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Sommario/riassunto	This is an introduction to the mathematical basis of finite element analysis as applied to vibrating systems. Finite element analysis is a technique that is very important in modeling the response of structures to dynamic loads. Although this book assumes no previous knowledge

of finite element methods, those who do have knowledge will still find the book to be useful. It can be utilised by aeronautical, civil, mechanical, and structural engineers as well as naval architects. This second edition includes information on the many developments that have taken place over the last twenty years. Existing chapters have been expanded where necessary, and three new chapters have been included that discuss the vibration of shells and multi-layered elements and provide an introduction to the hierarchical finite element method.