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Descrizione fisica	1 online resource (305 p.)
Collana	Springer textbook
Disciplina	620.103
Soggetti	Mechanical engineering Civil engineering Electrical engineering Materials science Physics Astronomy Mathematics Mechanical Engineering Civil Engineering Electrical and Electronic Engineering Materials Science Physics and Astronomy
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Includes index.
Nota di contenuto	Introduction -- Basic Concepts -- Forces with a Common Point of Application -- General Systems of Forces, Equilibrium of a Rigid Body -- Center of Gravity, Center of Mass, Centroids -- Support Reactions -- Trusses -- Beams, Frames, Arches -- Work and Potential Energy -- Static and Kinetic Friction.
Sommario/riassunto	Statics is the first volume of a three-volume textbook on Engineering Mechanics. The authors, using a time-honoured straightforward and flexible approach, present the basic concepts and principles of mechanics in the clearest and simplest form possible to advanced undergraduate engineering students of various disciplines and different

educational backgrounds. An important objective of this book is to develop problem solving skills in a systematic manner. Another aim of this volume is to provide engineering students as well as practising engineers with a solid foundation to help them bridge the gap between undergraduate studies on the one hand and advanced courses on mechanics and/or practical engineering problems on the other. The book contains numerous examples, along with their complete solutions. Emphasis is placed upon student participation in problem solving. The contents of the book correspond to the topics normally covered in courses on basic engineering mechanics at universities and colleges. Now in its second English edition, this material has been in use for two decades in Germany, and has benefited from many practical improvements and the authors' teaching experience over the years. New to this edition are the extra supplementary examples available online as well as the TM-tools necessary to work with this method. .

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