Numerical Differential Protection Gerhard Ziegler

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Electrical Power System Protection
Transcending Tradition: Jewish Mathematicians in German Speaking Academic Culture
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Classical and Quantum Dynamics in Condensed Phase Simulations
Global Change and the Earth System
Varieties of Capitalism
Adsorption Analysis: Equilibria And Kinetics (With Cd Containing Computer Matlab Programs)
Applied Cyber Security and the Smart Grid
Numerical Differential Protection
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Tools and Algorithms for the Construction and Analysis of Systems
Taking an Exposure History
Diversity Dimensions in Mathematics and Language Learning
Textbook of Organic Medicinal and Pharmaceutical Chemistry
Handbook of Intercultural Communication and Cooperation
Development of Novel Vaccines
Ecolinguistics Reader
Properties and Applications of Silicon Carbide
Substation Automation Systems
Interfering Resonances

PIPER CARDENAS

A Literature Search and Critical Analysis of Biological Trickling Filter Studies A&C Black
“Development of novel vaccines” gives an overview of the tasks in basic research leading to the final product – the vaccine and its applications, belonging to the most complex biologics in the pharmaceutical field. Distinct from most textbooks in the vaccine arena, the current issue focuses on the translational aspect, namely, how research results can be transformed into life-saving medical interventions. Each chapter of the book deals with one important paradigm for the development of novel vaccines, along the value chain towards the final vaccine, and furthermore, with the inevitable tools required for this process. Contributions are prepared by teams of scientists, all of whom are experts in the field, most of them anchored in biomedical organizations devoted to translational culture, thereby lighting the certain topics from different views. This volume is a must read for researchers engaged in vaccine development and who really want to see their research results to become a product.
Combinatorial Methods for Chemical and Biological Sensors Springer Science & Business Media
Social Capital, the advantage created by location in social structure, is a critical element in business strategy. Who has it, how it works, and how to develop it have become key questions as markets, organizations, and careers become more and more dependent on informal, discretionary relationships. The formal organization deals with accountability; Everything else flows through the informal: advice, coordination, cooperation friendship, gossip, knowledge, trust. Informal relations have always been with us, they have always mattered. What is new is the range of activities in which they now matter, and the emerging clarity we have about how they create advantage for certain people at the expense of others. This is done by brokerage and closure. Ronald S. Burt builds upon his celebrated work in this area to explore the nature of brokerage and closure. Brokerage is the activity of people who live at the intersection of social worlds, who have a vision advantage of seeing and developing good ideas, an advantage which can be seen in their compensation, recognition, and the responsibility they're entrusted with in comparison to their peers. Closure is the tightening of coordination in a closed network of people, and people who do this do well as a complement to brokers because of the trust and alignment they create. Brokerage and Closure explores how these elements work together to define social capital, showing how in the business world reputation has come to replace authority, pursued opportunity assignment, and reward has come to be associated with achieving competitive advantage in a social order of continuous disequilibrium.
Handbook of Particle Detection and Imaging Springer Science & Business Media
Military recruitment will become more difficult in times of demographic aging. The question arises whether demographic change will constrain the capacity of aging states like Germany to conduct foreign policy and pursue their national security interests. Since contemporary military operations still display a strong human element, particular scrutiny is given to the empirical analysis of the determinants of military propensity and military service among youth. An additional human capital projection until 2030 illustrates how the decline in the youth population will interact with trends in educational attainment and adolescent health to further complicate military recruitment in the future. A concluding review of recruiting practices in other NATO countries provides insight in best-practice policy options to reduce the military’s sensitivity to demographic change. Following this approach, the book gives prominence to a topic that has thus far been under-represented in the greater discussion of demographic change today, namely the demographic impact on international affairs and strategic calculations.
Brokerage and Closure Greenwood
A two volume compilation, review and critique of the literature on biological trickling filter studies and related pollution abatement processes have been made. In the report, the literature review and critical analysis, is divided into: Introduction, definitions, history and background theory of the trickling filter process; Plant design, materials of construction, operation, maintenance and performance; Trickling filter research and development approaches, ecology, and patents, and Applications of trickling filter to specific industrial wastes. Based on the review, several general conclusions were drawn. There is no well-defined theory of design and operation. Much published work was redundant, and European efforts were not readily accepted in the United States, and vice versa. The literature reflects cycles of interest in trickling filters. The process is not applicable to all pollution problems, but its shock survival capabilities and rapid flow-through time are definite advantages which cannot be overlooked in any design of a waste treatment facility. In Vol. 2 a bibliography of 5,665 references relating to biological trickling filters studies is presented. Author references are listed in alphabetical sequence based upon the surname of the author. Anonymous articles are listed after the alphabetical author sequence, according to the alphabetical sequence of the journal, and chronologically within the journal.
Handbook of Biomaterial Properties Springer Science & Business Media
The school held at Villa Marigola, Lerici, Italy, in July 1997 was very much an educational experiment aimed not just at teaching a new generation of students the latest developments in computer simulation methods and theory, but also at bringing together researchers from the condensed matter computer simulation community, the biophysical chemistry community and the quantum dynamics community to confront the shared problem: the development of methods to treat the dynamics of quantum condensed phase systems. This volume collects the lectures delivered there. Due to the focus of the school, the contributions divide along natural lines into two broad groups: (1) the most sophisticated forms of the art of computer simulation, including biased phase space sampling schemes, methods which address the multiplicity of time scales in condensed phase problems, and static equilibrium methods for treating quantum systems; (2) the contributions on quantum dynamics, including methods for mixing quantum and classical dynamics in

condensed phase simulations and methods capable of treating all degrees of freedom quantum-mechanically. Contents:Barrier Crossing: Classical Theory of Rare but Important Events (D Chandler)Monte Carlo Simulations (D Frenkel)Molecular Dynamics Methods for the Enhanced Sampling of Phase Space (B J Berne)Constrained and Nonequilibrium Molecular Dynamics (G Ciccotti & M Ferrario)From Erying to Kramers: Computation of Diffusive Barrier Crossing Rates (M J Ruiz-Montero)Monte Carlo Methods for Sampling of Rare Event States (W Janke)Proton Transfer in Ice (D Marx)Nudged Elastic Band Method for Finding Minimum Energy Paths of Transitions (H Jónsson et al.)RAW Quantum Transition State Theory (G Mills et al.)Dynamics of Peptide Folding (R Elber et al.)Theoretical Studies of Activated Processes in Biological Ion Channels (B Roux & S Crouzy)The Semiclassical Initial Value Representation for Including Quantum Effects in Molecular Dynamics Simulations (W H Miller)Tunneling in the Condensed Phase: Barrier Crossing and Dynamical Control (N Makri)Feynman Path Centroid Methods for Condensed Phase Quantum Dynamics (G A Voth)Quantum Molecular Dynamics Using Wigner Representation (V S Filinov et al.)Nonadiabatic Molecular Dynamics Methods for Diffusion (D Laria et al.)and other papers Readership: Computational and statistical physicists. Keywords:Quantum;Molecular Dynamics;DynamicsReviews: “... this volume is a useful introduction to currently popular, and widely-used techniques in chemical and statistical physics. The authors are well-respected researchers in the field and the level is appropriate to graduate students and researchers.” Journal of Statistical Physics

Point-of-care testing BoD – Books on Demand

Gerhard Ziegler Numerical Distance Protection Distance protection provides the basis for network protection in transmission systems and meshed distribution systems. Initially this book covers the fundamentals of distance protection and the special features of numerical technology. The emphasis is then placed on the application of numerical distance relays in distribution and transmission systems. This book is aimed at students and engineers who wish to familiarise themselves with the subject of power system protection, as well as the experienced user, entering the area of numerical distance protection. Furthermore it serves as a reference guide for solving application problems. Contents General principles of distance protection Numerical distance measurement Influencing signals Device configuration Application in distribution and industrial networks Application in transmission networks Protection settings Calculation examples Commissioning, testing and maintenance of protection systems

Germany's New Security Demographics Springer Science & Business Media

Distance protection provides the basis for network protection in transmission systems and meshed distribution systems. This book covers the fundamentals of distance protection and the special features of numerical technology. The emphasis is placed on the application of numerical distance relays in distribution and transmission systems. This book is aimed at students and engineers who wish to familiarise themselves with the subject of power system protection, as well as the experienced user, entering the area of numerical distance protection. Furthermore it serves as a reference guide for solving application problems. For this fourth edition all contents, especially the descriptions of numerical protection devices and the very useful appendix have been revised and updated.

An Assessment and Annotated Bibliography of Marine Bioluminescence Research: 1979-1987 Springer Science & Business Media

Electrical Power System Protection provides practising engineers with the most up-to-date and comprehensive one -volume reference and tutorial on power system protection available. Concentrating on fundamental methods and technology and with extensive examples drawn from current practice internationally, this book will be a major reference tool for engineers involved with and affected by power system protection.

Numerical Distance Protection PHI Learning Pvt. Ltd.

Applying the new economics of organisation and relational theories of the firm to the problem of understanding cross-national variation in the political economy, this volume elaborates a new understanding of the institutional differences that characterise the 'varieties of capitalism' worldwide.

Electrical Power System Protection John Wiley & Sons

Digital power system protection, as a subject, offers the use of computers in power line relaying which is the act of automatically controlling the power system via instrumentation and control devices. This book is an attempt to make a gentle introduction to the nitty-gritty of digital relays. Written in a simple, clear and student-friendly style, this text covers basics of digital processing of analog signals for the purpose of relaying. All important basic algorithms that are used in various types of digital relays have been explained. FIR and IIR filters have been presented in such a manner that students will be able to develop intuitive understanding. The book also covers DFT and FFT and synchrophasor technology in details. MATLAB programs and Excel simulations have been given to reinforce the comprehension of the algorithms. This book has been thoroughly class-room tested and based on course notes which is primarily intended for undergraduate and postgraduate students of electrical engineering. Key Features • In-depth coverage of DSP fundamentals • Pedagogical tools like figures, flowcharts, block diagrams and tables have been extensively used • Review questions are given at the end of each chapter • Extensive references to literature on power system protection

Transcending Tradition: Jewish Mathematicians in German Speaking Academic Culture Publicis

The assembly of this study started in 2013 during the preparation of the foundation of the Flexible Electrical Networks (FEN) Research Campus, an institution supported by the German Federal Ministry of Education and Science, concentrating on DC technology in power grids as an enabler for the energy transition. It reflects the state-of-the-art and research needs of DC technology against the background of application in public grids up until the year 2015. Topics as components, control, management and automation, high-, medium, and low-voltage grid concepts as well as social dimensions, economics, and impact on living beings are considered. After substantial editorial effort, its first public edition has become ready now. The aim of FEN is to investigate and to develop flexible power grids. Such grid will safeguard the future energy supply with a high share of fluctuating and decentralized renewable energy sources. At the same time, these grids will enable a reliable and affordable energy supply in the future. The objective is to provide new technologies and concepts for the security and quality of the energy supply in the transmission and distribution grids. To pursue this goal, the use of direct-current (DC) technology, based on power electronics, automation and communication technologies, plays an important role. Although DC technology is

not yet established as a standard technology in the public electrical power supply system, its high potential has been widely recognized. The use of DC is an enabler to make the future energy supply system more economical than a system based on alternating-current (AC), because of its superior properties in handling distributed and fluctuation power generation. Indeed, DC connections are already the most cost-efficient solution in cases of very high-power long-distance point-to-point transmission of electricity or via submarine cables. The objective of the FEN Research Campus is now to achieve and demonstrate feasibility of DC as a standard solution for future electrical grids, as described in this study.

Recommender Systems OUP Oxford

Substation Automation Systems: Design and Implementation aims to close the gap created by fast changing technologies impacting on a series of legacy principles related to how substation secondary systems are conceived and implemented. It is intended to help those who have to define and implement SAS, whilst also conforming to the current industry best practice standards. Key features: Project-oriented approach to all practical aspects of SAS design and project development. Uniquely focusses on the rapidly changing control aspect of substation design, using novel communication technologies and IEDs (Intelligent Electronic Devices). Covers the complete chain of SAS components and related equipment instead of purely concentrating on intelligent electronic devices and communication networks. Discusses control and monitoring facilities for auxiliary power systems. Contributes significantly to the understanding of the standard IEC 61850, which is viewed as a “black box” for a significant number of professionals around the world. Explains standard IEC 61850 – Communication networks and systems for power utility automation – to support all new systems networked to perform control, monitoring, automation, metering and protection functions. Written for practical application, this book is a valuable resource for professionals operating within different SAS project stages including the: specification process; contracting process; design and engineering process; integration process; testing process and the operation and maintenance process.

DIGITAL POWER SYSTEM PROTECTION John Wiley & Sons

Wie hängen sprachliche und mathematische Entwicklung zusammen? Dieser Frage wird derzeit mit großem Interesse aus unterschiedlichen Perspektiven nachgegangen. Dieser Sammelband vereint Erkenntnisse aus Psychologie, Neurowissenschaften, Mathematikdidaktik, (Psycho-)Linguistik und Mehrsprachigkeitsforschung. Der interdisziplinäre Ansatz bietet einen umfassenden Blick auf den aktuellen Forschungsstand, dargestellt von national und international renommierten Forschenden. Das Buch gliedert sich in drei Teile. Der erste Teil „Modelle und Theorien“ fasst theoretische Überlegungen zusammen und stellt Strukturen für Forschung und Praxis bereit. Dieser Teil dient dazu, den Grundstein für die anderen Teile sowie für zukünftige Forschung zu legen. Der zweite Teil „Kindergartenalter“ sowie der dritte Teil „Grundschulalter“ decken empirische Befunde über die Korrelation zwischen Sprache und mathematischem Lernen in der jeweiligen Altersgruppe ab. Ein besonderer Fokus liegt hierbei auf dem Aspekt der Mehrsprachigkeit. Damit bietet dieser Sammelband eine große Bandbreite fachspezifischen Wissens für Bildungswissenschaftler*innen, Lehramtsstudierende, Psycholog*innen und Forschende zur Mehrsprachigkeit.

Advances in Visual Informatics Springer Science & Business Media

The underlying technology and the range of test parameters available are evolving rapidly. The primary advantage of POCT is the convenience of performing the test close to the patient and the speed at which test results can be obtained, compared to sending a sample to a laboratory and waiting for results to be returned. Thus, a series of clinical applications are possible that can shorten the time for clinical decision-making about additional testing or therapy, as delays are no longer caused by preparation of clinical samples, transport, and central laboratory analysis. Tests in a POC format can now be found for many medical disciplines including endocrinology/diabetes, cardiology, nephrology, critical care, fertility, hematology/coagulation, infectious disease and microbiology, and general health screening. Point-of-care testing (POCT) enables health care personnel to perform clinical laboratory testing near the patient. The idea of conventional and POCT laboratory services presiding within a hospital seems contradictory; yet, they are, in fact, complementary: together POCT and central laboratory are important for the optimal functioning of diagnostic processes. They complement each other, provided that a dedicated POCT coordination integrates the quality assurance of POCT into the overall quality management system of the central laboratory. The motivation of the third edition of the POCT book from Luppa/Junker, which is now also available in English, is to explore and describe clinically relevant analytical techniques, organizational concepts for application and future perspectives of POCT. From descriptions of the opportunities that POCT can provide to the limitations that clinician’s must be cautioned about, this book provides an overview of the many aspects that challenge those who choose to implement POCT. Technologies, clinical applications, networking issues and quality regulations are described as well as a survey of future technologies that are on the future horizon. The editors have spent considerable efforts to update the book in general and to highlight the latest developments, e.g., novel POCT applications of nucleic acid testing for the rapid identification of infectious agents. Of particular note is also that a cross-country comparison of POCT quality rules is being described by a team of international experts in this field.

The Science of Hair Care, Second Edition Walter de Gruyter

This book covers topics of equilibria and kinetics of adsorption in porous media. Fundamental equilibria and kinetics are dealt with for homogeneous as well as heterogeneous particles. Five chapters of the book deal with equilibria and eight chapters deal with kinetics. Single component as well as multicomponent systems are discussed. In kinetics analysis, we deal with the various mass transport processes and their interactions inside a porous particle. Conventional approaches as well as the new approach using Maxwell-Stefan equations are presented. Various methods to measure diffusivity, such as the Differential Adsorption Bed (DAB), the time lag, the diffusion cell, chromatography, and the batch adsorber methods are also covered by the book. It can be used by lecturers and engineers who wish to carry out research in adsorption. A number of programming codes written in MatLab language are included so that readers can use them directly to better understand the behavior of single and multicomponent adsorption systems.

Encyclopedia of Pestilence, Pandemics, and Plagues [2 Volumes] John Wiley & Sons

This book provides tabular and text data relating to normal and diseased tissue materials and materials used in medical devices. Comprehensive and practical for students, researchers,

engineers, and practicing physicians who use implants, this book considers the materials aspects of both implantable materials and natural tissues and fluids. Examples of materials and topics covered include titanium, elastomers, degradable biomaterials, composites, scaffold materials for tissue engineering, dental implants, sterilization effects on material properties, metallic alloys, and much more. Each chapter author considers the intrinsic and interactive properties of biomaterials, as well as their appropriate applications and historical contexts. Now in an updated second edition, this book also contains two new chapters on the cornea and on vocal folds, as well as updated insights, data, and citations for several chapters.

Matlab - Modelling, Programming and Simulations Springer Science & Business Media

The term “chemical evolution of galaxies” refers to the evolution of abundances of chemical species in galaxies, which is due to nuclear processes occurring in stars and to gas flows into and out of galaxies. This book deals with the chemical evolution of galaxies of all morphological types (ellipticals, spirals and irregulars) and stresses the importance of the star formation histories in determining the properties of stellar populations in different galaxies. The topic is approached in a didactical and logical manner via galaxy evolution models which are compared with observational results obtained in the last two decades: The reader is given an introduction to the concept of chemical abundances and learns about the main stellar populations in our Galaxy as well as about the classification of galaxy types and their main observables. In the core of the book, the construction and solution of chemical evolution models are discussed in detail, followed by descriptions and interpretations of observations of the chemical evolution of the Milky Way, spheroidal galaxies, irregular galaxies and of cosmic chemical evolution. The aim of this book is to provide an introduction to students as well as to amend our present ideas in research; the book also summarizes the efforts made by authors in the past several years in order to further future research in the field.

Chemical Evolution of Galaxies Springer

This book constitutes the refereed proceedings of the Third International Conference on Advances in Visual Informatics, IVIC 2013, held in Selangor, Malaysia, in November 2013. The four keynotes and 69 papers presented were carefully reviewed and selected from various submissions. The papers focus on four tracks: computer visions and engineering; computer graphics and simulation; virtual and augmented reality; and visualization and social computing.

DC Technology in Utility Grids World Scientific

This open access two-volume set constitutes the proceedings of the 27th International Conference on Tools and Algorithms for the Construction and Analysis of Systems, TACAS 2021, which was held during March 27 – April 1, 2021, as part of the European Joint Conferences on Theory and Practice of Software, ETAPS 2021. The conference was planned to take place in Luxembourg and changed to an online format due to the COVID-19 pandemic. The total of 41 full papers presented in the proceedings was carefully reviewed and selected from 141 submissions. The volume also contains 7 tool papers; 6 Tool Demo papers, 9 SV-Comp Competition Papers. The papers are organized in topical sections as follows: Part I: Game Theory; SMT Verification; Probabilities; Timed Systems; Neural Networks; Analysis of Network Communication. Part II: Verification Techniques (not SMT); Case Studies; Proof Generation/Validation; Tool Papers; Tool Demo Papers; SV-Comp Tool Competition Papers.

Transient Electronics John Wiley & Sons

Digital protection is based on the use of computers in power line relaying. This book gives a detailed understanding of the principles and techniques underlying the application of digital technology and algorithms to protection.