1. Record Nr. UNINA9910300102603321

Autore	Bocharov Gennady
Titolo	Mathematical Immunology of Virus Infections / / by Gennady Bocharov, Vitaly Volpert, Burkhard Ludewig, Andreas Meyerhans
Pubbl/distr/stampa	Cham : , : Springer International Publishing : , : Imprint : Springer, , 2018
ISBN	3-319-72317-0
Edizione	[1st ed. 2018.]
Descrizione fisica	1 online resource (XV, 245 p.)
Disciplina	570.285
Soggetti	Biomathematics Immunology Biomedical engineering Statistics Neural networks (Computer science) Physiological, Cellular and Medical Topics Biomedical Engineering/Biotechnology Statistics for Life Sciences, Medicine, Health Sciences Mathematical Models of Cognitive Processes and Neural Networks
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di contenuto	Principles of virus-host interaction -- Basic principles of building a mathematical model of immune response -- Parameter estimation and model selection -- Modelling of experimental infections -- Modelling of human infections -- Spatial modelling using reaction-diffusion systems -- Multi-scale and integrative modelling approaches -- Current challenges.
Sommario/riassunto	This monograph concisely but thoroughly introduces the reader to the field of mathematical immunology. The book covers first basic principles of formulating a mathematical model, and an outline on data-driven parameter estimation and model selection. The authors then introduce the modeling of experimental and human infections and provide the reader with helpful exercises. The target audience primarily comprises researchers and graduate students in the field of mathematical biology who wish to be concisely introduced into

mathematical immunology. .