Explorations in Semantic Parallelism

Programming with Microsoft Visual Basic 2015

Pre-Calculus For Dummies

Reveal Algebra 2

Numerical Solution of Ordinary Differential Equations

Explorations in Semantic Parallelism

This is the first numerical analysis text to use Sage for the implementation of algorithms and can be used in a one-semester course for undergraduates in mathematics, math education, computer science/information technology, engineering, and physical sciences. The primary aim of this text is to simplify understanding of the theories and ideas from a numerical analysis/numerical methods course via a modern programming language like Sage. Aside from the presentation of fundamental theoretical notions on numerical methods, the book includes several exercises that are oriented to real-world application. Answers may be verified using Sage. The presented code, written in core components of Sage, are backward compatible, i.e., easily applicable to other software systems such as Mathematica®. Sage is open source software and uses Python-like syntax. Previous Python programming experience is not a requirement for the reader, though familiarity with any programming language is a plus. Moreover, the code can be written using any web browser and is therefore useful with Laptops, Tablets, iPhones, Smartphones, etc. All Sage code that is presented in the text is openly available on SpringerLink.com.

Programming with Microsoft Visual Basic 2015 Applying linguistic theory to the study of Homeric style, Egbert J. Bakker offers a highly innovative approach to oral poetry, particularly the poetry of Homer. By situating formulas and other features of oral style within the wider contexts of spoken language and communication, he moves the study of oral poetry beyond the landmark work of Milman Parry and Albert Lord. One of the book's central features, related to the research of the linguist Wallace Chafe, is Bakker's conception of spoken discourse as a sequence of short speech units reflecting the flow of speech through the consciousness of the speaker. Bakker shows that such short speech units are present in Homeric poetry, with significant consequences for Homeric metrics and poetics. Considering Homeric discourse as a speech process rather than as the finished product associated with written discourse, Bakker's book offers a new perspective on Homer as well as on other archaic Greek texts. Here Homeric discourse appears as speech in its own right, and is freed, Bakker suggests, from the bias of modern writing style which too easily views Homeric discourse as archaic, implicitly taking the style of classical period texts as the norm. Bakker's perspective reaches beyond syntax and stylistics into the very heart of Homeric— and, ultimately, oral— poetics, altering the status of key features such as meter and formula, rethinking their relevance to the performance of Homeric poetry, and leading to surprising insights into the relation between "speech" and "text" in the encounter of the Homeric tradition with writing.

Pre-Calculus For Dummies This book constitutes the proceedings of the Workshops held in conjunction with SAFECOMP 2019, 38th International Conference on Computer Safety, Reliability and Security, in September 2019 in Turku, Finland. The 32 regular papers included in this volume were carefully reviewed and selected from 43 submissions; the book also contains two invited papers. The workshops included in this volume are: ASSURE 2019: 7th International Workshop on Assurance Cases for Software-Intensive Systems DECSOs 2019: 14th ERCIM/EWICS/ARTEMIS Workshop on Dependable Smart Embedded and Cyber-Physical Systems and Systems-of-Systems SASSUR 2019: 8th International Workshop on Next Generation of System Assurance Approaches for Safety-Critical Systems STRIVE 2019: Second International Workshop on Safety, security, and privacy in automotive systems WASE 2019: Second International Workshop on Artificial Intelligence Safety Engineering

Reveal Algebra 2 SpringBoard Mathematics is a highly engaging, student-centered instructional program. This revised edition of SpringBoard is based on the standards defined by the College and Career Readiness Standards for Mathematics for each course. The program may be used as a core curriculum that will provide the instructional content that students need to be prepared for future mathematical courses.

Numerical Solution of Ordinary Differential Equations Background, phonology, morphology, syntax, texts nonsacred and sacred, dictionary Y-E.

Poetry in Speech The twin challenge of meeting global energy demands in the face of growing economies and populations and restricting greenhouse gas emissions is one of the most daunting ones that humanity has ever faced. Smart electrical generation and distribution infrastructure will play a crucial role in meeting these challenges. We would need to develop capabilities to handle large volumes of data generated by the power system components like PMUs, DFRs and other data acquisition devices as well as by the capacity to process these data at high resolution via multi-scale and multi-period simulations, cascading and security analysis, interaction between hybrid systems (electric, transport, gas, oil, coal, etc.) and so on, to get meaningful information in real time to ensure a secure, reliable and stable power
system of equations by means of finite difference methods. Unlike many of the traditional academic works on the topic, this book was written for practitioners. Accordingly, it especially addresses: the construction of finite difference schemes, formulation and implementation of algorithms, verification of implementations, analyses of physical behavior as implied by the numerical solutions, and how to apply the methods and software to solve problems in the fields of physics and biology.

The Interface Between Syntax and Discourse in Korafo TRENDS IN LINGUISTICS is a series of books that open new perspectives in our understanding of language. The series publishes state-of-the-art work on core areas of linguistics across theoretical frameworks as well as studies that provide new insights by building bridges to neighbouring fields such as neuroscience and cognitive science. TRENDS IN LINGUISTICS considers itself a forum for cutting-edge research based on solid empirical data on language in its various manifestations, including sign languages. It regards linguistic variation in its synchronic and diachronic dimensions as well as in its social contexts as important sources of insight for a better understanding of the design of linguistic systems and the ecology and evolution of language. TRENDS IN LINGUISTICS publishes monographs and outstanding dissertations as well as edited volumes, which provide the opportunity to address controversial topics from different empirical and theoretical viewpoints. High quality standards are ensured through anonymous reviewing.

Algebra

A Grammar of Makasar

Computer and Information Science Applications in Bioprocess Engineering Biotechnology has been labelled as one of the key technologies of the last two decades of the 20th Century, offering boundless solutions to problems ranging from food and agricultural production to pharmaceutical and medical applications, as well as environmental and bioremediation problems. Biological processes, however, are complex and the prevailing mechanisms are either unknown or poorly understood. This means that adequate techniques for data acquisition and analysis, leading to appropriate modeling and simulation packages that can be superimposed on the engineering principles, need to be routine tools for future biotechnologists. The present volume presents a masterly summary of the most recent work in the field, covering: instrumentation systems; enzyme technology; environmental biotechnology; food applications; and metabolic engineering.

An Introduction to Celestial Mechanics This volume is an up-to-date, concise introduction to bilingualism and multilingualism in schools, in the workplace, and in international institutions in a globalized world. The authors use a problem-solving approach and ask broad questions about bilingualism and multilingualism in society, including the question of language acquisition versus maintenance of bilingualism. Key features: provides a state-of-the-art description of different areas in the context of multilingualism and multilingual communication presents a critical appraisal of the relevance of the field, offers solutions of everyday language-related problems international handbook with contributions from renown experts in the field

Handbook of Multilingualism and Multilingual Communication Readers learn to master the basics of effective programming as they work through Visual Basic 2015’s latest features with the wealth of hands-on applications in this book’s engaging real-world setting. PROGRAMMING WITH MICROSOFT VISUAL BASIC 2015, 7E by best-selling author Diane Zak offers an ideal introduction to programming with a dynamic visual presentation, step-by-step tutorials, and strategically placed activity boxes. New hands-on applications, timely examples, and practical exercises help you learn how to effectively plan and create interactive Visual Basic 2015 applications. Important Notice: Media content referenced within the product description or the product text may not be available in the ebook version.

High Performance Computing in Power and Energy Systems The book describes the Makasar language of South Sulawesi, Indonesia, drawing heavily on three centuries of literary sources. Makasarese is notable as head–marking and ergative/absolutive in alignment, and its large number of geminate and pre-glottalised consonants.

Springboard Mathematics High school algebra, grades 9-12.

Numerical Analysis Using Sage This open access book explores the concept of Industry 4.0, which presents a considerable challenge for the production and service sectors. While digitization initiatives are usually integrated into the central corporate strategy of larger companies, smaller firms often have problems putting Industry 4.0 paradigms into practice. Small and medium-sized enterprises (SMEs) possess neither the human nor financial resources to systematically investigate the potential and risks of introducing Industry 4.0. Addressing this obstacle, the international team of authors focuses on the development of smart manufacturing concepts, logistics solutions and managerial models specifically for SMEs.
digital transformation, this innovative and timely book will be of great use to scholars researching technology management, digitization and small business, as well as practitioners within manufacturing companies.

Citation-based Plagiarism Detection

Reciprocals and Reflexives Excel is by far the most widely distributed data analysis software but few users are aware of its full powers. Advanced Excel For Scientific Data Analysis takes off from where most books dealing with scientific applications of Excel end. It focuses on three areas: least squares, Fourier transformation, and digital simulation and illustrates these with extensive examples, often taken from the literature. It also includes and describes a number of sample macros and functions to facilitate common data analysis tasks. These macros and functions are provided in uncompiled, computer-readable, easily modifiable form; readers can therefore use them as starting points for making their own personalized data analysis tools. Detailed descriptions and sample applications of standard and specialized uses of least squares for fitting data to a variety of functions, including resolving multi-component spectra; standard processes such as calibration curves and extrapolation; custom macros for general "error" propagation, standard deviations of Solver results, weighted or equidistant least squares, Gram-Schmidt orthogonalization, Fourier transformation, convolution and deconvolution, time-frequency analysis, and data mapping. There are also worked examples showing how to use centering, the covariance matrix, imprecision contours, and Wiener filtering and custom functions for bisections, Lagrange interpolation, Euler and Runge-Kutta integration.

History at the Limit of World-History

Introduction to Applied Linear Algebra

Innovations in Computer Science and Engineering A classic problem in mathematics is solving systems of polynomial equations in several unknowns. Today, polynomial models are ubiquitous and widely used across the sciences. They arise in robotics, coding theory, optimization, mathematical biology, computer vision, game theory, statistics, and numerous other areas. This book furnishes a bridge across mathematical disciplines and exposes many facets of systems of polynomial equations. It covers a wide spectrum of mathematical techniques and algorithms, both symbolic and numerical. The set of solutions to a system of polynomial equations is an algebraic variety - the basic object of algebraic geometry. The algorithmic study of algebraic varieties is the central theme of computational algebraic geometry. Exciting recent developments in computer software for geometric calculations have revolutionized the field. Formerly inaccessible problems are now tractable, providing fertile ground for experimentation and conjecture. The first half of the book gives a snapshot of the state of the art of the topic. Familiar themes are covered in the first five chapters, including polynomials in one variable, Grobner bases of zero-dimensional ideals, Newton polytopes and Bernstein's Theorem, multidimensional resultants, and primary decomposition. The second half of the book explores polynomial equations from a variety of novel and unexpected angles. It introduces interdisciplinary connections, discusses highlights of current research, and outlines possible future algorithms. Topics include computation of Nash equilibria in game theory, semidefinite programming and the real Nullstellensatz, the algebraic geometry of statistical models, the piecewise-linear geometry of valuations and amoebas, and the Ehrenpreis-Palamodov theorem on linear partial differential equations with constant coefficients. Throughout the text, there are many hands-on examples and exercises, including short but complete sessions in Maple, MATLAB, Macaulay 2, Singular, PHCpack, CoCoA, and SOSTools software. These examples will be particularly useful for readers with no background in algebraic geometry or commutative algebra. Within minutes, readers can learn how to type in polynomial equations and actually see some meaningful results on their computer screens. Prerequisites include basic abstract and computational algebra. The book is designed as a text for a graduate course in computational algebra.

Integrated Math, Course 1, Student Edition The past is not just, as has been famously said, another country with foreign customs: it is a contested and colonized terrain. Indigenous histories have been expropriated, eclipsed, sometimes even wholly eradicated, in the service of imperialist aims buttressed by a distinctly Western philosophy of history. Ranajit Guha, perhaps the most influential figure in postcolonial and subaltern studies at work today, offers a critique of such historiography by taking issue with the Hegelian concept of World-history. That concept, he contends, reduces the course of human history to the amoral record of states and empires, great men and clashing civilizations. It renders invisible the quotidian experience of ordinary people and casts off all that came before it into the nether-existence known as "Prehistory." On the Indian subcontinent, Guha believes, this Western way of looking at the past was so successfully insinuated by British colonization that few today can see clearly its ongoing and pernicious influence. He argues that to break out of this habit of mind and go beyond the Eurocentric and statist limit of World-history historians should learn from literature to make their narratives doubly inclusive: to extend them in scope not only to make room for the pasts of the so-called peoples without history but to address the historicality of everyday life as well. Only then, as Guha demonstrates through an examination of Rabindranath Tagore's critique of historiography, can we recapture a more fully human past of 'experience and wonder.'

Traditional Music in Modern Java Weekly Practice: Math for grade 2 provides daily practice for key concepts such as time, money, measurement, place value, word problems, interpreting graphs, and more. Complete with flash cards and activities, this series supports classroom success by offering extra practice at home. Improve students' math skills in the classroom while also providing a way to continue the learning process at home. Weekly Practice: Math for grade 2 allows you to reinforce math topics at school and at home by offering 40 weeks of standards-based activities and skill review. The unique layout and engaging exercises keep students interested as they build concept knowledge and essential skills. Reproducible at-home activities and flash cards are also included to encourage the home-to-school
connection that’s essential for student success. Weekly Practice is the perfect time-saving resource for creating standards-aligned homework packets and keeping students’ skills sharp all year long. The Weekly Practice series for kindergarten to grade 5 provides 40 weeks of comprehensive skill review. Each 192-page workbook focuses on critical skills and concepts that meet the standards for language arts or math. Designed to help students achieve subject mastery, each book includes four days of practice activities, weekly off-the-page activities, Common Core State Standards alignment matrix, flash cards, and an answer key. Weekly Practice offers an effortless way to integrate language arts or math practice into daily classroom instruction.

MATH IN SOCIETY Peer reviewed articles from the Natural Language Processing and Cognitive Science (NLPCS) 2014 meeting in October 2014 workshop. The meeting fosters interactions among researchers and practitioners in NLP by taking a Cognitive Science perspective. Articles cover topics such as artificial intelligence, computational linguistics, psycholinguistics, cognitive psychology and language learning.

Finite Difference Computing with PDEs Digital Signal Processing for Communication Systems examines the plans for the future and the progress that has already been made, in the field of DSP and its applications to communication systems. The book pursues the progression from communication and information theory through to the implementation, evaluation and performance enhancing of practical communication systems using DSP technology. Digital Signal Processing for Communication Systems looks at various types of coding and modulation techniques, describing different applications of Turbo-Codes, BCH codes and general block codes, pulse modulations, and combined modulation and coding in order to improve the overall system performance. The book examines DSP applications in measurements performed for channel characterisation, pursues the use of DSP for design of effective channel simulators, and discusses equalization and detection of various signal formats for different channels. A number of system design issues are presented where digital signal processing is involved, reporting on the successful implementation of the system components using DSP technology, and including the problems involved with implementation of some DSP algorithms. Digital Signal Processing for Communication Systems serves as an excellent resource for professionals and researches who deal with digital signal processing for communication systems, and may serve as a text for advanced courses on the subject.

Simulation Modeling and Arena

Advanced Excel for Scientific Data Analysis Plagiarism is a problem with far-reaching consequences for the sciences. However, even today’s best software-based systems cannot reliably identify cut-and-paste plagiarism, as well as structural and idea plagiarism often remain undetected. This weakness of current systems results in a large percentage of scientific plagiarism going undetected. Bela Gipp provides an overview of the state-of-the-art in plagiarism detection and an analysis of why these approaches fail to detect disguised plagiarism forms. The author proposes Citation-based Plagiarism Detection to address this shortcoming. Unlike character-based approaches, this approach does not rely on text comparisons alone, but analyzes citation patterns within documents to form a language-independent “semantic fingerprint” for similarity assessment. The practicability of Citation-based Plagiarism Detection was proven by its capability to identify so-far non-machine detectable plagiarism in scientific publications.

The Yindjibarndi Language Musicologist Judith Becker contends that sociopolitical changes in Javanese society since the 1940s are reflected in changes in the structure of gamelan music, which is one of the traditional musics of Java. She sees gamelan music as a musical system in a state of crisis, unsure of its proper function and direction. While traditional gamelan musical structures supported old Hindu-Javanese concepts of cosmology and kingship, modern innovations reflect Indonesian nationalism and a desire to become a “twentieth century nation.” In particular, the introduction of Western musical notation, which Becker describes as “the most pervasive, penetrating, and ultimately the most insidious type of Western influence,” is changing gamelan from an aural to a written tradition. Becker examines the works of contemporary composers Ki Wasitodipuro and Ki Nartosabdho to illustrate modern innovations in gamelan compositions and the attitudes of composers to their music, as they attempt to compromise between the ethos and structure of traditional gamelan music and the changing tastes and attitudes of the modern Indonesian nation. In addition to her interpretation of the political influence on gamelan music, Becker includes four appendices that ethnomusicologists will find valuable.

The Weekly Practice series for kindergarten to grade 5 provides 40 weeks of comprehensive skill review. Each 192-page workbook focuses on critical skills and concepts that meet the standards for language arts or math. Designed to help students achieve subject mastery, each book includes four days of practice activities, weekly off-the-page activities, Common Core State Standards alignment matrix, flash cards, and an answer key. Weekly Practice offers an effortless way to integrate language arts or math practice into daily classroom instruction.

Generating Narratives

Natural Language Processing and Cognitive Science A concise introduction to numerical methodand the mathematical framework needed to understand their performance Numerical Solution of Ordinary Differential Equations presents a complete and easy-to-follow introduction to classical topics in the numerical solution of ordinary differential equations. The book’s approach not only explains the presented mathematics, but also helps readers understand how these numerical methods are used to solve real-world problems. Unifying perspectives are provided throughout the text, bringing together and categorizing different types of problems in order to help readers comprehend the applications of ordinary differential equations. In addition, the authors’ collective academic experience ensures a coherent and accessible discussion of key topics, including: Euler’s method Taylor and Runge-Kutta methods General error analysis for multi-step methods Stiff differential equations Differential algebraic equations Two-point boundary value problems Volterra integral equations Each chapter features problem sets that enable readers to test and build their knowledge of the presented methods, and a related Web site features MATLAB® programs that facilitate the exploration of numerical methods in greater depth. Detailed references outline
additional literature on both analytical and numerical aspects of ordinary differential equations for further exploration of individual topics. Numerical Solution of Ordinary Differential Equations is an excellent textbook for courses on the numerical solution of differential equations at the upper-undergraduate and beginning graduate levels. It also serves as a valuable reference for researchers in the fields of mathematics and engineering.

The Numerical Analysis of Ordinary Differential Equations Emphasizes a hands-on approach to learning statistical analysis and model building through the use of comprehensive examples, problems sets, and software applications. With a unique blend of theory and applications, Simulation Modeling and Arena, Second Edition integrates coverage of statistical analysis and model building to emphasize the importance of both topics in simulation. Featuring introductory coverage on how simulation works and why it matters, the Second Edition expands coverage on static simulation and the applications of spreadsheets to perform simulation. The new edition also introduces the use of the open source statistical package, R, for both performing statistical testing and fitting distributions. In addition, the models are presented in a clear and precise pseudo-code form, which aids in understanding and model communication. Simulation Modeling and Arena, Second Edition also features: Updated coverage of necessary statistical modeling concepts such as confidence interval construction, hypothesis testing, and parameter estimation. Additional examples of the simulation clock within discrete event simulation modeling involving the mechanics of time advancement by hand. Simulation A guide to the Arena Run Controller, which features a debugging scenario. New homework problems that cover a wider range of engineering applications in transportation, logistics, healthcare, and computer science. A related website with an Instructor’s Solutions Manual, PowerPoint® slides, test bank questions, and data sets for each chapter. Simulation Modeling and Arena, Second Edition is an ideal textbook for upper-undergraduate and graduate courses in modeling and simulation within statistics, mathematics, industrial and civil engineering, construction management, business, computer science, and other departments where simulation is practiced. The book is also an excellent reference for professionals interested in mathematical modeling, simulation, and Arena.

The Western Desert Code This book features a collection of high-quality, peer-reviewed research papers presented at the 7th International Conference on Innovations in Computer Science & Engineering (IICISE 2019), held at Guru Nanak Institutions, Hyderabad, India, on 16–17 August 2019. Written by researchers from academia and industry, the book discusses a wide variety of industrial, engineering, and scientific applications of the emerging techniques in the field of computer science.

Solving Systems of Polynomial Equations This volume constitutes the thoroughly refereed post-conference proceedings of the First and Second International Symposia on Sanskrit Computational Linguistics, held in Rocquencourt, France, in October 2007 and in Providence, RI, USA, in May 2008 respectively. The 11 revised full papers of the first and the 12 revised papers of the second symposium presented with an introduction and a keynote talk were carefully reviewed and selected from the lectures given at both events. The papers address several topics such as the structure of the Paninian grammatical system, computational linguistics, lexicography, lexical databases, formal description of sanskrit grammar, phonology and morphology, machine translation, philology, and OCR.

Sanskrit Computational Linguistics This collection of eighteen papers explores issues in the study of semantic parallelism— a world-wide tradition in the composition of oral poetry. It is concerned with both comparative issues and the intensive study of a single living poetic tradition of composition in strict canonical parallelism. The papers in the volume were written at intervals from 1971 to 2014 —a period of over forty years. They are a summation of a career-long research effort that continues to take shape. The concluding essay reflects on possible directions for future research.

Math, Grade 2 This collection of original papers is a representative survey of recent theoretical and cross-linguistic work on reciprocity and reflexivity. Its most remarkable feature is its combination of formal approaches, case studies on individual languages and broad typological surveys in one volume, showing that the interaction of formal approaches to grammar and typology may lead to new insights and results for both fields. Among the major issues addressed in this volume are the following: How can our current knowledge about the space and limits of variation in the relevant domain be captured in a structural typology of reciprocity? What light can such a typology shed on the facts of particular languages or groups of languages (e.g. Austroasiatic)? How can recent descriptive and typological insights be incorporated into a revised and more adequate version of the Binding Theory? How do verbal semantics, argument structure and reciprocal markers interact? How can we explain the pervasive patterns of ambiguity observable in these two domains, especially the use of the same forms both as reflexive and reciprocal markers? What are the major sources in the historical development of reciprocal markers? This combination of large-scale typological surveys with in-depth studies of particular languages provides new answers to old questions and raises important new questions for future research.

Industry 4.0 for SMEs Offers an introduction to the principles of pre-calculus, covering such topics as functions, law of sines and cosines, identities, sequences, series, and binomials.

Core Connections A groundbreaking introduction to vectors, matrices, and least squares for engineering applications, offering a wealth of practical examples.

Springboard Mathematics

Digital Signal Processing for Communication Systems Includes: Print Student Edition