Record Nr. UNINA9910782395503321 Dynamics with friction [[electronic resource]]: modeling, analysis and **Titolo** experiment . Part II / / editors, Ardeshir Guran, Friedrich Pfeiffer, Karl Popp River Edge, NJ,: World Scientific Pub., 2001 Pubbl/distr/stampa **ISBN** 1-281-95672-4 9786611956721 981-281-127-3 Descrizione fisica 1 online resource (329 p.) Series on stability, vibration and control of systems. Series B;;7 Collana Altri autori (Persone) GuranA (Ardeshir) PfeifferFriedrich <1935-> **PoppKarl** Disciplina 531.1134 Soggetti Friction **Dynamics** Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Note generali Includes index. Nota di bibliografia Includes bibliographical references. Preface; Contributors; Contents; DYNAMICS WITH FRICTION: MODELING Nota di contenuto ANALYSIS AND EXPERIMENTS PART II: Chapter 1: Interaction of Vibration and Friction at Dry Sliding Contacts; 1. Introduction; 2. Normal Vibration and Friction at Hertzian Contacts; 3. Normal Vibration and Friction at Rough Planar Contacts; 4. Normal and Angular Vibrations at Rough Planar Contacts; 5. Stability Analysis; 6. Chaotic Vibration and Friction; 7. Conclusions; 8. References; Chapter 2: Vibrations and Friction-Induced Instability in Discs; 1. Introduction; 2. Disc Vibrations and Critical Speeds 3. Excitation by a Transverse-Spring-Damper System 4. Follower Force Friction Models: 5. Friction-Induced Parametric Resonances: 6. Parametric Excitation by a Frictional Follower Force with a Negative u-Velocity Characteristic; 7. Closure; Acknowledgment; References; Chapter 3: Dynamics of Flexible Links in Kinematic Chains; 1. Introduction: 2. Kinematics and Kinetics of Flexible Bodies in General

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Sommario/riassunto

The dynamics of dissipative mechanical and structural systems is being investigated at various institutions and laboratories worldwide with ever-increasing sophistication of modeling, analysis and experiments. This book offers a collection of contributions from these research centers that represent the state-of-the-art in the study of friction oscillators. It provides the reader with the fruits of a team effort by leaders in this fascinating field. The present part II of this volume on Dynamics with Friction is a continuation of the previous part I, and is designed to help synthesize our curren