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Nota di contenuto	1. Introduction -- 2. Finite-Time Stability and Stabilization for Discrete-Time Jumping Systems -- 3. Finite-Time Stability and Stabilization for Jumping Systems Governed by Deterministic Switches -- 4. Finite-Time Stability and Stabilization for Jumping Systems with Non-Homogenous Transition Probabilities -- 5. Finite-Time H-Infinity Control for Multi-Mode Jumping Systems -- 6. Sliding Mode Control for Jumping Systems in Finite Time Domain -- 7. Finite-Time Multiple Frequency Control for Jumping Systems Based on De-Randomization -- 8. Self-Triggered Finite-Time Control for Multi-Mode Jumping Systems -- 9. High-Order Moment Stabilization for Jumping Systems in Finite Time Domain -- 10. Conclusion.
Sommario/riassunto	This book provides robust analysis and synthesis tools for Markovian jump systems in the finite-time domain with specified performances. It explores how these tools can make the systems more applicable to fields such as economic systems, ecological systems and solar thermal central receivers, by limiting system trajectories in the desired bound in a given time interval. Robust Control for Discrete-Time Markovian Jump Systems in the Finite-Time Domain focuses on multiple aspects of

finite-time stability and control, including: finite-time H-infinity control; finite-time sliding mode control; finite-time multi-frequency control; finite-time model predictive control; and high-order moment finite-time control for multi-mode systems and also provides many methods and algorithms to solve problems related to Markovian jump systems with simulation examples that illustrate the design procedure and confirm the results of the methods proposed. The thorough discussion of these topics makes the book a useful guide for researchers, industrial engineers and graduate students alike, enabling them systematically to establish the modeling, analysis and synthesis for Markovian jump systems in the finite-time domain.