The Grid 2 Second Edition Blueprint For A New Computing Infrastructure The Elsevier Series In Grid Computing

The only single, up-to-date source for Grid issues in bioinformatics and biology Bioinformatics is fast emerging as an important discipline for academic research and industrial applications, creating a need for the use of Grid computing techniques for large-scale distributed applications. This book successfully presents Grid algorithms and their real-world applications, provides details on modern and ongoing research, and explores software frameworks that integrate bioinformatics and computational biology. Additional coverage includes: * Bio-ontology and data mining * Data visualization * DNA assembly, clustering, and mapping * Molecular evolution and phylogeny * Gene expression and micro-arrays * Molecular modeling and simulation * Sequence search and alignment * Protein structure prediction * Grid infrastructure, middleware, and tools for bio data Grid Computing for Bioinformatics and Computational Biology is an indispensable resource for professionals in several research and development communities including bioinformatics, computational biology, Grid computing, data mining, and more. It also serves as an ideal textbook for undergraduate- and graduate-level courses in bioinformatics and Grid computing.

"This book offers the latest research within the field of HAIS, surveying the broad topics and collecting case studies, future directions, and cutting edge analyses, investigating biologically inspired algorithms such as ant colony optimization and particle swarm optimization"--

All too often, the weakest link in the chain of criminal justice is the crime scene investigation. Improper collection of evidence blocks the finding of truth. Now in its second edition, Practical Crime Scene Processing and Investigation presents practical, proven methods to be used at any crime scene to ensure that evidence is admissible and persuasive. Accompanied by more than 300 color photographs, topics discussed include: Understanding the nature of physical evidence, including fingerprint, biological, trace, hair and fiber, and other forms of evidence Actions of the responding officer, from documenting and securing the initial information to providing emergency care Assessing the scene, including search considerations and dealing with chemical and bioterror hazards Crime scene photography, sketching, mapping, and notes and reports Light technology and preserving fingerprint and impression evidence Shooting scene documentation and reconstruction Bloodstain pattern analysis and the body as a crime scene Special scene considerations, including fire, buried bodies, and entomological evidence The role of crime scene analysis and reconstruction, with step-by-step procedures Two appendices provide additional information on crime scene equipment and risk management, and each chapter is enhanced by a succinct summary, suggested readings, and a series of questions to test assimilation of the material. Using this book in your investigations will help you find out what happened and who is responsible.

From cloud computing to data analytics, society stores vast supplies of information through wireless networks and mobile computing. As organizations are becoming increasingly more wireless, ensuring the security and seamless function of electronic gadgets while creating a strong network is imperative. Advanced Methodologies and Technologies in Network Architecture, Mobile Computing, and Data Analytics highlights the challenges associated with creating a strong network architecture in a perpetually online society. Readers will learn various methods in building a seamless mobile computing option and the most effective means of analyzing big data. This book is an important resource for information technology professionals, software developers, data analysts, graduate-level students, researchers, computer engineers, and IT specialists seeking modern information on emerging methods in data mining, information technology, and wireless networks.

Find out which technologies enable the Grid and how to employ them successfully! This invaluable text provides a complete, clear, systematic, and practical understanding of the technologies that enable the Grid. The authors outline all the components necessary to create a Grid infrastructure that enables support for a range of wide-area distributed applications. The Grid: Core Technologies takes a pragmatic approach with numerous practical examples of software in context. It describes the middleware components of the Grid step-by-step, and gives hands-on advice on designing and building a Grid environment with the Globus Toolkit, as well as writing applications. The Grid: Core Technologies: Provides a solid and up-to-date introduction to the technologies that underpin the Grid. Contains a systematic explanation of the Grid, including its infrastructure, basic services, job management, user interaction, and applications. Explains in detail OGSA (Open Grid Services Architecture), Web Services technologies (SOAP, WSDL, UDDI), and Grid Monitoring. Covers Web portal-based tools such as the Java CoG, GridPort, GridSphere, and JSR 168 Portlets. Tackles hot topics such as WSRF (Web Services Resource Framework), the Semantic Grid, the Grid Security Infrastructure, and Workflow systems. Offers practical examples to enhance the understanding and use of Grid components and the associated tools. This rich resource will be essential reading for researchers and postgraduate students in computing and engineering departments, IT professionals in distributed computing, as well as Grid end users such as physicists, statisticians, biologists and chemists.

A comprehensive reference for engineers and researchers, Gas Turbine Heat Transfer and Cooling Technology, Second Edition has been completely revised and updated to reflect advances in the field made during the past ten years. The second edition retains the format that made the first edition so popular and adds new information mainly based on selected published papers in the open literature. See What's New in the Second Edition: State-of-the-art cooling technologies such as advanced turbine blade film cooling and internal cooling Modern experimental methods for gas turbine heat transfer and cooling research Advanced computational models for gas turbine heat transfer and cooling performance predictions Suggestions for future research in this critical technology The book discusses the need for turbine cooling, gas turbine heat-transfer problems, and cooling methodology and covers turbine rotor and stator heat-

transfer issues, including endwall and blade tip regions under engine conditions, as well as under simulated engine conditions. It then examines turbine rotor and stator blade film cooling and discusses the unsteady high free-stream turbulence effect on simulated cascade airfoils. From here, the book explores impingement cooling, rib-turbulent cooling, pin-fin cooling, and compound and new cooling techniques. It also highlights the effect of rotation on rotor coolant passage heat transfer. Coverage of experimental methods includes heat-transfer and mass-transfer techniques, liquid crystal thermography, optical techniques, as well as flow and thermal measurement techniques. The book concludes with discussions of governing equations and turbulence models and their applications for predicting turbine blade heat transfer and film cooling, and turbine blade internal cooling.

The Knowledge Grid is an intelligent and sustainable interaction environment that consists of autonomous individuals, self-organized semantic communities, adaptive networking mechanisms, evolving semantic link networks keeping meaningful connection between individuals, flows for dynamic resource sharing, and mechanisms supporting effective resource management and providing appropriate knowledge services for learning, innovation, teamwork, problem solving, and decision making. This book presents its methodology, theory, models and applications systematically for the first time.Its second editio

For training that is as fun as it is effective, this is a must-have resource for anyone involved in training. Detailing the "who," "what," " when," "why" and "how" of learning, Telling Ain't Training provides everything you need to energise and engage leaders regardless of age experience. Fast-paced, fun and interactive, *Telling Ain't Training* incorporates principles of adult learning to separate learning myth from learning fact. Understand how people learn, what makes training successful, why training fails and how to achieve amazing training results.

This book constitutes the thoroughly refereed postproceedings of the First International Life Science Grid Workshop, LSGRID 2004, held in Kanazawa, Japan in May/ June 2004. The 10 revised full papers and 5 invited papers presented were carefully selected and went through two rounds of reviewing and revision. Among the topics addressed are grid environment for bioinformatics, grid architectures, database federation, proteome annotation, grid workflow software, functional genome annotation, protein classification, tree inference, parallel computing, high performance computing, grid infrastructures, functional genomics, and evolutionary algorithms.

The GridBlueprint for a New Computing InfrastructureMorgan Kaufmann

Engineering Geology is a multidisciplinary subject that interacts with other disciplines, such as mineralogy, petrology, structural geology, hydrogeology, seismic engineering, rock engineering, soil mechanics, geophysics, remote sensing (RS-GIS-GPS) and environmental geology. This book is the only one of its kind in the Indian market that caters to the students of all these subjects. Engineers require a deep understanding, interpretation and analyses of earth sciences before suggesting engineering designs and remedial measures to combat natural disasters, such as earthquakes, volcanoes, landslides, debris flows, tsunamis and floods. This book covers all aspects of engineering geology and is intended to serve as a reference for practicing civil engineers, geotechnical engineers, marine engineers, geologists and mining engineers. Engineering Geology has also been designed as a textbook for students pursuing undergraduate and postgraduate courses in advanced/applied geology and earth sciences. A plethora of examples and case studies relevant to the Indian context have been included for better understanding of the geological challenges faced by engineers.New in this Edition• The concept of watershed and the depiction of watershed atlas of India• Latest findings by the Indian Bureau of Mines• Recent developments in coastal engineering and innovative structures• New types of protective structures to guard against tsunamis• Role of geology in building smart cities• Environmental legislation in India

Grids 2nd Edition, the seventh book in the Basics Design series, has been updated with new content and visuals, exploring the construction and ordering of the age and screen through the use of grids. The grid features as a strong element in many areas of design, and presents both the student and practitioner alike with the opportunity to ground their work in solid foundations.Through detailed investigation of the principles behind grid design, this book informs and advances your understanding of this key design component, allowing you to devise grids with ease and precision for any situation.

There is a paradigm shift in Informatics in general and in technologies enhancing human learning in particular. The debate between the evolutionaries - those that wish to optimize and refine current approaches - and the revolutionaries - those that support a fundamental change of approach - is quite actual. Within the Internet communities, the debate is hidden behind the words semantic WEB versus semantic Grid; within educational technologists between content/resource centered and conversation centered e-learning, or either between teaching and pedagogy on the one side, and learning and communities of practice on the other. In general, in Informatics, the shift from a product-page oriented to a service-conversation oriented view may possibly impact most if not all the foreseen applications, in e-learning, but also in e-science, e-democracy, e-commerce, e-health, etc. Part A of the book is dedicated to Position papers: visions about what to do and why to do it in the next years. The remaining parts (B to D) offer partial answers to how to do it. Part B concerns what we called: Content-centered services, i.e.: a vision of learning systems that privileges knowled mature and integrated solutions that address not only content but more generally the creation and management of human Virtual Communities connected on the Grid in order to offer and consume different services facilitating and enhancing human learning. Finally part D is concerned with new directions in learning services.

This completely updated second edition includes case studies and a focus on the business of system operations. The broad range of actions under system operations from transmission to distribution are explored. The underpinnings of electric systems operations are highlighted, with an introduction to utilities and power systems. It offers a thorough definition of system operations, identifying and explaining the various systems that support this function and how they integrate into the utility. The book presents a thorough definition of system operations, identifying and explaining the various systems that support this function and how they integrate into the utility. The business perspective on electric systems operation, and how critical this area is to a utility's ability to provide reliable power to customers is detailed. Readers discover how a utility's network operation is a key contributor to the viable sustainment of its business. The book presents the convergence of the systems used in the grid operations of today and addresses the emerging needs of the smart grid operations of tomorrow. Readers discover how a utility's network operation is a key contributor to the viable sustainment of its business, as well as learn how system operations help to ensure the right levels of safety, reliability and efficiency in everything that relates to transmission and distribution grid management.

This comprehensive text provides basic fundamentals of computational theory and computational methods. The book is divided into two parts. The first part covers material fundamental to the understanding and application of finite-difference methods. The second part illustrates the use of such methods in solving different types of complex problems encountered in fluid mechanics and heat transfer. The book is replete with worked examples and problems provided at the end of each chapter.

Intended for both the novice and professional, this text aims to approach problems with currently available tools and methods in the modern analytical chemistry domain. It covers all fields from basic theory and principles of analytical chemistry to instrumentation classification,

design and purchasing. This edition includes information on X-ray methods and analysis, capillary electrophoresis, infrared and Raman technique comparisons, and more.

Since publication of the groundbreaking Encyclopedia of Housing in 1998, many issues have assumed special prominence within this field and, indeed, within the global economy. For instance, the global economic meltdown was spurred in large part by the worst subprime mortgage crisis we've seen in our history. On a more positive note, the sustainability movement and "green" development has picked up considerable steam and, given the priorities and initiatives of the current U.S. administration, this will only grow in importance, and increased attention has been given in recent years to the topic of indoor air quality. Within the past decade, as well, the Baby Boom Generation began its march into retirement and senior citizenship, which will have increasingly broad implications for retirement communities and housing, assisted living facilities, aging in place, livable communities, universal design, and the like. Finally, within the last twelve years an emerging generation of young scholars has been making significant contributions to the field. For all these reasons and more, we are pleased to present a significantly updated and expanded Second Edition of The Encyclopedia of Housing.

Placing emphasis on practical "how-to" guidance, this cutting-edge resource provides a first-hand, insider's perspective on the advent and evolution of smart grids in the 21st century. This book presents engineers, researchers, and students with the building blocks that comprise basic smart grids, including power plant, transmission substation, distribution, and meter automation. Moreover, this forward-looking volume explores the next step of this technology's evolution. It provides a detailed explanation of how an advanced smart grid incorporates demand response with smart appliances and management mechanisms for distributed generation, energy storage, and electric vehicles. This updated second edition focuses on the disruptive impact of DER. This new edition also includes a glossary with well over 100 acronyms and terms, acknowledging the tremendous challenge for a student of smart energy and smart grid to grasp this complex industry.

This book provides a comprehensive yet easy coverage of ad hoc and sensor networks and fills the gap of existing literature in this growing field. It emphasizes that there is a major interdependence among various layers of the network protocol stack. Contrary to wired or even one-hop cellular networks, the lack of a fixed infrastructure, the inherent mobility, the wireless channel, and the underlying routing mechanism by ad hoc and sensor networks introduce a number of technological challenges that are difficult to address within the boundaries of a single protocol layer. All existing textbooks on the subject often focus on a specific aspect of the technology, and fail to provide critical insights on cross-layer interdependencies. To fully understand these intriguing networks, one need to grasp specific solutions individually, and also the many interdependencies and cross-layer interactions.

Stefanescu here attempts to describe solidification theory through the complex mathematical apparatus required for a fundamental treatment of the problem. The mathematics is however restricted to the elements essential to attain a working knowledge in the field. This is in line with the main goal of the book, which is to educate the reader in the fast moving area of computational modeling of solidification of castings. A special effort has been made to introduce the reader to the latest developments in solidification theory including, in this second edition, a new chapter on semi-solid casting.

Advances in hardware, software, and audiovisual rendering technologies of recent years have unleashed a wealth of new capabilities and possibilities for multimedia applications, creating a need for a comprehensive, up-to-date reference. The Encyclopedia of Multimedia Technology and Networking provides hundreds of contributions from over 200 distinguished international experts, covering the most important issues, concepts, trends, and technologies in multimedia technology. This must-have reference contains over 1,300 terms, definitions, and concepts, providing the deepest level of understanding of the field of multimedia technology and networking for academicians, researchers, and professionals worldwide.

For designers working in every medium, layout is arguable the most basic, and most important, element. Effective layout is essential to communication and enables the end user to not only be drawn in with an innovative design but to digest information easily. Making and Breaking the Grid is a comprehensive layout design workshop that assumes that in order to effectively break the rules of grid-based design, one must first understand those rules and see them applies to real-world projects. Text reveals top designersÆ work in process and rationale. Projects with similar characteristics are linked through a simple notational system that encourages exploration and comparison of structure ideas. Also included are historical overviews that summarize the development of layout concepts, both grid-based and non-grid based, in modern design practice.

This book presents a current review of the science of monsoon research and forecasting. The contents are based on the invited reviews presented at the World Meteorological Organization's Fourth International Workshop on Monsoons in late 2008, with subsequent manuscripts revised from 2009 to early 2010. The book builds on the concept that the monsoons in various parts of the globe can be viewed as components of an integrated global monsoon system, while emphasizing that significant region-specific characteristics are present in individual monsoon regions. The topics covered include all major monsoon regions and time scales (mesoscale, synoptic, intraseasonal, interannual, decadal, and climate change). It is intended to provide an updated comprehensive review of the current status of knowledge, modeling capability, and future directions in the research of monsoon systems around the world.

"This book provides research into parallel & distributed computing, high performance computing, and Grid computing"--Provided by publisher.

This second edition is a must-read for today's mathematics teachers offering research-based strategies and best practices that are critical and highly effective in mathematics instruction. This invaluable resource provides practical suggestions, resources, and

templates to support the areas of classroom management, instructional planning, content and practice standard implementation, assessment, and differentiation, as well as methods to build students' conceptual understanding. It also guides teachers in using the Professional Learning Community model effectively in order to support professional growth and student achievement. With a focus on student thinking and learning, this book is an essential guide for all educators.

Welcome to the proceedings of GCC2004 and the city of Wuhan. Grid computing has become a mainstream research area in computer science and the GCC conference has become one of the premier forums for presentation of new and exciting research in all aspectsofgridandcooperativecomputing. Theprogramcommitteeispleasedtopresent the proceedings of the 3rd International Conference on Grid and Cooperative Comp- ing (GCC2004), which comprises a collection of excellent technical papers, posters, workshops, and keynote speeches. The papers accepted cover a wide range of exciting topics, including resource grid and service grid, information grid and knowledge grid, grid monitoring,managementand organizationtools, grid portal, grid service, Web s- vices and their QoS, service orchestration, grid middleware and toolkits, software glue technologies, grid security, innovative grid applications, advanced resource reservation andscheduling,performanceevaluationandmodeling,computer-supportedcooperative work, P2P computing, automatic computing, and meta-information management. The conference continues to grow and this year a record total of 581 manuscripts (including workshop submissions) were submitted for consideration. Expecting this growth, the size of the program committee was increased from 50 members for GCC 2003 for 70 in GCC 2004. Relevant differences from previous editions of the conf- ence: it is worth mentioning a signi?cant increase in the number of papers submitted by authors from outside China; and the acceptance rate was much lower than for p- vious GCC conferences. From the 427 papers submitted to the main conference, the program committee selected only 96 regular papers for oral presentation and 62 short papers for poster presentation in the program.

Current research activities are leveraging the Grid to create generic- and domain-specific solutions and services for data management and knowledge discovery. Knowledge and Data Management in Grids is the third volume of the CoreGRID series; it gathers contributions by researchers and scientists working on storage, data, and knowledge management in Grid and Peer-to-Peer systems. This volume presents the latest Grid solutions and research results in key areas such as distributed storage management, Grid databases, Semantic Grid and Grid-aware data mining. Written for a professional audience of researchers and practitioners in industry, it is suitable for graduate-level students in computer science.

"The PSAT was recently redesigned! This revised version of The Princeton Review's Workout for the PST gives you the material you need to prepare for the updated test. Inside, you'll find tons of examples to show you what to expect on the exam, plenty of practice problems to help you hone your attack, and essential information on National Merit Scholarships." -- back cover

This book is intended as a textbook providing a deliberately simple introduction to finite element methods in a way that should be readily understandable to engineers, both students and practising professionals. Only the very simplest elements are considered, mainly two dimensional three-noded "constant strain triangles", with simple linear variation of the relevant variables. Chapters of the book deal with structural problems (beams), classification of a broad range of engineering into harmonic and biharmonic types, finite element analysis of harmonic problems, and finite element analysis of biharmonic problems (plane stress and plane strain). Full FORTRAN programs are listed and explained in detail, and a range of practical problems solved in the text. Despite being somewhat unfashionable for general programming purposes, the FORTRAN language remains very widely used in engineering. The programs listed, which were originally developed for use on mainframe computers, have been thoroughly updated for use on desktops and laptops. Unlike the first edition, the new edition has problems (with solutions) at the end of each chapter. Electronic copies of all the computer programs displayed in the book can be downloaded at:

http://www.worldscientific.com/doi/suppl/10.1142/p847/suppl_file/p847_program.zip.

"The Grid" is an emerging infrastructure that will fundamentally change the way people think about and use computing. The editors reveal the revolutionary impact of large-scale resource sharing and virtualization within science and industry, and the intimate relationships between organization and resource sharing structures.

"This book presents research on building network of excellence by effectively and efficiently managing ICT-related resources using Grid technology"--Provided by publisher.

"This 10-volume compilation of authoritative, research-based articles contributed by thousands of researchers and experts from all over the world emphasized modern issues and the presentation of potential opportunities, prospective solutions, and future directions in the field of information science and technology"--Provided by publisher.

In recent years, our world has experienced a profound shift and progression in available computing and knowledge sharing innovations. These emerging advancements have developed at a rapid pace, disseminating into and affecting numerous aspects of contemporary society. This has created a pivotal need for an innovative compendium encompassing the latest trends, concepts, and issues surrounding this relevant discipline area. During the past 15 years, the Encyclopedia of Information Science and Technology has become recognized as one of the landmark sources of the latest knowledge and discoveries in this discipline. The Encyclopedia of Information Science and Technology, Fourth Edition is a 10-volume set which includes 705 original and previously unpublished research articles covering a full range of perspectives, applications, and techniques contributed by thousands of experts and researchers from around the globe. This authoritative encyclopedia is an all-encompassing, well-established reference source that is ideally designed to disseminate the most forward-thinking and diverse research findings. With critical perspectives on the impact of information science management and new technologies in modern settings, including but not limited to computer science, education, healthcare, government, engineering, business, and natural and physical sciences, it is a pivotal and relevant source of knowledge that will benefit every professional within the field of information science and technology and is an invaluable addition to every academic and corporate library.

Covers a comprehensive range of P2P and Grid technologies. Provides a broad overview of the P2P field and how it relates to other technologies, such as Grid Computing, jini, Agent based computing, and web services.

The thoroughly Revised & Updated 2nd Edition of "Olympiad Champs English Class 1 with Past Olympiad Questions" is a complete preparatory book not only for Olympiad but also for Class 1 English. The book is prepared on content based on National Curriculum Framework prescribed by NCERT. This new edition has been empowered with Past Questions

from various Olympiad Exams like IEO, IOEL, GTSE, etc. in both the exercises of every chapter. Further the book Provides engaging content with the help of Teasers, Do You Know, Amazing Facts & Illustrations, which enriches the reading experience for the children. The questions are divided into two levels Challenge A and Challenge B. The first level, Challenge A, is the beginner's level which comprises of questions like fillers, analogy and odd one out. The second level is the advanced level. Challenge B comprises of techniques like matching, chronological sequencing, picture, passage and feature based, statement correct/ incorrect, integer based, puzzle, grid based, crossword, Venn diagram, table/ chart based and much more. Solutions and explanations are provided for all questions.

This book constitutes the refereed proceedings of the Second International Conference on Grid and Pervasive Computing, GPC 2007, held in Paris, France in May 2007. It covers all aspects of grid and pervasive computing and focuses on topics such as cluster computing, grid computing, semantic Web and semantic grid, service-oriented computing, peer-to-peer computing, mobile computing, as well as grid and pervasive related applications.

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