1. Record Nr.   UNINA9910792488003321

   Autore   Blyth T. S (Thomas Scott)

   Titolo   Basic Linear Algebra [[electronic resource] /] / by Thomas S. Blyth,
                        Edmund F. Robertson

   Pubbl/distr/stampa   London : , : Springer London : , : Imprint : Springer, , 1998

   ISBN   1-4471-3496-6

   Edizione   [1st ed. 1998.]

   Descrizione fisica   1 online resource (XI, 201 p.)

   Collana   Springer Undergraduate Mathematics Series, , 1615-2085

   Disciplina   512/.5

   Soggetti   Algebra
                        Mathematics
                        Matrix theory
                        Mathematics, general
                        Linear and Multilinear Algebras, Matrix Theory

   Lingua di pubblicazione   Inglese

   Formato   Materiale a stampa

   Livello bibliografico   Monografia

   Note generali   Includes index.

   Nota di contenuto   1. The Algebra of Matrices -- 2. Some Applications of Matrices -- 3.
                        Systems of Linear Equations -- 4. Invertible Matrices -- 5. Vector
                        Spaces -- 6. Linear Mappings -- 7. The Matrix Connection -- 8.
                        Determinants -- 9. Eigenvalues and Eigenvectors -- 10. The Minimum
                        Polynomial -- 11. Solutions to the Exercises.

   Sommario/riassunto   Basic Linear Algebra is a text for first year students, working from
                        concrete examples towards abstract theorems, via tutorial-type
                        exercises. The book explains the algebra of matrices with applications
                        to analytic geometry, systems of linear equations, difference equations,
                        and complex numbers. Linear equations are treated via Hermite normal
                        forms, which provides a successful and concrete explanation of the
                        notion of linear independence. Another highlight is the connection
                        between linear mappings and matrices, leading to the change of basis
                        theorem which opens the door to the notion of similarity. The authors
                        are well known algebraists with considerable experience of teaching
                        introductory courses on linear algebra to students at St Andrews. This
                        book is based on one previously published by Chapman and Hall, but it
                        has been extensively updated to include further explanatory text and
                        fully worked solutions to the exercises that all 1st year students should

be able to answer.