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Laser Raman Gas DiagnosticsAutomotive Engineering InternationalState Estimation for RoboticsVehicle-dependent Expedition GuideAutomotive IndustriesThis Ain't Your Mother's Poetry BookMastering Regular ExpressionsAutomatic Control SystemsEmbedded Systems, an Introduction Using the Renesas Rx62N Microcontroller'Smiles': A Rose of the CumberlandsGeothermal Reservoir EngineeringHow to Modify Ford S.o.H.C. EnginesCell-Based Assays for High-Throughput ScreeningPetroleum Production Engineering, A Computer-Assisted ApproachGraphs and GeometryTsunami: Progress in Prediction, Disaster Prevention and WarningAutomotive Systems and Software EngineeringAutomated Solution of Differential Equations by the Finite Element MethodElectric Machinery and TransformersThe Marketing Agency Blueprint3D Math Primer for Graphics and Game DevelopmentThe HighlandersThe Manager's Guide to Systems PracticeThe Stone Hammer and Its Various Uses Solved Problems in Classical MechanicsRarefied Gas DynamicsProblems and Solutions on MechanicsMRI from Picture to ProtonModelling and Prediction Honoring Seymour GeisserAll-Digital Frequency Synthesizer in Deep-Submicron CMOSProceedings of the 1970 Cryogenic Engineering Conference. The University of Colorado. Boulder, Colorado. June 17-19,1970Mastering Regular ExpressionsHandbook of Atomization and SpraysSolving PDEs in Python5th International Conference on Biomedical Engineering in VietnamAutomotive Industries, the AutomobileFluid Machinery and Fluid MechanicsKey Factors of Sustainable Firm PerformanceInformation Technology LawMachine Learning, Optimization, and Big Data

Laser Raman Gas Diagnostics

This book is a tutorial written by researchers and developers behind the FEniCS Project and explores an advanced, expressive approach to the development of mathematical software. The presentation spans mathematical background, software design and the use of FEniCS in applications. Theoretical aspects are complemented with computer code which is available as free/open source software. The book begins with a special introductory tutorial for beginners. Following are chapters in Part I addressing fundamental aspects of the approach to automating the creation of finite element solvers. Chapters in Part II address the design and implementation of the FEnicS software. Chapters in Part III present the application of FEniCS to a wide range of applications, including fluid flow, solid mechanics, electromagnetics and geophysics.

Automotive Engineering International

Vols. for 1919- include an Annual statistical issue (title varies).

State Estimation for Robotics

Modelling and Prediction Honoring Seymour Geisser contains the refereed proceedings of the Conference on Forecasting, Prediction, and Modelling held at National Chiao Tung University, Taiwan in 1994. The papers discuss general methodological issues; prediction; design of experiments and classification; prior

distributions and estimation; posterior odds, testing, and model selection; modelling and prediction in finance; and time series modelling and applications. Specific topics include very interesting and topical statistical issues related to DNA fingerprinting and spatial image reconstruction, foundational issues for applied statistics and testing hypotheses, forecasting tax revenues and bond prices, and assessing oxone depletion.

Vehicle-dependent Expedition Guide

MRI from Picture to Proton presents the basics of MR practice and theory in a unique way: backwards! The subject is approached just as a new MR practitioner would encounter MRI: starting from the images, equipment and scanning protocols, rather than pages of physics theory. The reader is brought face-to-face with issues pertinent to practice immediately, filling in the theoretical background as their experience of scanning grows. Key ideas are introduced in an intuitive manner which is faithful to the underlying physics but avoids the need for difficult or distracting mathematics. Additional explanations for the more technically inquisitive are given in optional secondary text boxes. The new edition is fully up-dated to reflect the most recent advances, and includes a new chapter on parallel imaging. Informal in style and informed in content, written by recognized effective communicators of MR, this is an essential text for the student of MR.

Automotive Industries

A modern look at state estimation, targeted at students and practitioners of robotics, with emphasis on three-dimensional applications.

This Ain't Your Mother's Poetry Book

For this revision of their bestselling junior- and senior-level text, Guru and Hiziroglu have incorporated eleven years of cutting-edge developments in the field since Electric Machinery and Transformers was first published. Completely re-written, the new Second Edition also incorporatessuggestions from students and instructors who have used the First Edition, making it the best text available for junior- and senior-level courses in electric machines. The new edition features a wealth of new and improved problems and examples, designed to complement the authors' overall goal ofencouraging intuitive reasoning rather than rote memorization of material. Chapter 3, which presents the conversion of energy, now includes: analysis of magnetically coupled coils, induced emf in a coil rotating in a uniform magnetic field, induced emf in a coil rotating in a time-varying magneticfield, and the concept of the revolving field. All problems and examples have been rigorously tested using Mathcad.

Mastering Regular Expressions

Automatic Control Systems

Billions of microcontrollers are sold each year to create embedded systems for a

wide range of products. An embedded system is an application-specific computer system which is built into a larger system or device. Using a computer system offers many benefits such as sophisticated control, precise timing, low unit cost, low development cost, high flexibility, small size, and low weight. These basic characteristics can be used to improve the overall system or device in various ways: Improved performance More functions and features Reduced cost Increased dependabilityThis book uses the Renesas RX62N family of processors to demonstrate concepts with hands-on examples complete with source code targeting the YRDKRX62N evaluation board. The 32-bit RX processor core provides remarkable instruction throughput, with high clock rates and hardware support for floating-point and digital-signal processing instructions. The core is also quite agile, responding to fast interrupts in 5 clock cycles. These processors offer a wide range of sophisticated peripherals to simplify interfacing with and controlling external devices.

Embedded Systems, an Introduction Using the Renesas Rx62N Microcontroller

'Smiles': A Rose of the Cumberlands

"'Smiles': A Rose of the Cumberlands" by Eliot H. Robinson. Published by Good Press. Good Press publishes a wide range of titles that encompasses every genre. From well-known classics & literary fiction and non-fiction to forgotten−or yet undiscovered gems−of world literature, we issue the books that need to be read. Each Good Press edition has been meticulously edited and formatted to boost readability for all e-readers and devices. Our goal is to produce eBooks that are user-friendly and accessible to everyone in a high-quality digital format.

Geothermal Reservoir Engineering

A new and innovative paradigm for RF frequency synthesis and wireless transmitter design Learn the techniques for designing and implementing an all-digital RF frequency synthesizer. In contrast to traditional RF techniques, this innovative book sets forth digitally intensive design techniques that lead the way to the development of low-cost, low-power, and highly integrated circuits for RF functions in deep submicron CMOS processes. Furthermore, the authors demonstrate how the architecture enables readers to integrate an RF front-end with the digital back-end onto a single silicon die using standard ASIC design flow. Taking a bottom-up approach that progressively builds skills and knowledge, the book begins with an introduction to basic concepts of frequency synthesis and then guides the reader through an all-digital RF frequency synthesizer design: Chapter 2 presents a digitally controlled oscillator (DCO), which is the foundation of a novel architecture, and introduces a time-domain model used for analysis and VHDL simulation Chapter 3 adds a hierarchical layer of arithmetic abstraction to the DCO that makes it easier to operate algorithmically Chapter 4 builds a phase correction mechanism around the DCO such that the system's frequency drift or wander performance matches that of the stable external frequency reference Chapter 5 presents an application of the all-digital RF synthesizer Chapter 6 describes the

behavioral modeling and simulation methodology used in design The final chapter presents the implementation of a full transmitter and experimental results. The novel ideas presented here have been implemented and proven in two high-volume, commercial single-chip radios developed at Texas Instruments: Bluetooth and GSM. While the focus of the book is on RF frequency synthesizer design, the techniques can be applied to the design of other digitally assisted analog circuits as well. This book is a must-read for students and engineers who want to learn a new paradigm for RF frequency synthesis and wireless transmitter design using digitally intensive design techniques.

How to Modify Ford S.o.H.C. Engines

Under the auspices of the Tsunami Commission of the International Union of Geodesy and Geophysics and the International Coordination Group of the International Oceanographic Commission, the IUGGIIOC International Tsunami Symposium, TSUNAMI '93 (Sixteenth International Tsunami Symposium) was held in Wakayama, Olle of the most historical areas in the prevention of tsunami disasters in Japan, from 23 to 27 August, 1993 by the Organizing Committee of the Japan Society of Ovil Engineers, in commemoration of the International Decade for Natural Disaster Reduction. More than one hundred and fifty scientists, engineers and specialists specializing in tsunami research and mitigation of the disasters met from thirteen countries to exchange current information on technica1 advances and to discuss progress in the science. Over hundred and ten abstracts were submitted, most of which were excellent. It was specially agreed in this symposium that in the aftemoon of the third day a usual session for operational tsunami warning systems and plans for improvement is hdd, but three days for presentation and publication restrictions only permit the presentation of less than 78 papers.

Cell-Based Assays for High-Throughput Screening

Graphs are usually represented as geometric objects drawn in the plane, consisting of nodes and curves connecting them. The main message of this book is that such a representation is not merely a way to visualize the graph, but an important mathematical tool. It is obvious that this geometry is crucial in engineering, for example, if you want to understand rigidity of frameworks and mobility of mechanisms. But even if there is no geometry directly connected to the graph-theoretic problem, a well-chosen geometric embedding has mathematical meaning and applications in proofs and algorithms. This book surveys a number of such connections between graph theory and geometry: among others, rubber band representations, coin representations, orthogonal representations, and discrete analytic functions. Applications are given in information theory, statistical physics, graph algorithms and quantum physics. The book is based on courses and lectures that the author has given over the last few decades and offers readers with some knowledge of graph theory, linear algebra, and probability a thorough introduction to this exciting new area with a large collection of illuminating examples and exercises.

Petroleum Production Engineering, A Computer-Assisted

Approach

Geothermal Reservoir Engineering offers a comprehensive account of geothermal reservoir engineering and a guide to the state-of-the-art technology, with emphasis on practicality. Topics covered include well completion and warm-up, flow testing, and field monitoring and management. A case study of a geothermal well in New Zealand is also presented. Comprised of 10 chapters, this book opens with an overview of geothermal reservoirs and the development of geothermal reservoir engineering as a discipline. The following chapters focus on conceptual models of geothermal fields; simple models that illustrate some of the processes taking place in geothermal reservoirs under exploitation; measurements in a well from spudding-in up to first discharge; and flow measurement. The next chapter provides a case history of one well in the Broadlands Geothermal Field in New Zealand, with particular reference to its drilling, measurement, discharge, and data analysis/interpretation. The changes that have occurred in exploited geothermal fields are also reviewed. The final chapter considers three major problems of geothermal reservoir engineering: rapid entry of external cooler water, or return of reinjected water, in fractured reservoirs; the effects of exploitation on natural discharges; and subsidence. This monograph serves as both a text for students and a manual for working professionals in the field of geothermal reservoir engineering. It will also be of interest to engineers and scientists of other disciplines.

Graphs and Geometry

Tsunami: Progress in Prediction, Disaster Prevention and Warning

Newtonian mechanics : dynamics of a point mass (1001-1108) - Dynamics of a system of point masses (1109-1144) - Dynamics of rigid bodies (1145-1223) - Dynamics of deformable bodies (1224-1272) - Analytical mechanics : Lagrange's equations (2001-2027) - Small oscillations (2028-2067) - Hamilton's canonical equations (2068-2084) - Special relativity (3001-3054).

Automotive Systems and Software Engineering

This is a poetry compilation for people that are not necessarily interested in reading poetry. The featured works range from weird to vulgar to humorous to awkward. Each poem is combined with an image, sharing the page by fighting and/or complimenting each other.

Automated Solution of Differential Equations by the Finite Element Method

Petroleum Production Engineering, A Computer-Assisted Approach provides handy guidelines to designing, analyzing and optimizing petroleum production systems. Broken into four parts, this book covers the full scope of petroleum production engineering, featuring stepwise calculations and computer-based spreadsheet

programs. Part one contains discussions of petroleum production engineering fundamentals, empirical models for production decline analysis, and the performance of oil and natural gas wells. Part two presents principles of designing and selecting the main components of petroleum production systems including: well tubing, separation and dehydration systems, liquid pumps, gas compressors, and pipelines for oil and gas transportation. Part three introduces artificial lift methods, including sucker rod pumping systems, gas lift technology, electrical submersible pumps and other artificial lift systems. Part four is comprised of production enhancement techniques including, identifying well problems, designing acidizing jobs, guidelines to hydraulic fracturing and job evaluation techniques, and production optimization techniques. *Provides complete coverage of the latest techniques used for designing and analyzing petroleum production systems *Increases efficiency and addresses common problems by utilizing the computer-based solutions discussed within the book * Presents principles of designing and selecting the main components of petroleum production systems

Electric Machinery and Transformers

This book presents the state of the art, challenges and future trends in automotive software engineering. The amount of automotive software has grown from just a few lines of code in the 1970s to millions of lines in today's cars. And this trend seems destined to continue in the years to come, considering all the innovations in electric/hybrid, autonomous, and connected cars. Yet there are also concerns related to onboard software, such as security, robustness, and trust. This book covers all essential aspects of the field. After a general introduction to the topic, it addresses automotive software development, automotive software reuse, E/E architectures and safety, C-ITS and security, and future trends. The specific topics discussed include requirements engineering for embedded software systems, tools and methods used in the automotive industry, software product lines, architectural frameworks, various related ISO standards, functional safety and safety cases, cooperative intelligent transportation systems, autonomous vehicles, and security and privacy issues. The intended audience includes researchers from academia who want to learn what the fundamental challenges are and how they are being tackled in the industry, and practitioners looking for cutting-edge academic findings. Although the book is not written as lecture notes, it can also be used in advanced master's-level courses on software and system engineering. The book also includes a number of case studies that can be used for student projects.

The Marketing Agency Blueprint

The Laser Raman Workshop on the r"eas urement of Gas Properti es i sone of aseries of occasional meetings organized in an informal workshop format through the stimulation of Project SQUID, Office of Naval Research. This workshop is the second to be organized on gas-phase applications of Raman scattering. Both Raman workshops were supported by Project SQUID, ONR, and the Air Force Aero Propulsion Laboratory, Wright-Patterson Air Force Base. The first Raman Workshop was held at the AVCO Everett Research Laboratory, Everett, Massachusetts, with their co-sponsorship in January 1972 under the chairmanship of D. A. Leonard. The present meeting was co-sponsored by the General Electric Research and Development Center, and held at their facility in Schenectady, New York. We are

3D Math Primer for Graphics and Game Development

This volume presents the proceedings of the Fifth International Conference on the Development of Biomedical Engineering in Vietnam which was held from June 16-18, 2014 in Ho Chi Minh City. The volume reflects the progress of Biomedical Engineering and discusses problems and solutions. I aims identifying new challenges, and shaping future directions for research in biomedical engineering fields including medical instrumentation, bioinformatics, biomechanics, medical imaging, drug delivery therapy, regenerative medicine and entrepreneurship in medical devices.

The Highlanders

Nineteenth Century Collections Online: European Literature, 1790-1840: The Corvey Collection includes the full-text of more than 9,500 English, French and German titles. The collection is sourced from the remarkable library of Victor Amadeus, whose Castle Corvey collection was one of the most spectacular discoveries of the late 1970s. The Corvey Collection comprises one of the most important collections of Romantic era writing in existence anywhere -- including fiction, short prose, dramatic works, poetry, and more -- with a focus on especially difficult-to-find works by lesser-known, historically neglected writers. The Corvey library was built during the last half of the 19th century by Victor and his wife Elise, both bibliophiles with varied interests. The collection thus contains everything from novels and short stories to belles lettres and more populist works, and includes many exceedingly rare works not available in any other collection from the period. These invaluable, sometimes previously unknown works are of particular interest to scholars and researchers. European Literature, 1790-1840: The Corvey Collection includes: * Novels and Gothic Novels * Short Stories * Belles-Lettres * Short Prose Forms * Dramatic Works * Poetry * Anthologies * And more Selected with the guidance of an international team of expert advisors, these primary sources are invaluable for a wide range of academic disciplines and areas of study, providing never before possible research opportunities for one of the most studied historical periods. Additional Metadata Primary Id: B0154801 PSM Id: NCCOF0063-C00000-B0154801 DVI Collection Id: NCCOC0062 Bibliographic Id: NCCO002629 Reel: 306 MCODE: 4UVC Original Publisher: Printed for Henry Colburn Original Publication Year: 1824 Original Publication Place: London Original Imprint Manufacturer: Printed by J. Green, printer Subjects English fiction -- 19th century.

The Manager's Guide to Systems Practice

"Fluid Machinery and Fluid Mechanics: 4th International Symposium (4th ISFMFE)" is the proceedings of 4th International Symposium on Fluid Machinery and Fluid Engineering, held in Beijing November 24-27, 2008. It contains 69 highly informative technical papers presented at the Mei Lecture session and the technical sessions of the symposium. The Chinese Society of Engineering Thermophysics (CSET) organized the First, the Second and the Third International Symposium on Fluid Machinery and Fluid Engineering (1996, 2000 and 2004). The purpose of the 4th Symposium is to provide a common forum for exchange of scientific and technical information worldwide on fluid machinery and fluid engineering for scientists and engineers. The main subject of this symposium is "Fluid Machinery for Energy Conservation". The "Mei Lecture" reports on the most recent developments of fluid machinery in commemoration of the late professor Mei Zuyan. The book is intended for researchers and engineers in fluid machinery and fluid engineering. Jianzhong Xu is a professor at the Chinese Society of Engineering Thermophysics, Chinese Academy of Sciences, Beijing.

The Stone Hammer and Its Various Uses

Introduces regular expressions and how they are used, discussing topics including metacharacters, nomenclature, matching and modifying text, expression processing, benchmarking, optimizations, and loops.

Solved Problems in Classical Mechanics

Rarefied Gas Dynamics

Problems and Solutions on Mechanics

Build a disruptive marketing agency for the modern age The marketing services industry is on the cusp of a trulytransformational period. The old guard, rooted in tradition andresistant to change, will fall and new leaders will emerge. Hybridmarketing agencies that are more nimble, tech savvy, andcollaborative will redefine the industry. Digital services will beengrained into the DNA and blended with traditional methods forintegrated campaigns. The depth, versatility, and drive of theirtalent will be the cornerstones of organizations that pursue ahigher purpose. The Marketing Agency Blueprint is apractical and candid guide that presents ten rules for buildingsuch a hybrid agency. The new marketing agency model will create and nurture diverserecurring revenue streams through a mix of services, consulting,training, education, publishing, and software sales. It will useefficiency and productivity, not billable hours, as the essentialdrivers of profitability. Its value and success will be measured byoutcomes, not outputs. Its strength and stability will depend on awillingness to be in a perpetual state of change, and an ability toexecute and adapt faster than competitors. The Marketing AgencyBlueprint demonstrates how to: Generate more qualified leads, win clients with set pricing andservice packages, and secure more long-term retainers Develop highly efficient management systems and more effectiveaccount teams Deliver greater results and value to clients This is the future of the marketing

services industry. A futuredefined and led by underdogs and innovators. You have theopportunity to be at the forefront of the transformation.

MRI from Picture to Proton

Atomization and sprays are used in a wide range of industries: mechanical, chemical, aerospace, and civil engineering; material science and metallurgy; food; pharmaceutical, forestry, environmental protection; medicine; agriculture; meteorology and others. Some specific applications are spray combustion in furnaces, gas turbines and rockets, spray drying and cooling, air conditioning, powdered metallurgy, spray painting and coating, inhalation therapy, and many others. The Handbook of Atomization and Sprays will bring together the fundamental and applied material from all fields into one comprehensive source. Subject areas included in the reference are droplets, theoretical models and numerical simulations, phase Doppler particle analysis, applications, devices and more.

Modelling and Prediction Honoring Seymour Geisser

All-Digital Frequency Synthesizer in Deep-Submicron CMOS

100 keV) of neutral hydrogen 7 atoms . The design of the cesium jettarget intended to achieve the 7 following goals : - Supersonic nozzle - cooled skimmer system to increase the fraction 8 of the total nozzle flux Jn which is used as the jettarget flux Jt, 8 = Jt/Jn, from low values 8

Proceedings of the 1970 Cryogenic Engineering Conference. The University of Colorado. Boulder, Colorado. June 17-19,1970

Mastering Regular Expressions

The fifth edition of Information Technology Law continues to be dedicated to a detailed analysis of and commentary on the latest developments within this burgeoning field of law. It provides an essential read for all those interested in the interface between law and technology and the effect of new technological developments on the law. The contents have been restructured and the reordering of the chapters provides a coherent flow to the subject matter. Criminal law issues are now dealt with in two separate chapters to enable a more focused approach to content crime. The new edition contains both a significant amount of incremental change as well as substantial new material and, where possible, case studies have been used to illustrate significant issues. In particular, new additions include: • Social media and the criminal law; • The impact of the decision in Google Spain and the 'right to be forgotten'; • The Schrems case and the demise of the Safe Harbour agreement; • The judicial reassessment of the proportionality of ICT surveillance powers within the UK and EU post the Madrid bombings; • The expansion of the ICANN gTLDs and the redesigned domain name registration and dispute resolution processes.

Handbook of Atomization and Sprays

Regular expressions are an extremely powerful tool for manipulating text and data. They are now standard features in a wide range of languages and popular tools, including Perl, Python, Ruby, Java, VB.NET and C# (and any language using the .NET Framework), PHP, and MySQL. If you don't use regular expressions yet, you will discover in this book a whole new world of mastery over your data. If you already use them, you'll appreciate this book's unprecedented detail and breadth of coverage. If you think you know all you need to know about regularexpressions, this book is a stunning eye-opener. As this book shows, a command of regular expressions is an invaluable skill. Regular expressions allow you to code complex and subtle text processing that you never imagined could be automated. Regular expressions can save you time and aggravation. They can be used to craft elegant solutions to a wide range of problems. Once you've mastered regular expressions, they'll become an invaluable part of your toolkit. You will wonder how you ever got by without them. Yet despite their wide availability, flexibility, and unparalleled power, regular expressions are frequently underutilized. Yet what is power in the hands of an expert can be fraught with peril for the unwary. Mastering Regular Expressions will help you navigate the minefield to becoming an expert and help you optimize your use of regular expressions. Mastering Regular Expressions, Third Edition, now includes a full chapter devoted to PHP and its powerful and expressive suite of regular expression functions, in addition to enhanced PHP coverage in the central "core" chapters. Furthermore, this edition has been updated throughout to reflect advances in other languages, including expanded in-depth coverage of Sun's java.util.regex package, which has emerged as the standard Java regex implementation.Topics include: A comparison of features among different versions of many languages and tools How the regular expression engine works Optimization (major savings available here!) Matching just what you want, but not what you don't want Sections and chapters on individual languages Written in the lucid, entertaining tone that makes a complex, dry topic become crystal-clear to programmers, and sprinkled with solutions to complex real-world problems, Mastering Regular Expressions, Third Edition offers a wealth information that you can put to immediateuse. Reviews of this new edition and the second edition: "There isn't a better (or more useful) book available on regular expressions." --Zak Greant, Managing Director, eZ Systems "A real tour-de-force of a book which not only covers the mechanics of regexes in extraordinary detail but also talks about efficiency and the use of regexes in Perl, Java, and .NETIf you use regular expressions as part of your professional work (even if you already have a good book on whatever language you're programming in) I would strongly recommend this book to you." --Dr. Chris Brown, Linux Format "The author does an outstanding job leading the reader from regexnovice to master. The book is extremely easy to read and chock full ofuseful and relevant examplesRegular expressions are valuable toolsthat every developer should have in their toolbox. Mastering RegularExpressions is the definitive guide to the subject, and an outstandingresource that belongs on every programmer's bookshelf. Ten out of TenHorseshoes." --Jason Menard, Java Ranch

Solving PDEs in Python

simulated motion on a computer screen, and to study the effects of changing

parameters. --

5th International Conference on Biomedical Engineering in Vietnam

This introduction to automatic control systems has been updated to reflect the increasing use of computer-aided learning and design. Aiming at a more accessible approach, this edition demonstrates the solution of complex problems with the aid of computer software; integrates several real world applications; provides a discussion of steady-state error analysis, including nonunity feedback systems; discusses circuit-realization of controller transfer functions; offers a treatment of Nyquist criterion on systems with nonminimum-phase transfer functions; explores time-domain and frequency domain designs side-by-side in one chapter; and adds a chapter on Design of Discrete-Data Control Systems.

Automotive Industries, the Automobile

This book is an ideal resource on the subject of systems practice for busy managers whose time is scarce. It provides a rapid introduction to straightforward, yet powerful ideas that enable users to address real world problems. Systems theory and practice is predominantly a framework for thinking about the World, in which holistic views are maintained. In this respect it contrasts with some familiar techniques of management science, in which problem situations are broken down into their constituent parts with resultant loss of coherence.

Fluid Machinery and Fluid Mechanics

This book offers a concise and gentle introduction to finite element programming in Python based on the popular FEniCS software library. Using a series of examples, including the Poisson equation, the equations of linear elasticity, the incompressible Navier–Stokes equations, and systems of nonlinear advection–diffusion–reaction equations, it guides readers through the essential steps to quickly solving a PDE in FEniCS, such as how to define a finite variational problem, how to set boundary conditions, how to solve linear and nonlinear systems, and how to visualize solutions and structure finite element Python programs. This book is open access under a CC BY license.

Key Factors of Sustainable Firm Performance

3D Math Primer for Graphics and Game Development covers fundamental 3D math concepts that are especially useful for computer game developers and programmers. The authors discuss the mathematical theory in detail and then provide the geometric interpretation necessary to make 3D math intuitive. Working C++ classes illustrate how to put the techniques into practice, and exercises at the end of each chapter help reinforce the concepts.This book explains basic concepts such as vectors, coordinate spaces, matrices, transformations, Euler angles, homogenous coordinates, geometric primitives, intersection tests, and triangle meshes. It discusses orientation in 3D, including thorough coverage of quaternions and a comparison of the advantages and disadvantages of different representation

techniques. The text describes working C++ classes for mathematical and geometric entities and several different matrix classes, each tailored to specific geometric tasks. Also included are complete derivations for all the primitive transformation matrices.

Information Technology Law

This book constitutes the post-conference proceedings of the Third International Workshop on Machine Learning, Optimization, and Big Data, MOD 2017, held in Volterra, Italy, in September 2017. The 50 full papers presented were carefully reviewed and selected from 126 submissions. The papers cover topics in the field of machine learning, artificial intelligence, computational optimization and data science presenting a substantial array of ideas, technologies, algorithms, methods and applications.

Machine Learning, Optimization, and Big Data

As the use of high-throughput screening expands and creates more interest in the academic community, the need for detailed reference materials becomes ever more pressing. Cell-Based Assays for High-Throughput Screening: Methods and Protocols aims to fill an important part of this need by providing an easily accessible reference volume for cell-based phenotypic screening. Leading researchers in the field contribute state-of-the-art methods with actionable protocols covering four major areas of study: model biological systems, screening modalities and assay systems, detection technologies, and approaches to data analysis. Written in the highly successful Methods in Molecular BiologyTM series format, each chapter includes a brief introduction to the subject, lists of necessary materials and reagents, step-by-step laboratory protocols, and a Notes section detailing tips on troubleshooting and avoiding known pitfalls. Cutting-edge and easy-to-use, Cell-Based Assays for High-Throughput Screening: Methods and Protocols presents an overview of relevant approaches, enabling the direct application of existing methods to new discoveries while also inspiring researchers to approach their screening projects in a conceptually modular fashion, enhancing the power to discover through new combinations of existing approaches.

ROMANCE ACTION & ADVENTURE MYSTERY & THRILLER BIOGRAPHIES & HISTORY CHILDREN'S YOUNG ADULT FANTASY HISTORICAL FICTION HORROR LITERARY FICTION NON-FICTION SCIENCE FICTION