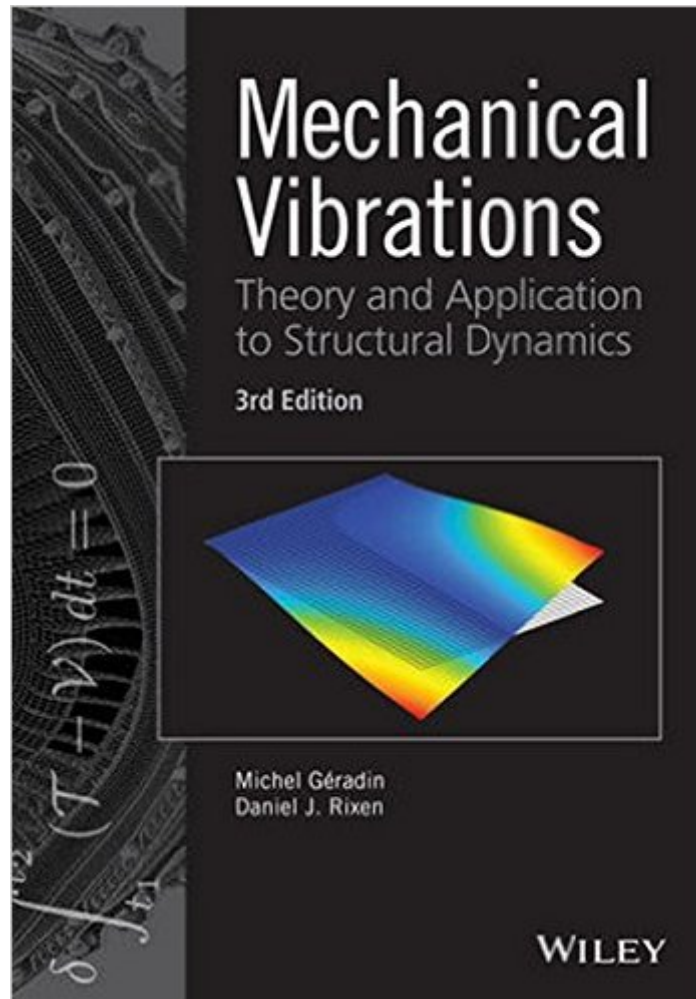# Mechanical Vibrations: Theory And Application To Structural Dynamics

Mechanical
Vibrations
Theory and Application
to Structural Dynamics

3rd Edition

Michel Géradin
Daniel J. Rixen

WILEY

Synopsis

Mechanical Vibrations: Theory and Application to Structural Dynamics, Third Edition is a comprehensively updated new edition of the popular textbook. It presents the theory of vibrations in the context of structural analysis and covers applications in mechanical and aerospace engineering. Key features include: A systematic approach to dynamic reduction and substructuring, based on duality between mechanical and admittance concepts An introduction to experimental modal analysis and identification methods An improved, more physical presentation of wave propagation phenomena A comprehensive presentation of current practice for solving large eigenproblems, focusing on the efficient linear solution of large, sparse and possibly singular systems A deeply revised description of time integration schemes, providing framework for the rigorous accuracy/stability analysis of now widely used algorithms such as HHT and Generalized-Î Solved exercises and end of chapter homework problems A companion website hosting supplementary material

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Average Customer Review: 5.0 out of 5 starsÂ Â See all reviewsÂ (1 customer review)

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This is an excellent textbook on vibrations and structural dynamics. It is better than most books available. It contains a large amount of material which should be used selectively during a one semester course on structural dynamics.

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