Numerical Computing with Simulink, Volume I: Creating Simulations
Richard J. Gran
This book provides an introduction to computer-aided system design with Simulink®, a robust, accurate, and easily used simulation tool. The author takes readers on a tour of the Simulink environment that shows how to develop a system model and execute the design steps needed to make the model into a functioning design laboratory. Included along the way are the mathematics of systems: difference equations and z transforms, ordinary differential equations (both linear and nonlinear) and Laplace transforms, and numerical methods for solving differential equations.
List Price $81.00 · SIAM Member Price $56.70 · OT100

An Introduction to Modeling and Simulation of Particulate Flows
T. I. Zohdi
This introductory monograph focuses on basic models and physically based computational solution strategies for the direct and rapid simulation of flowing particulate media. Its emphasis is primarily on fluidized dry particulate flows in which there is no significant interstitial fluid, although fully coupled fluid-particle systems are discussed as well. An introduction to basic computational methods for ascertaining optical responses of particulate systems also is included.
2007 · xvii + 176 pages · Softcover · ISBN: 978-0-89871-627-6
List Price $110.00 · SIAM Member Price $77.00 · CS04

Continuum Modeling in the Physical Sciences
E. van Groesen and Jaap Molenaar
Mathematical modeling has expanded considerably over the last decades, making it impossible to cover all of its aspects in one course or textbook. This book provides an extensive exposition of the general principles and methods of this growing field with a focus on applications in the natural sciences. The authors present a thorough treatment of mathematical modeling from the elementary level to more advanced concepts.
2006 · x + 228 pages · Softcover · ISBN: 978-0-89871-25-2
List Price $65.00 · SIAM Member Price $45.50 · MM13

TO ORDER, SHOP ONLINE AT www.siam.org/catalog.
Use your credit card (AMEX, MasterCard, and VISA) by phone: +1-215-382-9800 worldwide, fax: +1-215-386-7999, or e-mail: siambooks@siam.org. Or send check or money order in US dollars to: SIAM, Dept. BKED09, 3600 Market Street, 6th Floor, Philadelphia, PA 19104-2688 USA. Members and customers outside North America can also order SIAM books through SIAM’s distributor, Cambridge University Press, at www.cambridge.org/siam.