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Sommario/riassunto

"Provides the tools for the reader to generate Mathematica programs to obtain numerical solutions to a wide range of engineering topics. An Engineer's Guide to Mathematica provides the tools to be able to generate verifiably correct Mathematica programs that obtain symbolic and numerical solutions to a wide range of engineering topics, and to display the numerical results with annotated graphics and, when appropriate, interactive graphics. The first part of the book introduces the fundamentals of Mathematica's syntax and a subset of commands useful in solving engineering problems. The second part uses the fundamentals to obtain numerical solutions in a wide range of engineering specialties, including vibrations, fluid mechanics, heat transfer, controls and signal processing, and engineering statistics. Provides the tools for the reader to generate Mathematica programs to obtain numerical solutions to a wide range of engineering topics Introduces the fundamentals of Mathematica's syntax Contains examples covering vibrations, fluid mechanics and aerodynamics, heat transfer, controls and signal processing, optimization, and structures Includes exercises ranging in complexity. Accompanied by a website hosting a solutions manual".

"Provides the tools for the reader to generate Mathematica programs to obtain numerical solutions to a wide range of engineering topics.
