Physical Sciences Mst Paper 2014

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Learning and Intelligent Optimization Panos M. Pardalos 2014-07-31 This book constitutes the thoroughly refereed post-conference proceedings of the 8th International Conference on Learning and Optimization, LION 8, which was held in Gainesville, FL, USA, in February 2014. The 33 contributions presented were carefully reviewed and selected for inclusion in this book. A large variety of topics are covered, such as algorithm configuration; multiobjective optimization; metaheuristics; graphs and networks; logistics and transportation; and biomedical applications.
Image Analysis and Recognition Aurélio Campilho 2014-10-09 The two volumes LNCS 8814 and 8815 constitute the thoroughly refereed proceedings of the 11th International Conference on Image Analysis and Recognition, ICIAR 2014, held in Vilamoura, Portugal, in October 2014. The 107 revised full papers presented were carefully reviewed and selected from 177 submissions. The papers are organized in the following topical sections: image representation and models; sparse representation; image restoration and enhancement; feature detection and image segmentation; classification and learning methods; document image analysis; image and video retrieval; remote sensing; applications; action, gestures and audio-visual recognition; biometrics; medical image processing and analysis; medical image segmentation; computer-aided diagnosis; retinal image analysis; 3D imaging; motion analysis and tracking; and robot vision.
Handbook of Quality of Life in African Societies Irma Eloff 2019-08-09 This handbook reflects on quality-of-life in societies on the continent of Africa. It provides a widely interdisciplinary text with insights on quality-of-life from a variety of scientific perspectives. The handbook is structured into sections covering themes of social context, culture and community; the environment and technology; health; education; and family. It is aimed at scholars who are working towards sustainable development at the intersections of multiple scientific fields and it provides measures of both objective and subjective quality-of-life. The scholarly contributions in the text are based on original research and it spans fields of research such as cultures of positivity, wellbeing, literacy and multilinguism, digital and mobile technologies, economic growth, food and nutrition, health promotion, community development, teacher education and family life. Some chapters take a broad approach and report on research findings involving thousands, and in one case millions, of participants. Other chapters zoom in and illustrate the importance of specificity in quality-of-life studies. Collectively, the handbook illuminates the particularity of quality-of-life in Africa, the unique contextual challenges and the resourcefulness with which challenges are being mediated. This handbook provides empirically grounded conceptualizations about life in Africa that also encapsulate the dynamic, ingenious ways in which we, as Africans, enhance our quality-of-life.
Corrosion of Aluminium Christian Vargel 2020-05-18 Corrosion of Aluminium, Second Edition, highlights the practical and general aspects of the corrosion of aluminium alloys. Chapters help readers new to the topic understand the metallurgical, chemical and physical features of aluminium alloys. Author Christian Vargel adopts a practitioner styled approach that is based on the expertise he has gained during a 40-year career in aluminium corrosion. The book assesses the corrosion resistance of aluminium, a key metric recognized as one of the main conditions for the development of many uses of aluminium in transport, construction, power transmission, and more. Features 600 bibliographic references, providing a comprehensive guide to over 100 years of related study Includes numerous illustrations to enhance study Presents practical applications across many industries Provides an accessible reference for both beginners and experts
STEM Integration in K-12 Education National Research Council 2014-02-28 STEM Integration in K-12 Education examines current efforts to connect the STEM disciplines in K-12 education. This report identifies and characterizes existing approaches to integrated STEM education, both in formal and after- and out-of-school settings. The report reviews the evidence for the impact of integrated approaches on various student outcomes, and it proposes a set of priority research questions to advance the understanding of integrated STEM education. STEM Integration in K-12 Education proposes a framework to provide a common perspective and vocabulary for researchers, practitioners, and others to identify, discuss, and investigate specific integrated STEM initiatives within the K-12 education system of the United States. STEM Integration in K-12 Education makes recommendations for designers of integrated STEM experiences, assessment developers, and researchers to design and document effective integrated STEM education. This report will help to further their work and improve the chances that some forms of integrated STEM education will make a positive difference in student learning and interest and other valued outcomes.
International Conference on Security and Privacy in Communication Networks Jing Tian 2015-11-21 This 2-volume set constitutes the thoroughly refereed post-conference proceedings of the 10th International Conference on Security and Privacy in Communication Networks, SecureComm 2014, held in Beijing, China, in September 2014. The 27 regular and 17 short papers presented were carefully reviewed. It also presents 22 papers accepted for four workshops (ATCS, SSS, SLSS, DAPRO) in conjunction with the conference, 6 doctoral symposium papers and 8 poster papers. The papers are grouped in the following topics: security and privacy in wired, wireless, mobile, hybrid, sensor, ad hoc networks; network intrusion detection and prevention, firewalls, packet filters; malware, and distributed denial of service; communication privacy and anonymity; network and internet forensics techniques; public key infrastructures, key management, credential management; secure routing, naming/addressing, network management; security and privacy in pervasive and ubiquitous computing; security & privacy for emerging technologies: VoIP, peer-to-peer and overlay network systems; security & isolation in data center networks; security & isolation in software defined networking.
Learning Science in Informal Environments National Research Council 2009-05-27 Informal science is a burgeoning field that operates across a broad range of venues and envisages learning outcomes for individuals, schools, families, and society. The evidence base that describes informal science, its promise, and effects is informed by a range of disciplines and perspectives, including field-based research, visitor studies, and psychological and anthropological studies of learning. Learning Science in Informal Environments draws together disparate literatures, synthesizes the state of knowledge, and articulates a common framework for the next generation of research on learning science in informal environments across a life span. Contributors include recognized experts in a range of disciplines--research and evaluation, exhibit designers, program developers, and educators. They also have experience in a range of settings--museums, after-school programs, science and technology centers, media enterprises, aquariums, zoos, state parks, and botanical gardens. Learning Science in Informal Environments is an invaluable guide for program and exhibit designers, evaluators, staff of science-rich informal learning institutions and community-based organizations, scientists interested in educational outreach, federal science agency education staff, and K-12 science educators.
Advanced Technology Related to Radar Signal, Imaging, and Radar Cross-Section Measurement Hirokazu Kobayashi 2020-06-16 Radar-related technology is mainly processed within the time and frequency domains but, at the same time, is a multi-dimensional integrated system including a spatial domain for transmitting and receiving electromagnetic waves. As a result of the enormous technological advancements of the pioneers actively discussed in this book, research and development in multi-dimensional undeveloped areas is expected to continue. This book contains state-of-the-art work that should guide your research.
Peterson's Grad Programs in Physical Sciences, Math, Ag Sciences, Envir & Natural Res 20154 (Grad 4) Peterson's 2014-10-21 Graduate Programs in the Physical Sciences, Mathematics, Agricultural Sciences, the Environment & Natural Resources 2015 contains more than 3,000 graduate programs in the relevant disciplines-including agriculture and food sciences, astronomy and astrophysics, chemistry, physics, mathematics, environmental sciences and management, natural resources, marine sciences, and more. Informative data profiles for more than 3,000 graduate programs at nearly 600 institutions are included, complete with facts and figures on accreditation, degree requirements, application deadlines and contact information, financial support, faculty, and student body profiles. Two-page in-depth descriptions, written by featured institutions, offer complete details on specific graduate programs, schools, or departments as well as information on faculty research. Comprehensive directories list programs in this volume, as well as others in the graduate series.
Advances in Artificial Intelligence Yukio Ohsawa 2020-02-03 This book presents selected and extended papers from the largest conference on artificial intelligence in Japan, which was expanded into an internationalized event for the first time in 2019: the 33rd Annual Conference of the Japanese Society for Artificial Intelligence (JSAI 2019), held on June 4–June 7, 2019 at TOKI MESSE in Niigata, Japan. The book's content has been divided into six major sections, on (I) knowledge engineering, (II) agents, (III) education and culture, (IV) natural language processing, (V) machine learning and data mining, and (VI) cyber physics. Given its scope, the book offers a valuable reference guide for professionals, undergraduate and graduate students engaged in disciplines, fields, technologies, or philosophies relevant to AI, e.g., computer/data science, robotics, linguistics, and physics, introducing them to recent advances in this area and discussing the human society of tomorrow.
Physics James S. Walker 2016-01-29 Intended for algebra-based introductory physics courses. An accessible, problem-solving approach to physics, grounded in real-world applications James Walker's Physics provides students with a solid conceptual understanding of physics that can be expressed quantitatively and applied to the world around them. Instructors and students praise Walker's Physics for its friendly voice, the author's talent for making complex concepts understandable, an inviting art program, and the range of excellent homework problems and example-types that provide guidance with problem solving. The Fifth Edition includes new "just-in-time" learning aids such as "Big Ideas" to quickly orient students to the overarching principles of each chapter, new Real-World Physics and Biological applications, and a wealth of problem-solving support features to coach students through the process of applying logic and reasoning to problem solving.TheFifth Editionis accompanied by MasteringPhysics, the leading online homework, tutorial, and assessment system. Also Available with MasteringPhysics MasteringPhysics from Pearson is the leading online homework, tutorial, and assessment system, designed to improve results by engaging students before, during, and after class with powerful content. Instructors ensure students arrive ready to learn by assigning educationally effective content before class and encourage critical thinking and retention with in-class resources such as Learning Catalytics. Students can further master concepts after class through traditional and adaptive homework assignments that provide hints and answer-specific feedback. The Mastering gradebook records scores for all automatically graded assignments in one place, while diagnostic tools give instructors access to rich data to assess student understanding and misconceptions. Mastering brings learning full circle by continuously adapting to each student and making learning more personal than ever--before, during, and after class. Note: You are purchasing a standalone product; MasteringPhysics does not come packaged with this content. Students, if interested in purchasing this title with MasteringPhysics, ask your instructor for the correct package ISBN and Course ID. Instructors, contact your Pearson representative for more information. If you would like to purchase both the physical text and MasteringPhysics, search for: 0321993764 / 9780321993762 Physics Plus MasteringPhysics with eText -- Access Card Package, 5/e Package consists of: 0321976444 / 9780321976444 Physics, 5/e 0321980395 / 9780321980397 MasteringPhysics with Pearson eText -- ValuePack Access Card -- for Physics, 5/e
The Fourth Industrial Revolution Klaus Schwab 2017 Between the 18th and 19th centuries, Britain experienced massive leaps in technological, scientific, and economical advancement
A New Concept of Matrix Algorithm for MST in Undirected Interval Valued Neutrosophic Graph Said Broumi In this chapter, we introduce a new algorithm for finding a minimum spanning tree (MST) of an undirected neutrosophic weighted connected graph whose edge weights are represented by an interval valued neutrosophic number.
Recent Advances in Medicinal Chemistry Atta-ur-Rahman 2015-06-16 Originally published by Bentham and now distributed by Elsevier, Recent Advances in Medicinal Chemistry, Volume 1 covers leading-edge research and recent developments in rational drug design, synthetic chemistry, bioorganic chemistry, high-throughput screening, combinatorial chemistry, drug targets, and natural product research and structure-activity relationship studies. The fourteen updated reviews include unique experimental data and references, and each article highlights an important topic in current medicinal chemistry research. Topics covered include: aureolic acid group of anti-cancer antibiotics and non-steroidal anti-inflammatory drugs; aromatase inhibitors in adjuvant endocrine treatment of early-stage breast cancer in postmenopausal women; Rho GTPases and statins in targeting and developing therapies for tumors; and more. Edited and written by leading experts in medicinal chemistry research Reviews recent advances in the field, including the characterization of inorganic nanomaterials as therapeutic vehicles Covers a variety of topical areas, such as HPLC and in the analysis of tricyclic antidepressants in biological samples, and tannins and their influence on health
Brain Informatics and Health Giorgio A. Ascoli 2016-09-22 This book constitutes the refereed proceedings of the International Conference on Brain and Health Informatics, BHI 2016, held in Omaha, USA, in October 2016. The 37 revised full papers, including two workshop papers from BAI 2016, presented were carefully reviewed and selected for inclusion in the book. The papers are organized in topical sections on cognitive and computational foundations of brain science; investigations of human information processing systems; brain big data analytics, curation and management; new methodologies for brain and mental health; brain-inspired intelligence and computing; brain and artificial intelligence.
Advances in Digital Image Processing and Information Technology Dhinaharan Nagamalai 2011-09-14 This book constitutes the refereed proceedings of the First International Conference on Digital Image Processing and Pattern Recognition, DPPR 2011, held in Tirunelveli, India, in September 2011. The 48 revised full papers were carefully reviewed and selected from about 400 submissions. The conference brought together leading researchers, engineers and scientists in the domain of Digital Image Processing and Pattern Recognition. The papers cover all theoretical and practical aspects of the field and present new advances and current research results in two tracks, namely: digital image processing and pattern recognition, and computer science, engineering and information technology.
Design and Measurement Strategies for Meaningful Learning Gómez Ramos, José Luis 2022-04-01 Teaching content and measuring content are frequently considered separate entities when designing teaching instruction. This can create a disconnect between how students are taught and how well they succeed when it comes time for assessment. To heal this rift, the theory of meaningful learning is a potential solution for designing effective teaching-learning and assessment materials. Design and Measurement Strategies for Meaningful Learning considers the best practices, challenges, and opportunities of instructional design as well as the theory and impact of meaningful learning. It provides educators with an essential text instructing them on how to successfully design and measure the content they teach. Covering a wide range of topics such as blended learning, online interaction, and learning assessment, this reference work is ideal for teachers, instructional designers, curriculum developers, policymakers, administrators, academicians, researchers, practitioners, and students.
Mine Safety Science and Engineering Debi Prasad Tripathy 2019-09-19 In Mining Engineering operations, mines act as sources of constant danger and risk to the miners and may result in disasters unless mining is done with safety legislations and practices in place. Mine safety engineers promote and enforce mine safety and health by complying with the established safety standards, policies, guidelines and regulations. These innovative and practical methods for ensuring safe mining operations are discussed in this book including technological advancements in the field. It will prove useful as reference for engineering and safety professionals working in the mining industry, regulators, researchers, and students in the field of mining engineering.
Advances in Nuclear Science and Technology Ernest J. Henley 2014-05-09 Advances in Nuclear Science and Technology, Volume 8 discusses the development of nuclear power in several countries throughout the world. This book discusses the world's largest program of land-based electricity production in the United States. Organized into six chapters, this volume begins with an overview of the phenomenon of quasi-exponential behavior by examining two mathematical models of the neutron field. This text then discusses the finite element method, which is a method for obtaining approximate solutions to integral or differential equations. Other chapters consider the status of the accuracy of nuclear data used for reactor calculations and the target accuracies required by reactor physics. This book discusses as well the role of integral experiments for the improvement of nuclear data and the different approaches taken to enhance them. The final chapter deals with the manufacture and application of coated particles. This book is a valuable resource for reactor physicists, engineers, scientists, and research workers.
Sport Science Research and Technology Support Jan Cabri 2019-03-18 This book constitutes the thoroughly refereed post-conference proceedings of the 4th and 5th International Congress on Sports Science Research and Technology Support, icSPORT 2016 and 2017, held respectively in Porto, Portugal, on November 7-9, 2016 and in Funchal, Madeira, Portugal, on October 30-31, 2017. The 13 revised full papers (7 papers in 2016 and 6 papers in 2017) along with 1 short paper presented were carefully reviewed and selected from 93 submissions (53 in 2016 and 40 in 2017). The papers cover the following topics: signal processing and motor behavior; neuromuscular physiology; sports medicine and support technology; physiotherapy and rehabilitation; health, sports performance and support technology; applied physiology and exercise; computer systems in sports; computer supported training and decision support systems.
Scientific Inquiry and Nature of Science Lawrence Flick 2007-10-23 This book synthesizes current literature and research on scientific inquiry and the nature of science in K-12 instruction. Its presentation of the distinctions and overlaps of inquiry and nature of science as instructional outcomes are unique in contemporary literature. Researchers and teachers will find the text interesting as it carefully explores the subtleties and challenges of designing curriculum and instruction for integrating inquiry and nature of science.
Land Use Competition Jörg Niewöhner 2016-07-29 This book contributes to broadening the interdisciplinary knowledge basis for the description, analysis and assessment of land use practices. It presents conceptual advances grounded in empirical case studies on four main themes: distal drivers, competing demands on different scales, changing food regimes and land-water competition. Competition over land ownership and use is one of the key contexts in which the effects of global change on social-ecological systems unfold. As such, understanding these rapidly changing dynamics is one of the most pressing challenges of global change research in the 21st century. This book contributes to a deeper understanding of the manifold interactions between land systems, the economics of resource production, distribution and use, as well as the logics of local livelihoods and cultural contexts. It addresses a broad readership in the geosciences, land and environmental sciences, offering them an essential reference guide to land use competition.
Water Conservation in the Era of Global Climate Change Binota Thokchom 2021-02-25 Water Conservation in the Era of Global Climate Change reviews key issues surrounding climate change and water resources. The book brings together experts from a variety of fields and perspectives, providing a comprehensive view on how climate change impacts water resources, how water pollution impacts climate change, and how to assess potential hazards and success stories on managing and addressing current issues in the field. Topics also include assessing policy impacts, innovative water reuse strategies, and information on impacts on fisheries and agriculture including food scarcity. This book is an excellent tool for researchers and professionals in Climate Change, Climate Services and Water Resources, and those trying to combat the impacts and issues related to Global and Planetary Change. Covers a wide range of theoretical and practical issues related to how climate change impacts water resources and adaptation, with extended influence on agriculture, food and water security, policymaking, etc. Reviews mathematical tools and simulations models on predicting potential hazards from climate change in such a way they can be useful to readers from a variety of levels of mathematical expertise Examines the potential impacts on agriculture and drinking water quality Includes case studies of successful management of water and pollutants that contribute to climate change
Graduate Programs in Business, Education, Information Studies, Law & Social Work 2015 (Grad 6) Peterson's 2014-12-30 Graduate Programs in Business, Education, Information Studies, Law & Social Work 2015 contains helpful facts and figures on more than 11,000 graduate programs. The comprehensive directory includes more than 1,850 institutions and their programs in all of the relevant disciplines such as accounting and finance, business management, education, law, library and information sciences, marketing, social work, and many more. Informative data profiles feature facts and figures on accreditation, degree requirements, application deadlines, contact information, financial support, faculty, and student body profiles. Two-page in-depth descriptions, written by featured institutions, offer complete details on specific graduate program, school, or department as well as information on faculty research. Comprehensive directories list programs in this volume, as well as others in the graduate series.
Cases on Immersive Virtual Reality Techniques Yang, Kenneth C.C. 2019-04-12 As virtual reality approaches mainstream consumer use, new research and innovations in the field have impacted how we view and can use this technology across a wide range of industries. Advancements in this technology have led to recent breakthroughs in sound, perception, and visual processing that take virtual reality to new dimensions. As such, research is needed to support the adoption of these new methods and applications. Cases on Immersive Virtual Reality Techniques is an essential reference source that discusses new applications of virtual reality and how they can be integrated with immersive techniques and computer resources. Featuring research on topics such as 3D modeling, cognitive load, and motion cueing, this book is ideally designed for educators, academicians, researchers, and students seeking coverage on the applications of collaborative virtual environments.
Muslim Piety as Economy Johan Fischer 2019-10-11 The first volume to explore Muslim piety as a form of economy, this book examines specific forms of production, trade, regulation, consumption, entrepreneurship and science that condition – and are themselves conditioned by – Islamic values, logics and politics. With a focus on Southeast Asia as a site of significant and diverse integration of Islam and the economy – as well as the incompatibilities that can occur between the two – it reveals the production of a Muslim piety as an economy in its own right. Interdisciplinary in nature and based on in-depth empirical studies, the book considers issues such as the Qur'anic prohibition of corruption and anti-corruption reforms; the emergence of the Islamic economy under colonialism; 'halal' or 'lawful' production, trade, regulation and consumption; modesty in Islamic fashion marketing communications; and financialisation, consumerism and housing. As such, it will appeal to scholars of sociology, anthropology and religious studies with interests in Islam and Southeast Asia.
Graduate Programs in Business, Education, Information Studies, Law & Social Work 2014 (Grad 6) Peterson's 2013-12-20 Peterson's Graduate Programs in Business, Education, Information Studies, Law & Social Work 2014 contains comprehensive profiles of more than 11,000 graduate programs in disciplines such as, accounting & finance, business administration & management, education, human resources, international business, law, library & information studies, marketing, social work, transportation management, and more. Up-to-date info, collected through Peterson's Annual Survey of Graduate and Professional Institutions, provides valuable data on degree offerings, professional accreditation, jointly offered degrees, part-time & evening/weekend programs, postbaccalaureate distance degrees, faculty, students, requirements, expenses, financial support, faculty research, and unit head and application contact information. There are helpful links to in-depth descriptions about a specific graduate program or department, faculty members and their research, and more. Also find valuable articles on financial assistance, the graduate admissions process, advice for international and minority students, and facts about accreditation, with a current list of accrediting agencies.
Introduction to Natural Language Processing Jacob Eisenstein 2019-10-01 A survey of computational methods for understanding, generating, and manipulating human language, which offers a synthesis of classical representations and algorithms with contemporary machine learning techniques. This textbook provides a technical perspective on natural language processing—methods for building computer software that understands, generates, and manipulates human language. It emphasizes contemporary data-driven approaches, focusing on techniques from supervised and unsupervised machine learning. The first section establishes a foundation in machine learning by building a set of tools that will be used throughout the book and applying them to word-based textual analysis. The second section introduces structured representations of language, including sequences, trees, and graphs. The third section explores different approaches to the representation and analysis of linguistic meaning, ranging from formal logic to neural word embeddings. The final section offers chapter-length treatments of three transformative applications of natural language processing: information extraction, machine translation, and text generation. End-of-chapter exercises include both paper-and-pencil analysis and software implementation. The text synthesizes and distills a broad and diverse research literature, linking contemporary machine learning techniques with the field's linguistic and computational foundations. It is suitable for use in advanced undergraduate and graduate-level courses and as a reference for software engineers and data scientists. Readers should have a background in computer programming and college-level mathematics. After mastering the material presented, students will have the technical skill to build and analyze novel natural language processing systems and to understand the latest research in the field.
Scientific Papers of the Institute of Physical and Chemical Research Rikagaku Kenkyūjo (Japan) 1971
Nanoelectronic Device Applications Handbook James E. Morris 2017-11-22 Nanoelectronic Device Applications Handbook gives a comprehensive snapshot of the state of the art in nanodevices for nanoelectronics applications. Combining breadth and depth, the book includes 68 chapters on topics that range from nano-scaled complementary metal–oxide–semiconductor (CMOS) devices through recent developments in nano capacitors and AlGaAs/GaAs devices. The contributors are world-renowned experts from academia and industry from around the globe. The handbook explores current research into potentially disruptive technologies for a post-CMOS world. These include: Nanoscale advances in current MOSFET/CMOS technology Nano capacitors for applications such as electronics packaging and humidity sensors Single electron transistors and other electron tunneling devices Quantum cellular automata and nanomagnetic logic Memristors as switching devices and for memory Graphene preparation, properties, and devices Carbon nanotubes (CNTs), both single CNT and random network Other CNT applications such as terahertz, sensors, interconnects, and capacitors Nano system architectures for reliability Nanowire device fabrication and applications Nanowire transistors Nanodevices for spintronics The book closes with a call for a new generation of simulation tools to handle nanoscale mechanisms in realistic nanodevice geometries. This timely handbook offers a wealth of insights into the application of nanoelectronics. It is an invaluable reference and source of ideas for anyone working in the rapidly expanding field of nanoelectronics.
Advanced Classical Electrodynamics Ulrich D Jentschura 2017-05-09 This textbook introduces advanced classical electrodynamics using modern mathematical techniques, with an emphasis on physical concepts. Connections to field theory and general relativity are highlighted while the book still serves as the basis for a one- or two-semester course on electrodynamics within the graduate curriculum. Request Inspection Copy
Electronics, Communications and Networks IV Amir Hussain 2015-07-01 The 4th International Conference on Electronic, Communications and Networks (CECNet2014) inherits the fruitfulness of the past three conferences and lays a foundation for the forthcoming next year in Shanghai. CECNet2014 was hosted by Hubei University of Science and Technology, China, with the main objective of providing a comprehensive global foru
Nonlinear Dispersive Waves and Fluids Avy Soffer 2019-03-12 This volume contains the proceedings of the AMS Special Session on Spectral Calculus and Quasilinear Partial Differential Equations and the AMS Special Session on PDE Analysis on Fluid Flows, which were held in January 2017 in Atlanta, Georgia. These two sessions shared the underlying theme of the analysis aspect of evolutionary PDEs and mathematical physics. The articles address the latest trends and perspectives in the area of nonlinear dispersive equations and fluid flows. The topics mainly focus on using state-of-the-art methods and techniques to investigate problems of depth and richness arising in quantum mechanics, general relativity, and fluid dynamics.
Iron Will Markus Kröger 2020-11-23 Iron Will lays bare the role of extractivist policies and efforts to resist these policies through a deep ethnographic exploration of globally important iron ore mining in Brazil and India. Markus Kröger addresses resistance strategies to extractivism and tracks their success, or lack thereof, through a comparison of peaceful and armed resource conflicts, explaining how different means of resistance arise. Using the distinctly different contexts and political systems of Brazil and India highlights the importance of local context for resistance. For example, if there is an armed conflict at a planned mining site, how does this influence the possibility to use peaceful resistance strategies? To answer such questions, Kröger assesses the inter-relations of contentious, electoral, institutional, judicial, and private politics that surround conflicts and interactions, offering a new theoretical framework of "investment politics" that can be applied generally by scholars and students of social movements, environmental studies, and political economy, and even more broadly in Social Scientific and Environmental Policy research. By drawing on a detailed field research and other sources, this book explains precisely which resistance strategies are able to influence both political and economic outcomes. Kröger expands the focus of traditionally Latin American extractivism research to other contexts such as India and the growing extractivist movement in the Global North. In addition, as the book is a multi-sited political ethnography, it will appeal to sociologists, political scientists, anthropologists, geographers, and others using field research among other methods to understand globalization and global political interactions. It is the most comprehensive book on the political economy and ecology of iron ore and steel. This is astonishing, given the fact that iron ore is the second-most important commodity in the world after oil.
Nanoscale Networking and Communications Handbook John R. Vacca 2019-07-15 This comprehensive handbook serves as a professional reference as well as a practitioner's guide to today's most complete and concise view of nanoscale networking and communications. It offers in-depth coverage of theory, technology, and practice as they relate to established technologies and recent advancements. It explores practical solutions to a wide range of nanoscale networking and communications issues. Individual chapters, authored by leading experts in the field, address the immediate and long-term challenges in the authors' respective areas of expertise.
Graph-Theoretic Concepts in Computer Science Dieter Kratsch 2014-10-20 This book constitutes the thoroughly refereed post-conference proceedings of the 40th International Workshop on Graph-Theoretic Concepts in Computer Science, WG 2014, held in Nouan-le-Fuzelier, France, in June 2014. The 32 revised full papers presented were carefully reviewed and selected from 80 submissions. The

book also includes two invited papers. The papers cover a wide range of topics in graph theory related to computer science, such as design and analysis of sequential, parallel, randomized, parameterized and distributed graph and network algorithms; structural graph theory with algorithmic or complexity applications; computational complexity of graph and network problems; graph grammars, graph rewriting systems and graph modeling; graph drawing and layouts; computational geometry; random graphs and models of the web and scale-free networks; and support of these concepts by suitable implementations and applications.

Einstein's Fridge Paul Sen 2022-03-22 This entertaining, eye-opening account of how the laws of thermodynamics are essential to understanding the world today—from refrigeration and jet engines to calorie counting and global warming—is “a lesson in how to do popular science right” (Kirkus Reviews). Einstein’s Fridge tells the incredible epic story of the scientists who, over two centuries, harnessed the power of heat and ice and formulated a theory essential to comprehending our universe. “Although thermodynamics has been studied for hundreds of years…few nonscientists appreciate how its principles have shaped the modern world” (Scientific American). Thermodynamics—the branch of physics that deals with energy and entropy—governs everything from the behavior of living cells to the black hole at the center of our galaxy. Not only that, but thermodynamics explains why we must eat and breathe, how lights turn on, the limits of computing, and how the universe will end. The brilliant people who decoded its laws came from every branch of the sciences; they were engineers, physicists, chemists, biologists, cosmologists, and mathematicians. From French military engineer and physicist Sadi Carnot to Lord Kelvin, James Joule, Albert Einstein, Emmy Noether, Alan Turing, and Stephen Hawking, author Paul Sen introduces us to all of the players who passed the baton of scientific progress through time and across nations. Incredibly driven and idealistic, these brave pioneers performed groundbreaking work often in the face of torment and tragedy. Their discoveries helped create the modern world and transformed every branch of science, from biology to cosmology. “Elegantly written and engaging” (Financial Times), Einstein’s Fridge brings to life one of the most important scientific revolutions of all time and captures the thrill of discovery and the power of scientific progress to shape the course of history.

Titanium Alloys A.K.M. Nurul Amin 2012 The first section of the book includes the following topics: fusion-based additive manufacturing (AM) processes of titanium alloys and their numerical modelling, mechanism of ?-case formation mechanism during investment casting of titanium, genesis of gas-containing defects in cast titanium products. Second section includes topics on behavior of the (? + ?) titanium alloys under extreme pressure and temperature conditions, hot and super plasticity of titanium (? + ?) alloys and some machinability aspects of titanium alloys in drilling. Finally, the third section includes topics on different surface treatment methods including nanotube-anodic layer formation on two phase titanium alloys in phosphoric acid for biomedical applications, chemico-thermal treatment of titanium alloys applying nitriding process for improving corrosion resistance of titanium alloys.

PLATE: Product Lifetimes And The Environment C.A. Bakker 2017-11-14 Product lifetimes are critical for the circular economy, resource efficiency, waste reduction and low carbon strategies for sustainability, and are therefore of interest to academics from many different disciplines as well as original equipment manufacturers (OEMs) and other stakeholders. The challenges related to product lifetimes must be tackled from multiple perspectives, making the sharing of knowledge and expertise from different disciplines particularly important. This book presents papers from the second Product Lifetime and the Environment (PLATE) conference, held in Delft, the Netherlands, in November 2017. The conference originated from the desire to bring together academic researchers working in the field of sustainability to benefit from each other’s knowledge and further advance the field. The book includes the 88 full papers delivered at the conference, grouped according to the following 7 conference themes: design for product longevity; product lifetime optimization; cultural perspectives on the throwaway society; circular economy and product lifetimes; business opportunities, economic implications and marketing strategies; consumer influences on product lifetimes; and policy, regulation and legislation. The book will be of interest to all those concerned with sustainable consumption, circular economy and resource efficiency.

Communities in Action National Academies of Sciences, Engineering, and Medicine 2017-04-27 In the United States, some populations suffer from far greater disparities in health than others. Those disparities are caused not only by fundamental differences in health status across segments of the population, but also because of inequities in factors that impact health status, so-called determinants of health. Only part of an individual's health status depends on his or her behavior and choice; community-wide problems like poverty, unemployment, poor education, inadequate housing, poor public transportation, interpersonal violence, and decaying neighborhoods also contribute to health inequities, as well as the historic and ongoing interplay of structures, policies, and norms that shape lives. When these factors are not optimal in a community, it does not mean they are intractable: such inequities can be mitigated by social policies that can shape health in powerful ways. Communities in Action: Pathways to Health Equity seeks to delineate the causes of and the solutions to health inequities in the United States. This report focuses on what communities can do to promote health equity, what actions are needed by the many and varied stakeholders that are part of communities or support them, as well as the root causes and structural barriers that need to be overcome.