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	Note generali	Includes index.
	Nota di contenuto	Introduction and Mathematical Preliminaries -- Traction, Stress and Equilibrium -- Deformations -- Material Behavior -- Formulations, Uniqueness and Solutions Strategies -- Extension, Bending and Torsion -- Two-Dimensional Elasticity -- Thin Plates and Shells -- Dynamic Effects -- Viscoelasticity -- Energy Principles -- Strength and Failure Criteria -- Something New.
	Sommario/riassunto	This augmented and updated fourth edition introduces a new complement of computational tools and examples for each chapter and continues to provide a grounding in the tensor-based theory of elasticity for students in mechanical, civil, aeronautical and biomedical engineering and materials and earth science. Professor Gould's proven approach allows faculty to introduce this subject early on in an educational program, where students are able to understand and apply the basic notions of mechanics to stress analysis and move on to advanced work in continuum mechanics, plasticity, plate and shell theory, composite materials and finite element mechanics. With the introductory material on the use of MATLAB, students can apply this modern computational tool to solve classic elasticity problems. The detailed solutions of example problems using both analytical derivations and computational tools helps student to grasp the essence

of elasticity and practical skills of applying the basic mechanics theorem. Features a new suite of computational tools and examples in each chapter; Maximizes student learning by combining the basics of continuum mechanics and linear elasticity; Introduces the powerful computational tool (MATLAB) with applications for solving elasticity problems; Reinforces concepts presented with rich problems sets with step-by step solutions; Presents a mix of tensor, explicit, and indicial notations that provide students with the basics for further study of continuum mechanics and other advanced level mechanics courses.