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Nota di contenuto	Generalized oscillatory space in time scales and applications -- Some insights on the practical control of hyperbolic systems -- Observers for data assimilation and parameter estimation -- On the path to deciphering the helffer-nier conjecture -- Geometric inverse problem for the navier-stokes equations -- An inverse problem for the wave equation in anisotropic media -- Stability estimates for initial data in general ornstein-uhlenbeck equations -- A note on the fast stabilization of controlled discretized vlasov-poisson system -- Mathematical control of the salwater intrusion in coastal aquifers -- Some insights into partial pole placement method in observers design for time-delay systems -- On exponential stability of a delayed thermoelastic system -- Design of quasipolynomial-based controllers with dynamical parameters application to active vibration damping --

Sommario/riassunto

This volume presents a timely overview of control theory and inverse problems, and highlights recent advances in these active research areas. The chapters are based on talks given at the spring school "Control Theory & Inverse Problems" held in Monastir, Tunisia in May 2023. In addition to providing a snapshot of these two areas, chapters also highlight breakthroughs on more specific topics, such as: Control of hyperbolic systems The Helffer-Nier Conjecture Rapid stabilization of the discretized Vlasov system Exponential stability of a delayed thermoelastic system Control Theory and Inverse Problems will be a valuable resource for both established researchers as well as more junior members of the community.