

1. Record Nr.	UNINA9910962033203321
Titolo	Making sense of complexity : summary of the workshop on dynamical modeling of complex biomedical systems // George Casella ... [et al.]
Pubbl/distr/stampa	Washington, D.C., : National Academy Press, c2002
ISBN	9786610183791 9780309169615 0309169615 9781280183799 1280183799 9780309501910 0309501911
Edizione	[1st ed.]
Descrizione fisica	1 online resource (47 p.)
Collana	Compass series
Altri autori (Persone)	CasellaGeorge
Disciplina	610.1/5118
Soggetti	Medicine - Mathematical models Biology - Mathematical models Biomathematics
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	"Board on Mathematical Sciences and Their Application, National Research Council".
Nota di bibliografia	Includes bibliographical references (p. 31-32).
Nota di contenuto	Front Matter -- Preface -- Contents -- 1 Introduction -- 2 Modeling Processes Within the Cell -- 3 Probabilistic Models That Represent Biological Observations -- 4 Modeling with Compartments -- 5 From the Compartment to the Fluid -- 6 Gene Transfer As a Biomedical Tool -- 7 The Data Flood: Analysis of Massive and Complex Genomic Data Sets -- 8 Summary -- References -- Appendix Workshop Program and Attendees.
Sommario/riassunto	On April 26-28, 2001, the Board on Mathematical Sciences and Their Applications (BMSA) and the Board on Life Sciences of the National Research Council cosponsored a workshop on the dynamical modeling of complex biomedical systems. The workshop's goal was to identify some open research questions in the mathematical sciences whose solution would contribute to important unsolved problems in three general areas of the biomedical sciences: disease states, cellular

processes, and neuroscience. The workshop drew a diverse group of over 80 researchers, who engaged in lively discussions. To convey the workshop's excitement more broadly, and to help more mathematical scientists become familiar with these very fertile interface areas, the BMSA appointed one of its members, George Casella, of the University of Florida, as rapporteur. He developed this summary with the help of two colleagues from his university, Rongling Wu and Sam S. Wu, assisted by Scott Weidman, BMSA director. This summary represents the viewpoint of its authors only and should not be taken as a consensus report of the BMSA or of the National Research Council.
