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Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Introduction -- Models for Double and Triple Porosity -- Double Porosity and Voids -- Comparison of Porosity and Voids Theories -- Uniqueness and Stability by Energy Methods -- Uniqueness Without Definiteness Conditions -- Continuous Dependence in Multi-Porosity Elasticity -- Waves in Double Porosity Elasticity -- Acceleration Waves in Double Voids -- Double Porosity and Second Sound.
Sommario/riassunto	This book is devoted to describing theories for porous media where such pores have an inbuilt macro structure and a micro structure. For example, a double porosity material has pores on a macro scale, but additionally there are cracks or fissures in the solid skeleton. The actual body is allowed to deform and thus the underlying theory is one of elasticity. Various different descriptions are reviewed. Chapter 1 introduces the classical linear theory of elastodynamics together with uniqueness and continuous dependence results. Chapters 2 and 3 review developments of theories for double and triple porosity using a pressure-displacement structure and also using voids-displacement. Chapter 4 compares various aspects of the pressure-displacement and

voids-displacement theories via uniqueness studies and wave motion analysis. Mathematical analyses of double and triple porosity materials are included concentrating on uniqueness and stability studies in chapters 5 to 7. In chapters 8 and 9 the emphasis is on wave motion in double porosity materials with special attention paid to nonlinear waves. The final chapter embraces a novel area where an elastic body with a double porosity structure is analyzed, but the thermodynamics allows for heat to travel as a wave rather than simply by diffusion. This book will be of value to mathematicians, theoretical engineers and other practitioners who are interested in double or triple porosity elasticity and its relevance to many diverse applications.