

The book was found

Performance Evaluation Of Complex Systems: Techniques And Tools: Performance 2002. Tutorial Lectures (Lecture Notes In Computer Science)



Synopsis

The fast evolution and the increased pervasiveness of computers and communication networks have led to the development of a large variety of complex applications and services which have become an integral part of our daily lives. Modern society widely relies on information technologies. Hence, the Quality of Service, that is, the efficiency, availability, reliability, and security of these technologies, is an essential requirement for the proper functioning of modern society. In this scenario, performance evaluation plays a central role. Performance evaluation has to assess and predict the performance of hardware and software systems, and to identify and prevent their current and future performance bottlenecks. In the past thirty years, many performance evaluation techniques and tools have been developed and successfully applied in studies dealing with the configuration and capacity planning of existing systems and with the design and development of new systems. Recently, performance evaluation techniques have evolved to cope with the increased complexity of the current systems and their workloads. Many of the classical techniques have been revisited in light of the recent technological advances, and novel techniques, methods, and tools have been developed. This book is organized around a set of survey papers which provide a comprehensive overview of the theories, techniques, and tools for performance and reliability evaluation of current and new emerging technologies. The papers, by leading international experts in the field of performance evaluation, are based on the tutorials presented at the IFIP WG7.3 International Symposium on Computer Modeling, Measurement, and Evaluation (Performance 2002) held in Rome on September 23-27, 2002. The papers address the state of the art of the theoretical and methodological advances in the area of performance and reliability evaluation as well as new perspectives in the major application domains. A broad spectrum of topics is covered in this book. Modeling and verification formalisms, solution methods, workload characterization, and benchmarking are addressed from a methodological point of view. Application of performance and reliability techniques to various domains, such as hardware and software architectures, wired and wireless networks, Grid environments, Web services, real-time voice and video applications, are also examined. This book is intended to serve as a reference for students, scientists, and engineers working in the areas of performance and reliability evaluation, hardware

and software design, and capacity planning. VI Preface

Finally, as editors of the book, we would like to thank all authors for their

valuable contributions and their effort and cooperation in the preparation of their manuscripts. July 2002

Maria Carla Calzarossa Salvatore Tucci Table of Contents

G-Networks: Multiple Classes of Positive Customers, Signals, and Product Form Results

. 1 Erol Gelenbe

Spectral Expansion Solutions for Markov-Modulated Queues 17 Isi Mitrani

M/G/1-Type Markov Processes: A Tutorial 36

Alma Riska, Evgenia Smirni An Algorithmic Approach to Stochastic Bounds

64 J. M. Fourneau, N. Pekergin Dynamic Scheduling via Polymatroid Optimization.

. . . . 89 David D. Yao Workload Modeling for Performance Evaluation. 114

Dror G. Feitelson Capacity Planning for Web Services (Techniques and Methodology) 142

Virgilio A. F. Almeida End-to-End Performance of Web Services

158 Paolo Cremonesi, Giuseppe Serazzi Benchmarking.

.

Book Information

Series: Lecture Notes in Computer Science (Book 2459)

Paperback: 499 pages

Publisher: Springer; 2002 edition (February 22, 2009)

Language: English

ISBN-10: 3540442529

ISBN-13: 978-3540442523

Product Dimensions: 6.1 x 1.2 x 9.2 inches

Shipping Weight: 1.6 pounds (View shipping rates and policies)

Average Customer Review: Be the first to review this item

Best Sellers Rank: #1,817,740 in Books (See Top 100 in Books) #60 in Books > Computers &

Technology > Programming > Software Design, Testing & Engineering > Performance Optimization

#280 in Books > Computers & Technology > Computer Science > AI & Machine Learning >

Machine Theory #362 in Books > Computers & Technology > Hardware & DIY > Internet &

Networking

[Download to continue reading...](#)

Performance Evaluation of Complex Systems: Techniques and Tools: Performance 2002. Tutorial

Lectures (Lecture Notes in Computer Science) Database and Expert Systems Applications: 13th International Conference, DEXA 2002, Aix-en-Provence, France, September 2-6, 2002.

Proceedings (Lecture Notes in Computer Science) Performance Evaluation: Origins and Directions (Lecture Notes in Computer Science) Software Reuse: Methods, Techniques, and Tools: 8th International Conference, ICSR 2004, Madrid, Spain, July 5-9, 2004, Proceedings (Lecture Notes in Computer Science) Generalized Quantifiers and Computation: 9th European Summer School in Logic, Language, and Information, ESSLLI'97 Workshop, Aix-en-Provence, France, ... Lectures (Lecture Notes in Computer Science) Trends in Distributed Systems: CORBA and Beyond: International Workshop TreDS '96 Aachen, Germany, October 1 - 2, 1996; Proceedings (Lecture Notes in Computer Science) Biomimetic Neural Learning for Intelligent Robots: Intelligent Systems, Cognitive Robotics, and Neuroscience (Lecture Notes in Computer Science) Software Reuse for Dynamic Systems in the Cloud and Beyond: 14th International Conference on Software Reuse, ICSR 2015, Miami, FL, USA, January 4-6, ... (Lecture Notes in Computer Science) Performance and Evaluation of Lisp Systems (Computer Systems Series) Learning Classifier Systems: From Foundations to Applications (Lecture Notes in Computer Science) Lectures on Choquet's Theorem (Lecture Notes in Mathematics) Entropy Methods for the Boltzmann Equation: Lectures from a Special Semester at the Centre Alexandre Borel, Institut H. Poincaré, Paris, 2001 (Lecture Notes in Mathematics) Dynamical Vision: ICCV 2005 and ECCV 2006 Workshops, WDV 2005 and WDV 2006, Beijing, China, October 21, 2005, Graz, Austria, May 13, 2006, Revised Papers (Lecture Notes in Computer Science) System Analysis and Modeling: Models and Reusability: 8th International Conference, SAM 2014, Valencia, Spain, September 29-30, 2014. Proceedings (Lecture Notes in Computer Science) Automated Reasoning with Analytic Tableaux and Related Methods: 16th International Conference, TABLEAUX 2007, Aix en Provence, France, July 3-6, 2007, Proceedings (Lecture Notes in Computer Science) Ada 95 Reference Manual. Language and Standard Libraries: International Standard ISO/IEC 8652:1995 (E) (Lecture Notes in Computer Science) Consolidated Ada Reference Manual: Language and Standard Libraries (Lecture Notes in Computer Science) (v. 1) Eurocode '90: International Symposium on Coding Theory and Applications : Proceedings (Lecture Notes in Computer Science) Cryptography and Lattices: International Conference, CaLC 2001, Providence, RI, USA, March 29-30, 2001. Revised Papers (Lecture Notes in Computer Science) Mobile Entity Localization and Tracking in GPS-less Environments: Second International Workshop, MELT 2009, Orlando, FL, USA, September 30, 2009, Proceedings (Lecture Notes in Computer Science)