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Sommario/riassunto	This book is intended for students of computational systems biology with only a limited background in mathematics. Typical books on systems biology merely mention algorithmic approaches, but without offering a deeper understanding. On the other hand, mathematical books are typically unreadable for computational biologists. The authors of the present book have worked hard to fill this gap. The result is not a book on systems biology, but on computational methods in systems biology. This book originated from courses taught by the

authors at Freie Universität Berlin. The guiding idea of the courses was to convey those mathematical insights that are indispensable for systems biology, teaching the necessary mathematical prerequisites by means of many illustrative examples and without any theorems. The three chapters cover the mathematical modelling of biochemical and physiological processes, numerical simulation of the dynamics of biological networks, and identification of model parameters by means of comparisons with real data. Throughout the text, the strengths and weaknesses of numerical algorithms with respect to various systems biological issues are discussed. Web addresses for downloading the corresponding software are also included. .