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Nota di contenuto	1. Introduction -- 2. Mathematical preliminaries -- 3. Energetic relaxation to first-order structured deformations -- 4. Energetic relaxation to second-order structured deformations -- 5. Outlook for future research.
Sommario/riassunto	This book is the first organized collection of some results that have been obtained by the authors, their collaborators, and other researchers in the variational approach to structured deformations. It sets the basis and makes more accessible the theoretical apparatus for assigning an energy to a structured deformation, thereby providing motivation to researchers in applied mathematics, continuum mechanics, engineering, and materials science to study the deformation of a solid body without committing at the outset to a specific mechanical theory. Researchers will benefit from an approach in which elastic, plastic, and fracture phenomena can be treated in a unified way. The book is intended for an audience acquainted with measure theory, the theory of functions of bounded variation, and continuum mechanics. Any students in their last years of

undergraduate studies, graduate students, and researchers with a background in applied mathematics, the calculus of variations, and continuum mechanics will have the prerequisite to read this book.

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