for Threshold Schemes, submitted.
102. J. Bao, L. Ji, R. Wei and Y. Zhang, New necessary conditions for existence of strong external difference families, manuscript.
103. L. Liu and R. Wei, New parent-identifying codes with better asymptotic behavior, submitted.
104. Z. Cao and R. Wei, A fast modular reduction method based on table lookup, submitted.
105. L. Wang, R. Wei and D. Wang, Anisotropic voronoi tessellations based anti-monitoring algorithm in anisotropic sensory fields, submitted to Ad Hoc Networks.
106. S. Huang and R. Wei, Visual cryptography with cheating shares, in preparation.

Technical Reports

107. D.R. Stinson and R. Wei, Combinatorial repairability for Threshold Schemes, arXiv:1609.01240[math.CO].
108. R. Wei and Z. Zeng, KIST: An encryption algorithm based on splay, ePrint, 425(2010).
109. J.Wu and R. Wei, Comments on a INFORCOM paper, ePrint, 008(2005).
110. J.Wu and R. Wei, An access control scheme for partially ordered set hierarchies with provable security, ePrint, 293(2004).
111. D.R. Stinson, T. van Trung and R. Wei, Secure Frameproof Codes, Key Distribution Patterns, Group Testing Algorithms and Related Structures, CORR 98-01.

112. D.R. Stinson and R. Wei, An Application of Ramp Schemes to Broadcast Encryption, CORR 98-02.
113. D. R. Stinson and R. Wei, Key Preassigned Traceability Schemes for Broadcast Encryption, CORR 98-26.
114. D. Stinson and R. Wei, Bibliography on Authentication Codes, CORR 98-49.
115. D. Stinson and R. Wei, Bibliography on Secret Sharing Schemes, CORR 98-50.
116. D. Stinson and R. Wei, Determining the Maximum Consistent Set of Shares in a Threshold Scheme, CORR 99-10.
117. D. Stinson and R. Wei, Unconditionally Secure Proactive Secret Sharing Scheme with Combinatorial Structures, CORR 99-14.
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Conference Papers

119. R. Wei, Constructions of balanced sampling plan excluding contiguous units, CMS summer meeting, St. John's, Canada, 1999.