

1. Record Nr.	UNINA9910464848103321
Autore	Rodman L.
Titolo	Topics in quaternion linear algebra // Leiba Rodman
Pubbl/distr/stampa	Princeton, New Jersey ; ; Oxfordshire, England : , : Princeton University Press, , 2014 ©2014
ISBN	1-4008-5274-9
Edizione	[Course Book]
Descrizione fisica	1 online resource (379 p.)
Collana	Princeton Series in Applied Mathematics
Classificazione	SK 230
Disciplina	512/.5
Soggetti	Algebras, Linear Quaternions Electronic books.
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Description based upon print version of record.
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Front matter -- Contents -- Preface -- Chapter One. Introduction -- Chapter Two. The algebra of quaternions -- Chapter Three. Vector spaces and matrices: Basic theory -- Chapter Four. Symmetric matrices and congruence -- Chapter Five. Invariant subspaces and Jordan form -- Chapter Six. Invariant neutral and semidefinite subspaces -- Chapter Seven. Smith form and Kronecker canonical form -- Chapter Eight. Pencils of hermitian matrices -- Chapter Nine. Skewhermitian and mixed pencils -- Chapter Ten. Indefinite inner products: Conjugation -- Chapter Eleven. Matrix pencils with symmetries: Nonstandard involution -- Chapter Twelve. Mixed matrix pencils: Nonstandard involutions -- Chapter Thirteen. Indefinite inner products: Nonstandard involution -- Chapter Fourteen. Matrix equations -- Chapter Fifteen. Appendix: Real and complex canonical forms -- Bibliography -- Index
Sommario/riassunto	Quaternions are a number system that has become increasingly useful for representing the rotations of objects in three-dimensional space and has important applications in theoretical and applied mathematics, physics, computer science, and engineering. This is the first book to provide a systematic, accessible, and self-contained exposition of quaternion linear algebra. It features previously unpublished research

results with complete proofs and many open problems at various levels, as well as more than 200 exercises to facilitate use by students and instructors. Applications presented in the book include numerical ranges, invariant semidefinite subspaces, differential equations with symmetries, and matrix equations. Designed for researchers and students across a variety of disciplines, the book can be read by anyone with a background in linear algebra, rudimentary complex analysis, and some multivariable calculus. Instructors will find it useful as a complementary text for undergraduate linear algebra courses or as a basis for a graduate course in linear algebra. The open problems can serve as research projects for undergraduates, topics for graduate students, or problems to be tackled by professional research mathematicians. The book is also an invaluable reference tool for researchers in fields where techniques based on quaternion analysis are used.

2. Record Nr.	UNISA996465824003316
Titolo	Financial Cryptography and Data Security [[electronic resource]] : 9th International Conference, FC 2005, Roseau, The Commonwealth Of Dominica, February 28 - March 3, 2005, Revised Papers // edited by Andrew S. Patrick, Moti Yung
Pubbl/distr/stampa	Berlin, Heidelberg : , : Springer Berlin Heidelberg : , : Imprint : Springer, , 2005
Edizione	[1st ed. 2005.]
Descrizione fisica	1 online resource (XII, 376 p.)
Collana	Security and Cryptology ; ; 3570
Disciplina	005.8/2
Soggetti	Cryptography Data encryption (Computer science) Operating systems (Computers) Electronic data processing—Management Computers and civilization Computer networks Algorithms Cryptology Operating Systems IT Operations Computers and Society Computer Communication Networks

Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Bibliographic Level Mode of Issuance: Monograph
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Threat and Attacks -- Fraud Within Asymmetric Multi-hop Cellular Networks -- Protecting Secret Data from Insider Attacks -- Countering Identity Theft Through Digital Uniqueness, Location Cross-Checking, and Funneling -- Invited Speaker -- Trust and Swindling on the Internet -- Digital Signing Methods -- Identity-Based Partial Message Recovery Signatures (or How to Shorten ID-Based Signatures) -- Time Capsule Signature -- Policy-Based Cryptography and Applications -- Panel -- A Chat at the Old Phishin' Hole -- Modeling and Preventing Phishing Attacks -- Helping the Phish Detect the Lure -- Who'd Phish from the Summit of Kilimanjaro? -- Privacy -- A Privacy-Protecting Coupon System -- Testing Disjointness of Private Datasets -- Hardware Oriented Mechanisms -- RFID Traceability: A Multilayer Problem -- Information-Theoretic Security Analysis of Physical Uncloneable Functions -- Supporting Financial Transactions -- Risk Assurance for Hedge Funds Using Zero Knowledge Proofs -- Probabilistic Escrow of Financial Transactions with Cumulative Threshold Disclosure -- Systems, Applications, and Experiences -- Views, Reactions and Impact of Digitally-Signed Mail in e-Commerce -- Securing Sensitive Data with the Ingrian DataSecure Platform -- Ciphire Mail Email Encryption and Authentication -- Message Authentication -- A User-Friendly Approach to Human Authentication of Messages -- Approximate Message Authentication and Biometric Entity Authentication -- Exchanges and Contracts -- Analysis of a Multi-party Fair Exchange Protocol and Formal Proof of Correctness in the Strand Space Model -- Achieving Fairness in Private Contract Negotiation -- Auctions and Voting -- Small Coalitions Cannot Manipulate Voting -- Efficient Privacy-Preserving Protocols for Multi-unit Auctions -- Event Driven Private Counters -- Works in Progress -- Secure Distributed Human Computation -- Secure Multi-attribute Procurement Auction -- Audit File Reduction Using N-Gram Models -- User Authentication -- Interactive Diffie-Hellman Assumptions with Applications to Password-Based Authentication -- Secure Biometric Authentication for Weak Computational Devices -- Panel Summary: Incentives, Markets and Information Security.
Sommario/riassunto	The 9th International Conference on Financial Cryptography and Data Security (FC 2005) was held in the Commonwealth of Dominica from February 28 to March 3, 2005. This conference, organized by the International Financial Cryptography Association (IFCA), continues to be the premier international forum for research, exploration, and debate regarding security in the context of finance and commerce. The conference title and scope was expanded this year to cover all aspects of securing transactions and systems. The goal is to build an interdisciplinary meeting, bringing together cryptographers, data-security specialists, business and economy researchers, as well as economists, IT professionals, implementers, and policy makers. We think that this goal was met this year. The conference received 90 submissions and 24 papers were accepted, 22 in the Research track and 2 in the Systems and Applications track. In addition, the conference featured two distinguished invited speakers, Bezalel Gavish and Lynne Coventry, and two interesting panel sessions, one on phishing and the other on economics and information security. Also, for the first time,

some of the papers that were judged to be very strong but did not make the final program were selected for special invitation to our Works in Progress (Rump) Session that took place on Wednesday evening. Three papers were highlighted in this forum this year, and short versions of the papers are included here. As always, other conference attendees were also invited to make presentations during the rump session, and the evening lived up to its colorful reputation.
