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Note generali	Includes index
Nota di contenuto	Front Cover; The Linear Algebra Survival Guide: Illustrated with Mathematica; Copyright; About the Matrix Plot; Table of Contents; Preface; Dedication; About the Author; Introduction; Chapter 1: A; Addition of Matrices ; Adjacency Matrix ; Adjoint Matrix ; Adjoint Transformation ; Adjugate of a Matrix ; Affine Transformation ; Algebraic Multiplicity of an Eigenvalue ; Angle ; Area of a Parallelogram ; Area of a Triangle ; Array ; Arrow ; Augmented Matrix ; Chapter 2: B; Back Substitution ; Band Matrix ; Basic Variable of a Linear System ; Basis of a Vector Space Bijective Linear Transformation Bilinear Functional ; Chapter 3: C; Cartesian Product of Vector Spaces ; Cauchy-Schwarz Inequality ; Cayley-Hamilton Theorem ; Change-of-Basis Matrix ; Characteristic Polynomial ; Cholesky Decomposition ; Codimension of a Vector Subspace ; Codomain of a Linear Transformation ; Cofactor Matrix ; Column Space ; Column Vector ; Companion Matrix ; Complex Conjugate ; Composition of Linear Transformations ; Condition Number of a Matrix ; Congruence Transformation ; Congruent Symmetric Matrices ; Conjugate Transpose ; Consistent Linear System Contraction Along a Coordinate Axis Coordinate Conversion Matrix ; Coordinate System ; Coordinate Vector ; Correlation Coefficient ; Correlation Matrix ; Cosine of an Angle ; Covariance ; Covariance Matrix ; Cramer's Rule ; Cross Product ; Chapter 4: D; Defective Matrix ;

Determinant ; Diagonal ; Diagonal Decomposition ; Diagonal Matrix ;
 Diagonal of a Matrix ; Difference Equation ; Dimension of a Vector
 Space ; Dimensions of a Matrix ; Dirac Matrix ; Direct Sum of Vector
 Spaces ; Discrete Fourier Transform ; Discriminant of a Hessian Matrix ;
 Disjoint Subspaces
 Distance Between a Point and a Plane Distance Function ; Domain of a
 Linear Transformation ; Dot Product ; Dual Space ; Chapter 5: E;
 Echelon Form ; Eigenspace ; Eigenvalue ; Eigenvector ; Elementary
 Matrix ; Elementary Row Operation ; Euclidean Distance ; Euclidean
 Norm ; Euclidean Space ; Exact Solution ; Expansion Along a Coordinate
 Axis ; Exponential Form of Complex Numbers ; Chapter 6: F; Finite-
 Dimensional Vector Space ; Forward Substitution ; Fourier Matrix ;
 Fourier Transform ; Fredholm's Theorem ; Free Variable of a Linear
 System ; Frobenius Companion Matrix ; Frobenius Norm
 Full Rank of a Matrix Fundamental Subspace ; Fundamental Theorem of
 Algebra ; Chapter 7: G; Gaussian Elimination ; Gauss-Jordan Elimination
 ; General Solution of a Linear System ; Geometric Multiplicity of an
 Eigenvalue ; Geometric Transformation ; Gram-Schmidt Process ;
 Chapter 8: H; Hankel Matrix ; Height of a Column Vector ; Hermitian
 Inner Product ; Hermitian Matrix ; Hessenberg Matrix ; Hessian Matrix ;
 Hilbert Matrix ; Homogeneous Coordinate ; Homogeneous Linear
 System ; Householder Matrix ; Chapter 9: I; Identity Matrix ; Ill-
 Conditioned Matrix ; Image of a Linear Transformation
 Incidence Matrix

Sommario/riassunto

The Linear Algebra Survival Guide is a reference book with a free
 downloadable Mathematica notebook containing all of interactive code
 to make the content of the book playable in Mathematica and the
 Mathematica Player. It offers a concise introduction to the core topics
 of linear algebra which includes numerous exercises that will
 accompany a first or second course in linear algebra. This book will
 guide you through the powerful graphic displays and visualization of
 Mathematica that make the most abstract theories seem simple--
 allowing you to tackle realistic problems using simple mathematic
