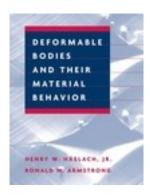
Deformable Bodies and Their Material Behavior



Deformable Bodies and Their Material Behavior_下载链接1_

著者:Haslach, Henry W., Jr.; Armstrong, Ronald W.;

出版者:

出版时间:2003-12

装帧:

isbn:9780471125785

ESSENTIAL TOOLS FOR AVOIDING MATERIAL FUNCTIONAL FAILURE Offering comprehensive, organized, and detailed coverage, Henry Haslach and Ronald ArmstrongA s "Deformable Bodies and Their Material Behavior" present a quantitative description of the mechanical behavior of a broad range of deformable bodies under widely differing conditions and at a level sufficient to match real behavior, and introduces the key tools needed to avoid material functional failure. Covering stress and deformation analysis, material failure modes, and mechanical rest evaluations of material properties, this text provides the tools, insights, and knowledge needed to build a strong foundation for the design of mechanical devices. Considers most types of materials: metals, ceramics, fibered composites, concrete biological tissue, rubber, polymers, and wood. Focuses on the relationships between material properties of a deformable body and the forces and displacements applied to its boundary. Helps develop an appreciation for the approximations made in producing the mathematical models intended to predict mechanical response. Provides historical background on the definitions and models that designers commonly use, describing the practical reasons why these tools were invented.

作者介绍: