

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 It features previously unpublished research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.	UNINA9910464487503321
Autore	Archibald J. David
Titolo	Aristotle's ladder, Darwin's tree : the evolution of visual metaphors for biological order / / J. David Archibald
Pubbl/distr/stampa	West Sussex, England : , : Columbia University Press, , 2014 ©2014
ISBN	0-231-53766-2
Descrizione fisica	1 online resource (257 p.)
Disciplina	570.1
Soggetti	Biology - Philosophy Human evolution - Philosophy Imagery (Psychology) Metaphor 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 -- Acknowledgments -- Chapter

One. Blaming Aristotle -- Chapter Two. The Roots of the Tree of Life -- Chapter Three. Competing Visual Metaphors -- Chapter Four. Deciphering Darwin's Trees -- Chapter Five. The Gilded Age of Evolutionary Trees -- Chapter Six. The Waning and Waxing of Darwinian Trees -- Chapter Seven. Three Revolutions in Tree Building -- Chapter Eight. The Paragon of Animals -- References -- Index

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## Sommario/riassunto

Leading paleontologist J. David Archibald explores the rich history of visual metaphors for biological order from ancient times to the present and their influence on humans' perception of their place in nature, offering uncommon insight into how we went from standing on the top rung of the biological ladder to embodying just one tiny twig on the tree of life. He begins with the ancient but still misguided use of ladders to show biological order, moving then to the use of trees to represent seasonal life cycles and genealogies by the Romans. The early Christian Church then appropriated trees to represent biblical genealogies. The late eighteenth century saw the tree reclaimed to visualize relationships in the natural world, sometimes with a creationist view, but in other instances suggesting evolution. Charles Darwin's *On the Origin of Species* (1859) exorcised the exclusively creationist view of the "tree of life," and his ideas sparked an explosion of trees, mostly by younger acolytes in Europe. Although Darwin's influence waned in the early twentieth century, by midcentury his ideas held sway once again in time for another and even greater explosion of tree building, generated by the development of new theories on how to assemble trees, the birth of powerful computing, and the emergence of molecular technology. Throughout Archibald's far-reaching study, and with the use of many figures, the evolution of "tree of life" iconography becomes entwined with our changing perception of the world and ourselves.

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3. Record Nr.	UNINA9910794115903321
Autore	Sowell Thomas <1930->
Titolo	Barbarians inside the gates : and other controversial essays / / Thomas Sowell
Pubbl/distr/stampa	Stanford, California : , : Hoover Institution Press, , 1999
ISBN	0-8179-9583-8
Descrizione fisica	1 online resource (279 pages)
Disciplina	973.92
Soggetti	United States Civilization 1970- United States Politics and government 1993-2001 United States Social conditions 1980-2020
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia