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Titolo	A Modern Course in Aeroelasticity / / edited by Earl H. Dowell
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Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Introduction -- Static Aeroelasticity -- Dynamic Aeroelasticity -- Nonsteady Aerodynamics -- Stall Flutter -- Aeroelasticity in Civil Engineering -- Aeroelastic Response of Rotorcraft -- Aeroelasticity in Turbomachines -- Modeling of Fluid-Structure Interaction -- Experimental Aeroelasticity -- Nonlinear Aeroelasticity -- Aeroelastic Control -- Modern Analysis for Complex and Nonlinear Unsteady Flows in Turbomachinery -- Some Recent Advances in Nonlinear Aeroelasticity -- Experimental and Theoretical Correlation Studies in Nonlinear Aeroelasticity.
Sommario/riassunto	This book is the sixth edition. It is suitable for one or more courses at the advanced undergraduate level and graduate level to cover the field of aeroelasticity. It is also of value to the research scholar and engineering practitioner who wish to understand the state of the art in the field. This book covers the basics of aeroelasticity or the dynamics of fluid–structure interaction. While the field began in response to the rapid development of aviation, it has now expanded into many branches of engineering and scientific disciplines and treats physical phenomena from aerospace engineering, bioengineering, civil engineering, and mechanical engineering in addition to drawing the

attention of mathematicians and physicists. The basic questions addressed are dynamic stability and response of fluid structural systems as revealed by both linear and nonlinear mathematical models and correlation with experiment. The use of scaled models and full-scale experiments and tests play a key role where theory is not considered sufficiently reliable. .