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Titolo	Attractive Ellipsoids in Robust Control // by Alexander Poznyak, Andrey Polyakov, Vadim Azhmyakov
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Collana	Systems & Control: Foundations & Applications, , 2324-9749
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Note generali	Description based upon print version of record.
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	1. Introduction -- 2. Mathematical Backgrounds -- 3. Robust State Feedback Control -- 4. Robust Output Feedback Control -- 5. Control with Sample-Data Measurements -- 6. Sample Data and Quantifying Output Control -- 7. Robust Control of Implicit Systems -- 8. Attractive Ellipsoids in Sliding Mode control -- 9. Robust Stabilization of Time-Delay Systems -- 10. Robust Control of Switched Systems -- 11. Bounded Robust Control -- 12. Attractive Ellipsoid Method with Adaptation.
Sommario/riassunto	This monograph introduces a newly developed robust-control design technique for a wide class of continuous-time dynamical systems called the "attractive ellipsoid method." Along with a coherent introduction to the proposed control design and related topics, the monograph studies nonlinear affine control systems in the presence of uncertainty and presents a constructive and easily implementable control strategy that guarantees certain stability properties. The authors discuss linear-style feedback control synthesis in the context of the above-mentioned systems. The development and physical implementation of high-performance robust-feedback controllers that work in the absence of complete information is addressed, with numerous examples to illustrate how to apply the attractive ellipsoid method to mechanical and electromechanical systems. While theorems are proved systematically, the emphasis is on understanding and applying the

theory to real-world situations. Attractive Ellipsoids in Robust Control will appeal to undergraduate and graduate students with a background in modern systems theory as well as researchers in the fields of control engineering and applied mathematics.

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