1. Record Nr. UNINA9910787710403321

Autore	Puzrin Alexander
Titolo	Constitutive Modelling in Geomechanics [[electronic resource]] : Introduction / / by Alexander Puzrin
Pubbl/distr/stampa	Berlin, Heidelberg : , : Springer Berlin Heidelberg : , : Imprint : Springer, , 2012
ISBN	1-280-39777-2 3-642-27395-5 9786613575692
Edizione	[1st ed. 2012.]
Descrizione fisica	1 online resource (306 p.)
Disciplina	620 620.1 620.11 624.15
Soggetti	Engineering geology Engineering—Geology Foundations Hydraulics Mechanics Mechanics, Applied Geotechnical engineering Materials science Structural materials Geoengineering, Foundations, Hydraulics Solid Mechanics Geotechnical Engineering & Applied Earth Sciences Characterization and Evaluation of Materials Structural Materials
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.
Nota di contenuto	Part I Introduction to Continuum Mechanics -- Part II Constitutive modelling of reversible soil behavior -- Part III Constitutive modelling

of irreversible soil behavior -- Appendices.

Sommario/riassunto

The purpose of this book is to bridge the gap between the traditional Geomechanics and Numerical Geotechnical Modelling with applications in science and practice. Geomechanics is rarely taught within the rigorous context of Continuum Mechanics and Thermodynamics, while when it comes to Numerical Modelling, commercially available finite elements or finite differences software utilize constitutive relationships within the rigorous framework. As a result, young scientists and engineers have to learn the challenging subject of constitutive modelling from a program manual and often end up with using unrealistic models which violate the Laws of Thermodynamics. The book is introductory, by no means does it claim any completeness and state of the art in such a dynamically developing field as numerical and constitutive modelling of soils. The author gives basic understanding of conventional continuum mechanics approaches to constitutive modelling, which can serve as a foundation for exploring more advanced theories. A considerable effort has been invested here into the clarity and brevity of the presentation. A special feature of this book is in exploring thermomechanical consistency of all presented constitutive models in a simple and systematic manner.

2. Record Nr. UNINA9910437871903321

Autore	Rodrigues Regina Eliane
Titolo	Applications of discrete-time Markov chains and poisson processes to air pollution modeling and studies / / Eliane Regina Rodrigues, Jorge Alberto Achcar
Pubbl/distr/stampa	New York, : Springer, 2013
ISBN	1-283-62439-7 9786613936844 1-4614-4645-7
Edizione	[1st ed. 2013.]
Descrizione fisica	1 online resource (115 p.)
Collana	SpringerBriefs in mathematics, , 2191-8198
Altri autori (Persone)	AchcarJorge Alberto
Disciplina	628.532
Soggetti	Markov processes Air - Pollution - Computer simulation Air - Pollution - Study and teaching
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	Applications of Discrete-time Markov Chains and Poisson Processes to Air Pollution Modeling and Studies; Acknowledgements; Contents; Chapter1 Introduction; Chapter2 Markov Chain Models; 2.1 Introduction; 2.2 Description of the Mathematical Model; 2.3 Bayesian Formulation; 2.4 Application to Ozone Air Pollution; Chapter3 Poisson Models and Their Application to Ozone Data; 3.1 Introduction; 3.2 Homogeneous Poisson Models; 3.3 Non-homogeneous Poisson Models; 3.4 Models with the Presence of Change-Points; Chapter4 Modeling the Time Between Ozone Exceedances; 4.1 Introduction 4.2 The Mathematical Models4.3 An Application to Ozone Data; Chapter5 Some Counting Processes and Ozone Air Pollution; 5.1 Introduction; 5.2 Description of the Independent and Bivariate Models; 5.3 A Copula Model; Chapter6 Comments; References; Appendix: Program Code; A.1 R Code for the Non-homogeneous Poisson Models with No Change-Points; A.1.1 Weibull Rate Function; A.1.2 Generalized Goel-Okumoto Rate Function; A.1.3 Musa-Okumoto Rate Function; A.2 WinBugs Code; A.2.1 WinBugs Code for the Non-homogeneous Models with One Change-Point; A.2.2 WinBugs Code for the Times Between

	Exceedances A.2.2.1 Model IA.2.2.2 Model II; A.2.2.3 Model III; A.2.2.4 Model IV; A.2.2.5 Multiple Change-Points; Index
Sommario/riassunto	In this brief we consider some stochastic models that may be used to study problems related to environmental matters, in particular, air pollution. The impact of exposure to air pollutants on people's health is a very clear and well documented subject. Therefore, it is very important to obtain ways to predict or explain the behaviour of pollutants in general. Depending on the type of question that one is interested in answering, there are several of ways studying that problem. Among them we may quote, analysis of the time series of the pollutants' measurements, analysis of the information obtained directly from the data, for instance, daily, weekly or monthly averages and standard deviations. Another way to study the behaviour of pollutants in general is through mathematical models. In the mathematical framework we may have for instance deterministic or stochastic models. The type of models that we are going to consider in this brief are the stochastic ones.

3.

Record Nr.	UNINA9910483608403321
Titolo	Formal Methods: Applications and Technology : 11th International Workshop on Formal Methods for Industrial Critical Systems, FMICS 2006, and 5th International Workshop on Parallel and Distributed Methods in Verification, PDMC 2006, Bonn, Germany, August 26-27, and August 31, 2006, Revised Selected / / edited by Lubos Brim, Boudewijn Haverkort, Martin Leucker, Jaco van de Pol
Pubbl/distr/stampa	Berlin, Heidelberg : , : Springer Berlin Heidelberg : , : Imprint : Springer, , 2007
ISBN	1-280-93577-4 9786610935772 3-540-70952-5
Edizione	[1st ed. 2007.]
Descrizione fisica	1 online resource (371 p.)
Collana	Programming and Software Engineering, , 2945-9168 ; ; 4346
Disciplina	004.0151
Soggetti	Computer science Software engineering Compilers (Computer programs) Computers, Special purpose Theory of Computation Software Engineering Computer Science Logic and Foundations of Programming

	Compilers and Interpreters Special Purpose and Application-Based Systems
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	Invited Contributions -- Challenges for Formal Verification in Industrial Setting -- Distributed Verification: Exploring the Power of Raw Computing Power -- FMICS -- An Easy-to-Use, Efficient Tool-Chain to Analyze the Availability of Telecommunication Equipment -- ”To Store or Not To Store” Reloaded: Reclaiming Memory on Demand -- Discovering Symmetries -- On Combining Partial Order Reduction with Fairness Assumptions -- Test Coverage for Loose Timing Annotations -- Model-Based Testing of a WAP Gateway: An Industrial Case-Study -- Heuristics for ioco-Based Test-Based Modelling -- Verifying VHDL Designs with Multiple Clocks in SMV -- Verified Design of an Automated Parking Garage -- Evaluating Quality of Service for Service Level Agreements -- Simulation-Based Performance Analysis of a Medical Image-Processing Architecture -- Blasting Linux Code -- A Finite State Modeling of AFDX Frame Management Using Spin -- UML 2.0 State Machines: Complete Formal Semantics Via core state machine -- Automated Incremental Synthesis of Timed Automata -- SAT-Based Verification of LTL Formulas -- jmle: A Tool for Executing JML Specifications Via Constraint Programming -- Goanna—A Static Model Checker -- PDMC -- Parallel SAT Solving in Bounded Model Checking -- Parallel Algorithms for Finding SCCs in Implicitly Given Graphs -- Can Saturation Be Parallelised? -- Distributed Colored Petri Net Model-Checking with Cyclades.
Sommario/riassunto	These are the joint ?nal proceedings of the 11th International Workshop on Formal Methods for Industrial Critical Systems (FMICS 2006) and the ?fth International Workshop on Parallel and Distributed Methods in Veri?cation (PDMC 2006). Both workshops were organized as satellite events of CONCUR 2006, the 17th International Conference on Concurrency Theory that was or- nized in Bonn, August 2006. The FMICS workshop continued successfully the aim of the FMICS working group – to promote the use of formal methods for industrial applications, by supporting research in this area and its application in industry. The emphasis in these workshops is on the exchange of ideas between researchers and prac- tioners, in both industry and academia. This year the Program Committee received a record number of submissions. The 16 accepted regular contributions and 2 accepted tool papers, selected out of a total of 47 submissions, cover formal methodologies for handling large state spaces, model-based testing, formal description and analysis techniques as well as a range of applications and case studies. The workshop program included two invited talks, by Anna Slobodova from Intel on “Challenges for Formal Veri?cation in an Industrial Setting” and by Edward A. Lee from the University of California at Berkeley on “Making C- currency Mainstream.” The former full paper can be found in this volume.