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Autore	Pryor Roger W
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Sommario/riassunto	COMSOL 5 and MATLAB are valuable software modeling tools for engineers and scientists. This book explores a wide range of models in coordinate systems from 0D to 3D and introduces the numerical analysis techniques employed in COMSOL 5 (including Application Builder) and MATLAB software. The text presents electromagnetic, electronic, optical, thermal physics, and biomedical models as examples. It presents the fundamental concepts in the models and the step-by-step instructions needed to build each model. The companion DVD includes all the built models for each step-by-step example presented in the text and the related animations, as specified. The book is designed to introduce modeling to an experienced engineer or can also be used for upper level undergraduate or graduate courses. FEATURES: Focuses on COMSOL 5 and MATLAB models that demonstrate the use of concepts for later application in engineering, science, medicine, and biophysics for the development of devices and systems Includes a DVD with executable copies of each model and related animations Includes detailed discussions of possible modeling errors and results Uses a step-by-step modeling methodology linked

to the Fundamental Laws of Physics.
