

1. Record Nr.	UNISA996466553503316
Titolo	Stabilization of distributed parameter systems : design methods and applications // Grigory Sklyar, Alexander Zuyev, editors
Pubbl/distr/stampa	Cham, Switzerland : , : Springer, , [2021] ©2021
ISBN	3-030-61742-4
Edizione	[1st ed. 2021.]
Descrizione fisica	1 online resource (IX, 135 p. 32 illus., 22 illus. in color.)
Collana	ICIAM 2019 SEMA SIMAI Springer Series, , 2662-7183 ; ; 2
Disciplina	629.8312
Soggetti	Distributed parameter systems Teoria de control Congressos Llibres electrònics
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di contenuto	1. Barkhayev, P. et al, Conditions of Exact Null Controllability and the Problem of Complete Stabilizability for Time-Delay Systems -- 2. Gugat, M. et al., The finite-time turnpike phenomenon for optimal control problems: Stabilization by non-smooth tracking terms -- 3. Kalosha, J. et al., On the eigenvalue distribution for a beam with attached masses -- 4. Macchelli, A. et al., Control design for linear port-Hamiltonian boundary control systems. An overview. -- 5. Otto, E. et al., Nonlinear Control of Continuous Fluidized Bed Spray Agglomeration Processes. -- 6. Sklyar, G. et al., On polynomial stability of certain class of $C_0$ semigroups -- 7. Woniak, J. et al., Existence of optimal stability margin for weakly damped beams -- 8. Zuyev, A. et al., Stabilization of crystallization models governed by hyperbolic systems.
Sommario/riassunto	This book presents recent results and envisages new solutions of the stabilization problem for infinite-dimensional control systems. Its content is based on the extended versions of presentations at the Thematic Minisymposium "Stabilization of Distributed Parameter Systems: Design Methods and Applications" at ICIAM 2019, held in Valencia from 15 to 19 July 2019. This volume aims at bringing

together contributions on stabilizing control design for different classes of dynamical systems described by partial differential equations, functional-differential equations, delay equations, and dynamical systems in abstract spaces. This includes new results in the theory of nonlinear semigroups, port-Hamiltonian systems, turnpike phenomenon, and further developments of Lyapunov's direct method. The scope of the book also covers applications of these methods to mathematical models in continuum mechanics and chemical engineering. It is addressed to readers interested in control theory, differential equations, and dynamical systems.

---