1. Record Nr. UNICAMPANIASUN0123973

Titolo	Models, algorithms and technologies for network analysis : NET 2016, Nizhny Novgorod, Russia, May 2016 / Valery A. Kalyagin ... [et al.] editors
Pubbl/distr/stampa	xiii, 277 p., : ill. ; 24 cm
Edizione	[Cham : Springer, 2017]
Descrizione fisica	Pubblicazione in formato elettronico
Soggetti	90Bxx - Operations research and management science [MSC 2020] 90Cxx - Mathematical programming [MSC 2020] 68Rxx - Discrete mathematics in relation to computer science [MSC 2020] 90-XX - Operations research, mathematical programming [MSC 2020]
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia

2. Record Nr. UNINA9910254067703321

Autore	Macheras P (Panos)
Titolo	Modeling in Biopharmaceutics, Pharmacokinetics and Pharmacodynamics : Homogeneous and Heterogeneous Approaches / / by Panos Macheras, Athanassios Iliadis
Pubbl/distr/stampa	Cham : , : Springer International Publishing : , : Imprint : Springer, , 2016
ISBN	3-319-27598-4
Edizione	[2nd ed. 2016.]
Descrizione fisica	1 online resource (497 p.)
Collana	Interdisciplinary Applied Mathematics, , 2196-9973 ; ; 30
Disciplina	510
Soggetti	Biomathematics Pharmacology Biophysics Biomedical engineering Biochemistry Mathematics Mathematical and Computational Biology Biomedical Engineering and Bioengineering Applications of Mathematics
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	Part I: Basic Concepts -- The Geometry of Nature -- Diffusion and Kinetics -- Nonlinear Dynamics -- Part II: Modeling in Biopharmaceutics -- Drug Release -- Drug Dissolution -- Oral Drug Absorption -- Part III: Modeling in Pharmacokinetics -- Empirical Models -- Deterministic Compartmental Models -- Fractional Pharmacokinetics -- Modeling and Simulation in Bioequivalence -- Stochastic Compartmental Models -- Part IV: Modeling in Pharmacodynamics -- Classical Pharmacodynamics -- Nonclassical Pharmacodynamics -- Appendices.
Sommario/riassunto	The state of the art in Biopharmaceutics, Pharmacokinetics, and Pharmacodynamics Modeling is presented in this new second edition book. It shows how advanced physical and mathematical methods can expand classical models in order to cover heterogeneous drug-

biological processes and therapeutic effects in the body. The book is divided into four parts; the first deals with the fundamental principles of fractals, diffusion and nonlinear dynamics; the second with drug dissolution, release, and absorption; the third with epirical, compartmental, and stochastic pharmacokinetic models, with two new chapters, one on fractional pharmacokinetics and one on bioequivalence; and the fourth mainly with classical and nonclassical aspects of pharmacodynamics. The classical models that have relevance and application to these sciences are also considered throughout. This second edition has new information on reaction limited models of dissolution, non binary biopharmaceutic classification system, time varying models, and interface models. Many examples are used to illustrate the intrinsic complexity of drug administration related phenomena in the human, justifying the use of advanced modeling methods. This book will appeal to graduate students and researchers in pharmacology, pharmaceutical sciences, bioengineering, and physiology. Reviews of the first edition: "This book presents a novel modelling approach to biopharmaceutics, pharmacokinetics and pharmacodynamic phenomena. This state-of-the-art volume will be helpful to students and researchers in pharmacology, bioengineering, and physiology. This book is a must for pharmaceutical researchers to keep up with recent developments in this field." (P. R. Parthasarathy, Zentralblatt MATH, Vol. 1103 (5), 2007) "These authors are the unique (or sole) contributors in this area that are working on these questions and bring a special expertise to the field that isnow being recognized as essential to understanding biological system and kinetic/dynamic characteristics in drug development...This text is an essential primer for those who would envision the incorporation of heterogeneous approaches to systems where homogeneous approaches are not sufficient to describe the system." (Robert R. Bies, Journal of Clinical Pharmacology, Vol. 46, 2006).