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Soggetti	Control theory System analysis Linear control systems Electronic books.
Lingua di pubblicazione	Inglese
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Nota di bibliografia	Includes bibliographical references and index
Nota di contenuto	Introduction and Overview; Review of Basic Concepts and Results from Theoretical Linear Algebra; Fundamental Tools and Concepts from Numerical Linear Algebra; Canonical Forms Obtained via Orthogonal Transformations; Linear State Space Models and Solutions of the State Equations; Contollability, Observability and Distance to Uncontrollability; Stability, Inertia and Robust Stability; Numerical Solutions and Conditioning of Lyapunov and Sylvester Equations; Realization and Subspace Identification; Feedback Stabilization, Eigenvalue Assignment and Optimal Control; Numerical Methods and Conditioning of the Eigenvalue Assignment Problems; State Estimation; Numerical Solutions and Conditioning of Algebraic Riccati Equations; Internal Balancing and Model Reduction; Large-Scale Matrix Computations in Control: Krylov Subspace Methods; Numerical Methods for Matrix-Second-Order Control Systems; Existing Software for Control Systems Design and Analysis
Sommario/riassunto	Numerical Methods for Linear Control Systems Design and Analysis is an interdisciplinary textbook aimed at systematic descriptions and implementations of numerically-viable algorithms based on well-established, efficient and stable modern numerical linear techniques for

mathematical problems arising in the design and analysis of linear control systems both for the first- and second-order models. MATLAB-based software is included for implementing all of the major algorithms from the book. \* Unique coverage of modern mathematical concepts such as parallel computations, second-order systems, and large-scale solutions \* Background material in linear algebra, numerical linear algebra, and control theory included in text \* Step-by-step explanations of the algorithms and examples \* Includes MATLAB-based solution software

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