Record Nr. UNINA9910790365003321 Autore Sinkov Abraham <1907-> Titolo Elementary cryptanalysis: a mathematical approach / / Abraham Sinkov [[electronic resource]] Washington:,: Mathematical Association of America,, 2009 Pubbl/distr/stampa **ISBN** 0-88385-937-8 Edizione [Second edition.] Descrizione fisica 1 online resource (xiv, 212 pages) : digital, PDF file(s) Collana Anneli Lax New Mathematical Library, , 2643-5586 ; ; v. 22 Anneli Lax new mathematical library;; v. 22 Disciplina 652.80151 Soggetti Cryptography - Mathematics Ciphers - Mathematics Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Note generali Title from publisher's bibliographic system (viewed on 02 Oct 2015). Nota di bibliografia Includes bibliographical references (p. 205-206) and index. Nota di contenuto 1. Monoalphabetic ciphers using additive alphabets -- 2. General monoalphabetic substitution -- 3. Polyalphabetic substitution -- 4. Polygraphic systems -- 5. Transposition -- 6. RSA encryption -- 7. Perfect security: one-time pads. Originally published in the New Mathematical Library almost half a Sommario/riassunto century ago, this charming book explains how to solve cryptograms based on elementary mathematical principles, starting with the Caesar cipher and building up to progressively more sophisticated substitution methods. Todd Feil has updated the book for the technological age by adding two new chapters covering RSA public-key cryptography, onetime pads, and pseudo-random-number generators. Exercises are given throughout the text that will help the reader understand the concepts and practice the techniques presented. Software to ease the drudgery of making the necessary calculations is made available. The book assumes minimal mathematical prerequisites and therefore explains from scratch such concepts as summation notation, matrix multiplication, and modular arithmetic. Even the mathematically

sophisticated reader, however, will find some of the exercises challenging. (Answers to the exercises appear in an appendix.)