

1.	Record Nr.	UNISA990003142070203316
	Titolo	Inflationary cosmology / Martin Lemoine, Jerome Martin, Patrick Peter (Eds.)
	Pubbl/distr/stampa	Berlin [etc.] : Springer, copyr. 2008
	ISBN	978-3-540-74352-1
	Descrizione fisica	X, 428 p. : ill. ; 24 cm
	Collana	Lecture notes in physics ; 738
	Disciplina	523.2
	Soggetti	Cosmologia
	Collocazione	530 LNP 738
	Lingua di pubblicazione	Inglese
	Formato	Materiale a stampa
	Livello bibliografico	Monografia
2.	Record Nr.	UNICAMPANIAVAN00125038
	Titolo	The Lvov-Warsaw School. Past and Present / Ángel Garrido, Urszula Wybraniec-Skardowska editors
	Pubbl/distr/stampa	Cham, : Birkhäuser, 2018
	Titolo uniforme	The Lvov-Warsaw School. Past and Present
	Descrizione fisica	xviii, 815 p. : ill. ; 24 cm
	Soggetti	01A72 - Schools of mathematics [MSC 2020] 03-XX - Mathematical logic and foundations [MSC 2020]
	Lingua di pubblicazione	Inglese
	Formato	Materiale a stampa
	Livello bibliografico	Monografia

3. Record Nr.	UNINA9911019860803321
Autore	Pfeiffer Friedrich <1935->
Titolo	Multibody dynamics with unilateral contacts / / Friedrich Pfeiffer, Christoph Glocker
Pubbl/distr/stampa	Weinheim, : Wiley-VCH, 2004
ISBN	9786611843298 9781281843296 1281843296 9783527618385 3527618384 9783527618392 3527618392
Descrizione fisica	1 online resource (331 p.)
Collana	Wiley Series in Nonlinear Science ; ; v.23
Altri autori (Persone)	GlockerChristoph
Disciplina	621.8/11 621.811
Soggetti	Machinery, Dynamics of Nonlinear systems
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Description based upon print version of record.
Nota di bibliografia	Includes bibliographical references (p. 307-314) and index.
Nota di contenuto	MULTIBODY DYNAMICS WITH UNILATERAL CONTACTS; CONTENTS; PART 1: Theory; 1 Introduction; 1.1 Modeling Mechanical Systems; 1.2 Single-Contact Dynamics; 1.3 Multiple-Contact Dynamics; 2 Multibody Kinematics; 2.1 Geometry and Definitions; 2.2 Time Derivations; 2.3 Velocities and Accelerations; 2.4 Recursive Methods; 3 Dynamics of Rigid Body Systems; 3.1 Equations of Motion; 3.2 Nonlinear Applied Forces; 3.2.1 Some Remarks; 3.2.2 Couplings by Force Laws; 3.2.3 Some Examples; 4 Contact Kinematics; 4.1 Contour Geometry; 4.2 The Distance between Bodies 4.3 The Relative Velocities of the Contact Points4.4 Changes of the Relative Velocities; 4.5 Evaluation of the Contact Kinematics; 4.6 Example: Contact Problem of a Parabola and a Straight Line; 5 Multiple Contact Configurations; 5.1 Superimposed Constraints; 5.2 Minimal Coordinates and Friction; 5.3 Example: The Sliding Rod; 5.4 Example: A Pantograph Mechanism; 6 Detachment and Stick-Slip Transitions; 6.1

Contact Law for Normal Constraints; 6.2 Coulomb's Friction Law; 6.3 Decomposition of the Tangential Characteristic; 6.4 The Linear Complementarity Problem
 6.5 Example: The Detachment Transition 6.6 Example: The Stick-Slip Transition; 7 Frictionless Impacts by Newton's Law; 7.1 Assumptions and Basic Equations; 7.2 Newton's Impact Law; 7.3 Energy Considerations; 7.4 Example: Impact between Two Point Masses; 7.5 Example: Double Impact on a Rod; 8 Impacts with Friction by Poisson's Law; 8.1 Assumptions and Basic Equations; 8.2 Phase of Compression; 8.3 Phase of Expansion; 8.4 Energy Considerations; 8.5 Conservation of Energy; 8.6 Comparison of Newton's and Poisson's Laws; 8.7 Decomposition of an Asymmetric Characteristic
 8.8 An LCP Formulation for Compression 8.9 An LCP Formulation for Expansion; 8.10 Remarks on Impacts with Friction; 8.11 Example: Double Impact on a Rod; 8.12 Example: Poisson's Law in the Frictionless Case; 8.13 Example: Reversible Tangential Impacts; 8.14 Example: Poisson's Law and Coulomb Friction; 9 The Corner Law of Contact Dynamics; PART 2: Applications; 10 Introduction; 11 Applications with Discontinuous Force Laws; 11.1 Hammering in Gears; 11.1.1 Modeling; 11.1.2 Evaluation of the Simulations; 11.1.3 Results
 11.2 Overloads in Gears due to Short-circuit and Malsynchronization in a Generator 11.2.1 Introduction; 11.2.2 The Equations of Motion; 11.2.3 Solution Procedure; 11.2.4 Force Elements; 11.2.5 Synchronous Generator; 11.2.6 Simulation and Results; 12 Applications with Classical Impact Theory; 12.1 Gear Rattling; 12.1.1 Introduction; 12.1.2 Gearbox Model; 12.1.3 Results; 12.1.4 Parameter Dependence of Mean Values; 12.1.5 Experimental Results; 12.2 A Ship-Turning Gear; 12.3 Dynamics of a Synchronizer; 12.3.1 Introduction; 12.3.2 Operation of a Synchronizer
 12.3.3 Mechanical and Mathematical Models

Sommario/riassunto

As mechanical systems become more complex so do the mathematical models and simulations used to describe the interactions of their parts. One area of multibody theory that has received a great deal of attention in recent years is the dynamics of multiple contact situations occurring in continuous joints and couplings. Despite the rapid gains in our understanding of what occurs when continuous joints and couplings interact, until now there were no books devoted exclusively to this intriguing phenomenon. Focusing on the concerns of practicing engineers, *Multibody Dynamics with Unilateral Contact*