1. Record Nr. UNINA9910781712603321

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Titolo	Introduction to structural dynamics and aeroelasticity / / Dewey H. Hodges, G. Alvin Pierce
Pubbl/distr/stampa	Cambridge : , : Cambridge University Press, , 2011
ISBN	1-139-92979-8 1-107-21462-9 1-139-11939-7 1-283-29847-3 9786613298478 1-139-12296-7 0-511-99711-6 1-139-11722-X 1-139-12788-8 1-139-11069-1 1-139-11286-4 1-139-11505-7
Edizione	[Second edition.]
Descrizione fisica	1 online resource (xxi, 247 pages) : digital, PDF file(s)
Collana	Cambridge aerospace series ; ; 15
Classificazione	TEC009000
Disciplina	629.134/31
Soggetti	Aeroelasticitat Vehicles espacials - Dinàmica Space vehicles - Dynamics Aeroelasticity
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Title from publisher's bibliographic system (viewed on 05 Oct 2015).
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Cover; Title; Copyright; Contents; Figures; Tables; Foreword; From First Edition; Addendum for Second Edition; 1 Introduction; 2 Mechanics Fundamentals; 2.1 Particles and Rigid Bodies; 2.1.1 Newton's Laws; 2.1.2 Euler's Laws and Rigid Bodies; 2.1.3 Kinetic Energy; 2.1.4 Work; 2.1.5 Lagrange's Equations; 2.2 Modeling the Dynamics of Strings; 2.2.1 Equations of Motion; 2.2.2 Strain Energy; 2.2.3 Kinetic Energy; 2.2.4 Virtual Work of Applied, Distributed Force; 2.3 Elementary Beam Theory; 2.3.1 Torsion; 2.3.2 Bending; 2.4 Composite Beams

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5.8.1 Ground-Vibration Tests

Sommario/riassunto

This text provides an introduction to structural dynamics and aeroelasticity, with an emphasis on conventional aircraft. The primary areas considered are structural dynamics, static aeroelasticity and dynamic aeroelasticity. The structural dynamics material emphasizes vibration, the modal representation and dynamic response. Aeroelastic phenomena discussed include divergence, aileron reversal, airload redistribution, unsteady aerodynamics, flutter and elastic tailoring. More than one hundred illustrations and tables help clarify the text and more than fifty problems enhance student learning. This text meets the need for an up-to-date treatment of structural dynamics and aeroelasticity for advanced undergraduate or beginning graduate aerospace engineering students.