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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.