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Collana	Lecture Notes in Mechanical Engineering, , 2195-4364
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Soggetti	Machinery Mechanics, Applied Solids Mathematics - Data processing Machinery and Machine Elements Solid Mechanics Computational Science and Engineering
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Nota di bibliografia	Includes bibliographical references at the end of each chapters and index.
Nota di contenuto	The Combined Cold Axial Rotary Forging of Thick Hollow Flanges -- Bench Tests of Vibroacoustic Effects -- Stability of Walking Algorithms -- Deleting Objects Algorithm for the Optimization of Orthogonal Packing Problems -- Computational Technique of Plotting Campbell Diagrams for Turbine Blades -- Computer Simulation of Mechanisms -- Principle of Compatibility of Heterogeneous Additives in Triboactive Metalworking Fluids for Edge Cutting of Metals -- Some Ways of Stable Counterbalancing in Respect to Moving Masses on Centrifuges -- Self-Oscillations of Machines and Mechanisms -- Analysis of Machine Tool Installation on the Base -- About the Nature Of Dissipative Processes in Cutting Treatments of Titanium vanes -- The Model of the Elastic-Plastic Deformation of a Structural Member -- Parametric Vibrations Excitation in Cyclic Mechanisms -- Theoretical and Practical Conditions of Fully-Reversible Rotation in Bennett Mechanisms -- Dislocation-

phonon Mechanism and Interpolation Dependence of Fatigue-Damaged Structural Steel -- Calculation of Shells of Revolution with Arbitrary Meridian Oscillations.

Sommario/riassunto

This book draws together the most interesting recent results to emerge in mechanical engineering in Russia, providing a fascinating overview of the state of the art in the field in that country which will be of interest to a wide readership. A broad range of topics and issues in modern engineering are discussed, including dynamics of machines, materials engineering, structural strength and tribological behavior, transport technologies, machinery quality and innovations. The book comprises selected papers presented at the conference "Modern Engineering: Science and Education", held at the Saint Petersburg State Polytechnic University in 2016 with the support of the Russian Engineering Union. The authors are experts in various fields of engineering, and all of the papers have been carefully reviewed. The book will be of interest to mechanical engineers, lecturers in engineering disciplines and engineering graduates.
