

1. Record Nr.	UNINA9910450422903321
Titolo	Deterministic and stochastic models of AIDS epidemics and HIV infections with intervention [[electronic resource] /] / [edited by] Wai-Yuan Tan, Hulin Wu
Pubbl/distr/stampa	Singapore, : World Scientific, 2005
ISBN	1-281-88097-3 9786611880972 981-256-926-X
Descrizione fisica	1 online resource (610 p.)
Disciplina	614.59939200151
Soggetti	Medicine - Mathematical models Biomathematics Electronic books.
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Description based upon print version of record.
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	CONTENTS; Chapter 1 Mathematical Models for HIV Transmission Among Injecting Drug Users Vincenzo Capasso and Daniela Morale; Chapter 2 Estimation of HIV Infection and Seroconversion Probabilities in IDU and Non-IDU Populations by State Space Models Wai-Yuan Tan, Li-Jun Zhang and Lih-Yuan Deng; Chapter 3 A Bayesian Monte Carlo Integration Strategy for Connecting Stochastic Models of HIV / AIDS with Data Charles J. Mode; Chapter 4 A Class of Methods for HIV Contact Tracing in Cuba: Implications for Intervention and Treatment Ying-Hen Hsieh, Hector de Arazoza, Rachid Lounes and Jose Joanes Chapter 5 Simultaneous Inferences of HIV Vaccine Effects on Viral Load, CD4 Cell Counts, and Antiretroviral Therapy Initiation in Phase 3 Trials Peter B. Gilbert and Yanqing SunChapter 6 A Review of Mathematical Models for HIV / AIDS Vaccination Shu-Fang Hsu Schmitz; Chapter 7 Effects of AIDS Vaccine on Sub-Populations of CD4(+) T Cells, CD8(+) T Cells and B Cells Under HIV Infection Wai-Yuan Tan, Ping Zhang and Xiaoping Xiong; Chapter 8 Dynamical Models for the Course of an HIV Infection Christel Kamp; Chapter 9 How Fast Can HIV Escape from Immune Control? W. David Wick and Steven G. Self

Chapter 10 CTL Action During HIV-1 Is Determined VIA Interactions with Multiple Cell Types Seema H. Bajaria and Denise E. Kirschner
Chapter 11 Identifiability of HIV / AIDS Models Annah M. Jeffrey and Xiaohua Xia; Chapter 12 Influence of Drug Pharmacokinetics on HIV Pathogenesis and Therapy Narendra M. Dixit and Alan S. Perelson; Chapter 13 A Model of HIV-1 Treatment: The Latently Infected CD4+ T Cells becomes Undetectable Karen O'Hara; Chapter 14 A State Space Model for HIV Pathogenesis Under Anti-Viral Drugs and Applications Wai-Yuan Tan, Ping Zhang and Xiaoping Xiong
Chapter 15 Bayesian Estimation of Individual Parameters in an HIV Dynamic Model Using Long-Term Viral Load Data Yangxin Huang and Hulin Wu
Chapter 16 Within-Host Dynamics and Treatment of HIV-1 Infection: Unanswered Questions and Challenges for Computational Biologists John Mittler; Chapter 17 Treatment Interruptions and Resistance: A Review Jane M Heffernan and Lindi M Wahl; Chapter 18 A Branching Process Model of Drug Resistant HIV H. Zhou and K. S. Dorman; Chapter 19 A Bayesian Approach for Assessing Drug Resistance in HIV Infection Using Viral Load Hua Liang, Waiyuan Tan and Xiaoping Xiong
Chapter 20 Estimating HIV Incidence from a Cross-Sectional Survey with the Less Sensitive Assay Robert H. Byers, Jr., Dale J. Hu and Robert S. Janssen
Chapter 21 Design of Population Studies of HIV Dynamics Cong Han and Kathryn Chaloner; Chapter 22 Statistical Estimation, Inference and Hypothesis Testing of Parameters in Ordinary Differential Equations Models of HIV Dynamics Sarah Holte; Chapter 23 Convergence to an Endemic Stationary Distribution in a Class of Stochastic Models of HIV / AIDS in Homosexual Populations Charles J. Mode; Index

Sommario/riassunto

With contributions from an international team of leading researchers, the book pulls together updated research results in the area of HIV/AIDS modeling to provide readers with the latest information in the field. Topics covered include: AIDS epidemic models; vaccine models; models for HIV/cell dynamics and interactions; cellular kinetics; viral dynamics with antiviral treatments; modeling of drug resistance and quasispecies.
