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	Nota di contenuto	Introduction -- Fixed-Time Stability and Stabilization -- Fixed-Time Cooperative Control for First-Order Multi-Agent Systems -- Fixed-Time Cooperative Control for Second-Order Multi-Agent Systems -- Fixed-Time Cooperative Control for High-Order Multi-Agent Systems -- Fixed-Time Cooperative Control for Nonholonomic Chained-Form Multi-Agent Systems -- Distributed Optimization: And Edge-Based Fixed-Time Consensus Approach -- Distributed Optimization With Preserved Network Connectivity.
	Sommario/riassunto	This monograph presents new theories and methods for fixed-time cooperative control of multi-agent systems. Fundamental concepts of

fixed-time stability and stabilization are introduced with insightful understanding. This book presents solutions for several problems of fixed-time cooperative control using systematic design methods. The book compares fixed-time cooperative control with asymptotic cooperative control, demonstrating how the former can achieve better closed-loop performance and disturbance rejection properties. It also discusses the differences from finite-time control, and shows how fixed-time cooperative control can produce the faster rate of convergence and provide an explicit estimate of the settling time independent of initial conditions. This monograph presents multiple applications of fixed-time control schemes, including to distributed optimization of multi-agent systems, making it useful to students, researchers and engineers alike.