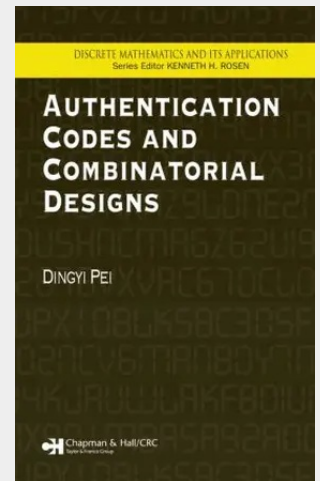


Authentication Codes and Combinatorial Designs

Researchers and practitioners of cryptography and information security are constantly challenged to respond to new attacks and threats to information systems. Authentication Codes and Combinatorial Designs presents new findings and original work on perfect authentication codes characterized in terms of combinatorial designs, namely strong partially balanced designs (SPBD). Beginning with examples illustrating the concepts of authentication schemes and combinatorial designs, the book considers the probability of successful deceptions followed by schemes involving three and four participants, respectively. From this point, the author constructs the perfect authentication schemes and explores encoding rules for such schemes in some special cases. Using rational normal curves in projective spaces over finite fields, the author constructs a new family of SPBD. He then presents some established combinatorial designs that can be used to construct perfect schemes, such as t-designs, orthogonal arrays of index unity, and designs constructed by finite geometry. The book concludes by studying definitions of perfect secrecy, properties of perfectly secure schemes, and constructions of perfect secrecy schemes with and without authentication. Supplying an appendix of construction schemes for authentication and secrecy schemes, Authentication Codes and Combinatorial Designs points to new applications of combinatorial designs in cryptography.

**125,50 €**

117,29 € (zzgl. MwSt.)

*Nicht mehr lieferbar***Artikelnummer:** 9781584884736**Medium:** Buch**ISBN:** 978-1-58488-473-6**Verlag:** Chapman and Hall/CRC**Erscheinungstermin:** 13.01.2006**Sprache(n):** Englisch**Auflage:** 1. Auflage 2006**Serie:** Discrete Mathematics and Its Applications**Produktform:** Gebunden**Gewicht:** 498 g**Seiten:** 256**Format (B x H):** 156 x 235 mm