DESCRIPTION

• Provides a comprehensive introduction to the dynamic response of lattice materials, covering the fundamental theory and applications in engineering practice

• Offers comprehensive treatment of dynamics of lattice materials and periodic materials in general, including phononic crystals and elastic metamaterials

• Provides an in depth introduction to elastostatics and elastodynamics of lattice materials

• Covers advanced topics such as damping, nonlinearity, instability, impact and nanoscale systems

• Introduces contemporary concepts including pentamodes, local resonance and inertial amplification

• Includes chapters on fast computation and design optimization tools

• Topics are introduced using simple systems and generalized to more complex structures with a focus on dispersion characteristics

ABOUT THE AUTHOR

Editors