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*Carleman Estimates, Observability Inequalities and Null Controllability for Interior Degenerate Nonsmooth Parabolic Equations* - Genni Fragnelli 2016-06-21

The authors consider a parabolic problem with degeneracy in the interior of the spatial domain, and they focus on observability results through Carleman estimates for the associated adjoint problem. The novelties of the present paper are two. First, the coefficient of the leading operator only belongs to a Sobolev space. Second, the degeneracy point is allowed to lie even in the interior of the control region, so that no previous result can be adapted to this situation; however, different cases can be handled, and new controllability results are established as a consequence.

[Bulk Collection of Signals Intelligence](#) - National Research Council 2015-03-24

The Bulk Collection of Signals Intelligence: Technical Options study is a result of an activity called for in Presidential Policy Directive 28 (PPD-28), issued by President Obama in January 2014, to evaluate U.S. signals intelligence practices. The directive instructed the Office of the Director of National Intelligence (ODNI) to produce a report within one year "assessing the feasibility of creating software that would allow the intelligence community more easily to conduct targeted information acquisition rather than bulk collection." ODNI asked the National Research Council (NRC) -- the operating arm of the National Academy of Sciences and National Academy of Engineering -- to conduct a study, which began in June 2014, to assist in preparing a response to the President. Over the ensuing months, a committee of experts appointed by the Research Council produced the report.

**Handbook of Cannabis** - Roger Pertwee 2014-08-21

Truly global in scope and with contributions from leading researchers around the world, The Handbook of Cannabis is the definitive resource on this fascinating drug. Combining scientific perspectives and clinical applications, it covers a vast array of topics, from why over the centuries cannabis has been used as a medicine, through the regulations facing those wishing to self-administer cannabis or provide cannabis-based medicines, to the chemical structure of its many constituents and the rapidly growing group of synthetic cannabinoids that are currently being used for 'legal highs'. With each chapter written by a group of one or more internationally recognised subject experts, it provides academics and researchers with authoritative scientific material on the main pharmacological actions and their effects, as well as their pharmacokinetics, metabolism, and forensic detection. In addition it also examines the complex morphology, cultivation, harvesting, and processing of cannabis and the ways in which the plant's chemical composition can be controlled. As well as offering a raft of scientific information there is extensive coverage of cannabinoid-based medicines. Helping readers to identify and evaluate their benefits, chapters explore pharmacological actions and the effects that seem to underlie approved therapeutic uses, how they are currently used to treat certain disorders, and the ever-growing number of wide-ranging potential clinical applications. There is also coverage of both the legal and illegal sources of cannabis, including 'coffee shops' and 'cannabis dispensaries'. The complex issue of 'recreational cannabis' is also tackled. The sought-after and adverse psychological and non-psychological effects are described and discussions are included on how some adverse effects can be lessened by at least one constituent of cannabis, and that it might be possible to reduce the harm that cannabis does to some by changing current regulatory policies. The Handbook of Cannabis is a one-stop reference; essential reading for all clinicians, pharmacologists, psychologists, and psychiatrists interested in this drug, as well as those working in the field of public

health.

**The Coding Manual for Qualitative Researchers** - Johnny Saldaña 2012-10-04

The Second Edition of Johnny Saldaña's international bestseller provides an in-depth guide to the multiple approaches available for coding qualitative data. Fully up to date, it includes new chapters, more coding techniques and an additional glossary. Clear, practical and authoritative, the book: -describes how coding initiates qualitative data analysis -demonstrates the writing of analytic memos -discusses available analytic software -suggests how best to use The Coding Manual for Qualitative Researchers for particular studies. In total, 32 coding methods are profiled that can be applied to a range of research genres from grounded theory to phenomenology to narrative inquiry. For each approach, Saldaña discusses the method's origins, a description of the method, practical applications, and a clearly illustrated example with analytic follow-up. A unique and invaluable reference for students, teachers, and practitioners of qualitative inquiry, this book is essential reading across the social sciences.

**The Science of Armour Materials** - Ian Crouch 2016-09-21

The Science of Armour Materials comprehensively covers the range of armor materials from steels and light alloys, through glasses and ceramics, to fibers, textiles, and protective apparel. The book also discusses aspects of analytical and numerical modeling, as well as laboratory-based high-strain rate testing and ballistic testing methodologies. Each chapter is written from an international perspective, including reviews of the current global literature, and incorporates case studies that focus upon real life applications, research outcomes, and lessons learned. The threat spectrum is restricted to small arms ammunition, high velocity fragments, and stab and spike attacks, as well as blast loadings. Features input from an editor who is an expert in his field: Dr. Ian Crouch, the author of over 80 publications in his field, with three patents to his name Provides systematic and comprehensive coverage of armor materials, modeling, and testing Offers a cross-disciplinary approach that brings together expertise in materials science and defense engineering Discusses aspects of analytical and numerical modeling, as well as laboratory-based high-strain rate testing and ballistic testing methodologies

**EBOOK: Sports in Society** - Jay Coakley 2014-04-16

Using a topics-based approach organized around provocative questions about the interaction of sports, culture and society, Sports in Society presents an accessible introduction to research and theory in the sociology of sport. This new edition continues the legacy of the previous editions while introducing new material and examples that bring theory to life. Current debates in sports, such as how youth participation can be increased or sport funding allocated, have been integrated throughout the text to provide a holistic view of society. An Online Learning Centre accompanies this book offering a range of lecturer support materials as well as resources and tests for students.

[Biofeedback and Sports Science](#) - J.H. Sandweiss 2013-06-29

There is a new breed of athletic coach in the educational arena. While on speaking engagements around the world, I've encouraged coaches to jump "head first" and quickly into sports science. The reason is simple. With new electronic communication systems coming on the market almost daily, athletes can get valid and reliable information to help them maximize sports skills, and this information can come faster than most coaches are able to deliver. Coaches have historically rejected most sports science efforts in favor of traditional "seat of the pants" systems, but now there is a new kind of athlete who is asking questions never

before presented to the coach. Professional athletes are individually seeking out sports scientists for answers to their particular problems. Stories appear daily in the media about athletes making quantum jumps in performance as a result of their association with sports scientists. The tidal wave is building and no one can stop it-not even the sporting goods industry. "High-tech" athletic equipment is now a must in nearly every sport. Large sporting goods companies have nearly gone bankrupt because of competitors' new "high-tech" products. ix X FoREWORD The tail is wagging the dog. Professional, amateur, and weekend athletes alike are demanding technical answers of our sports leaders, and they are going elsewhere if the correct answers aren't available. The number of Olympic athletes visiting our Coto Research Center in California is staggering.

*Thorium Energy for the World* - Jean-Pierre Revol 2016-04-05

The Thorium Energy Conference (ThEC13) gathered some of the world's leading experts on thorium technologies to review the possibility of destroying nuclear waste in the short term, and replacing the uranium fuel cycle in nuclear systems with the thorium fuel cycle in the long term. The latter would provide abundant, reliable and safe energy with no CO2 production, no air pollution, and minimal waste production. The participants, representatives of 30 countries, included Carlo Rubbia, Nobel Prize Laureate in physics and inventor of the Energy Amplifier; Jack Steinberger, Nobel Prize Laureate in physics; Hans Blix, former Director General of the International Atomic Energy Agency (IAEA); Rolf Heuer, Director General of CERN; Pascal Couchepin, former President of the Swiss Confederation; and Claude Haegi, President of the FEDRE, to name just a few. The ThEC13 proceedings are a source of reference on the use of thorium for energy generation. They offer detailed technical reviews of the status of thorium energy technologies, from basic R&D to industrial developments. They also describe how thorium can be used in critical reactors and in subcritical accelerator-driven systems (ADS), answering the important questions: - Why is thorium so attractive and what is the role of innovation, in particular in the nuclear energy domain? - What are the national and international R&D programs on thorium technologies and how are they progressing? ThEC13 was organized jointly by the international Thorium Energy Committee (iThEC), an association based in Geneva, and the International Thorium Energy Organisation (IThEO). It was held in the Globe of Science and Innovation at the European Organization for Nuclear Research (CERN), Geneva, Switzerland, in October 2013.

**Applied Mechanics Reviews** - 1975

*Strengthening Data Science Methods for Department of Defense Personnel and Readiness Missions* - National Academies of Sciences, Engineering, and Medicine 2017-02-06

The Office of the Under Secretary of Defense (Personnel & Readiness), referred to throughout this report as P&R, is responsible for the total force management of all Department of Defense (DoD) components including the recruitment, readiness, and retention of personnel. Its work and policies are supported by a number of organizations both within DoD, including the Defense Manpower Data Center (DMDC), and externally, including the federally funded research and development centers (FFRDCs) that work for DoD. P&R must be able to answer questions for the Secretary of Defense such as how to recruit people with an aptitude for and interest in various specialties and along particular career tracks and how to assess on an ongoing basis service members' career satisfaction and their ability to meet new challenges. P&R must also address larger-scale questions, such as how the current realignment of forces to the Asia-Pacific area and other regions will affect recruitment, readiness, and retention. While DoD makes use of large-scale data and mathematical analysis in intelligence, surveillance, reconnaissance, and elsewhere—exploiting techniques such as complex network analysis, machine learning, streaming social media analysis, and anomaly detection—these skills and capabilities have not been applied as well to the personnel and readiness enterprise. Strengthening Data Science Methods for Department of Defense Personnel and Readiness Missions offers and roadmap and implementation plan for the integration of data analysis in support of decisions within the purview of P&R.

**Readings in Qualitative Reasoning About Physical Systems** - Daniel S. Weld 2013-09-17

Readings in Qualitative Reasoning about Physical Systems describes the automated reasoning about the physical world using qualitative representations. This text is divided into nine chapters, each focusing on

some aspect of qualitative physics. The first chapter deal with qualitative physics, which is concerned with representing and reasoning about the physical world. The goal of qualitative physics is to capture both the commonsense knowledge of the person on the street and the tacit knowledge underlying the quantitative knowledge used by engineers and scientists. The succeeding chapter discusses the qualitative calculus and its role in constructing an envisionment that includes behavior over both mythical time and elapsed time. These topics are followed by reviews of the mathematical aspects of qualitative reasoning, history-based simulation and temporal reasoning, as well as the intelligence in scientific computing. The final chapters are devoted to automated modeling for qualitative reasoning and causal explanations of behavior. These chapters also examine the qualitative kinematics of reasoning about shape and space. This book will prove useful to psychologists and psychiatrists.

**Environmental Risk Assessment** - Ted Simon 2014-02-05

The purpose of risk assessment is to support science-based decisions about how to solve complex societal problems. The problems we face in the twenty-first century have many social, political, and technical complexities. Environmental risk assessment in particular is of increasing importance as a means of seeking to address the potential effects of

Electronic Properties of Materials - H. Thyne Johnson 2013-11-27

HIS FIRST EDITION OF Electronic Properties of Force Materials Laboratory, where Air Force respon T Materials: A Guide to the Literature initiates a sibility for these contracts has resided. Mr. John W. plan for making available the indexing work of the Atwood is Project Manager at Hughes Aircraft Electronic Properties Information Center. Since the Company. inception of EPIC in June, 1961, a basic objective has Professional members of EPIC are Charles L. M. been to use techniques and procedures that would Blocher, Donald L. Grigsby, Dana H. Johnson, allow maximum distribution and use of EPIC output. Thomas J. Lyndon, John T. Milek, Meta S. Neu Accordingly, data processing and reproduction tech berger, and Emil Schafer. All have ably contributed niques were established to reproduce and distribute to this work. Mr. Johnson and Mrs. Neuberger have easily and economically a few copies of what was been primarily responsible for the indexing effort; then a card index. Mr. Lyndon has supervised the classical library pro As the program advanced, it became apparent that cedures and the clerical effort; Mr. Blocher and Mr. a few copies of the index were not enough. The index Grigsby have controlled the indexing vocabulary, the should be available to all, instead of just a select few. cross-references, and the data processing input; and However, this would have meant so many copies that Mr. Schafer has prepared the very excellent glossary, the cost would have drained funds from the program with the assistance of Mr. Milek.

**Tunnel Visions** - Michael Riordan 2015-11-20

Starting in the 1950s, US physicists dominated the search for elementary particles; aided by the association of this research with national security, they held this position for decades. In an effort to maintain their hegemony and track down the elusive Higgs boson, they convinced President Reagan and Congress to support construction of the multibillion-dollar Superconducting Super Collider project in Texas—the largest basic-science project ever attempted. But after the Cold War ended and the estimated SSC cost surpassed ten billion dollars, Congress terminated the project in October 1993. Drawing on extensive archival research, contemporaneous press accounts, and over one hundred interviews with scientists, engineers, government officials, and others involved, Tunnel Visions tells the riveting story of the aborted SSC project. The authors examine the complex, interrelated causes for its demise, including problems of large-project management, continuing cost overruns, and lack of foreign contributions. In doing so, they ask whether Big Science has become too large and expensive, including whether academic scientists and their government overseers can effectively manage such an enormous undertaking.

*Technological Innovation in Legacy Sectors* - William B. Bonvillian 2015-08-18

The American economy faces two deep problems: expanding innovation and raising the rate of quality job creation. Both have roots in a neglected problem: the resistance of Legacy economic sectors to innovation. While the U.S. has focused its policies on breakthrough innovations to create new economic frontiers like information technology and biotechnology, most of its economy is locked into Legacy sectors defended by technological/ economic/ political/ social paradigms that block competition from disruptive innovations that could challenge their models. Americans like to build technology "covered wagons" and take them "out

west" to open new innovation frontiers; we don't head our wagons "back east" to bring innovation to our Legacy sectors. By failing to do so, the economy misses a major opportunity for innovation, which is the bedrock of U.S. competitiveness and its standard of living. Technological Innovation in Legacy Sectors uses a new, unifying conceptual framework to identify the shared features underlying structural obstacles to innovation in major Legacy sectors: energy, air and auto transport, the electric power grid, buildings, manufacturing, agriculture, health care delivery and higher education, and develops approaches to understand and transform them. It finds both strengths and obstacles to innovation in the national innovation environments - a new concept that combines the innovation system and the broader innovation context - for a group of Asian and European economies. Manufacturing is a major Legacy sector that presents a particular challenge because it is a critical stage in the innovation process. By increasingly offshoring production, the U.S. is losing important parts of its innovation capacity. "Innovate here, produce here," where the U.S. took all the gains of its strong innovation system at every stage, is being replaced by "innovate here, produce there," which threatens to lead to "produce there, innovate there." To bring innovation to Legacy sectors, authors William Bonvillian and Charles Weiss recommend that policymakers focus on all stages of innovation from research through implementation. They should fill institutional gaps in the innovation system and take measures to address structural obstacles to needed disruptive innovations. In the specific case of advanced manufacturing, the production ecosystem can be recreated to reverse "jobless innovation" and add manufacturing-led innovation to the U.S.'s still-strong, research-oriented innovation system.

Assembling Bus Rapid Transit in the Global South - Malve Jacobsen 2020-12-14

This book explores the mobile ethnography of Dar es Salaam, where consultants and politicians have planned and implemented a bus rapid transit (BRT) system for two decades. It analyses the dual processes of assembling BRT in the Tanzanian metropolis and establishing BRT as a policy model of and for the Global South. The book elucidates how policy models are constructed and circulated around the globe and depicts the processes by which they are translated between, and materialise within, specific contexts. It presents the case of BRT to demonstrate how technocrats shape these processes through persuasive work aimed at disseminating and stabilising this transport model, and how local actors influence its adaptation in Dar es Salaam. The book adopts a 'double mobility' approach to show how this ethnography follows travelling consultants, circulating policies and moving buses to explore the fluidity of the BRT model. Linking key debates in policy mobility studies and Science and Technology Studies, enriched with postcolonial perspectives and geographies of transport and infrastructure, it offers new insights into the technopolitics of planning and implementing infrastructure systems. This book will appeal to academics and students of human geography, transport studies, science and technology studies, and African and development studies interested in the technopolitics of transport planning.

The Tongue and Quill - Air Force 2019-10-11

The Tongue and Quill has been a valued Air Force resource for decades and many Airmen from our Total Force of uniformed and civilian members have contributed their talents to various editions over the years. This revision is built upon the foundation of governing directives and user's inputs from the unit level all the way up to Headquarters Air Force. A small team of Total Force Airmen from the Air University, the United States Air Force Academy, Headquarters Air Education and Training Command (AETC), the Air Force Reserve Command (AFRC), Air National Guard (ANG), and Headquarters Air Force compiled inputs from the field and rebuilt The Tongue and Quill to meet the needs of today's Airmen. The team put many hours into this effort over a span of almost two years to improve the content, relevance, and organization of the material throughout this handbook. As the final files go to press it is the desire of The Tongue and Quill team to say thank you to every Airman who assisted in making this edition better; you have our sincere appreciation!

Curvature: A Variational Approach - A. Agrachev 2019-01-08

The curvature discussed in this paper is a far reaching generalization of the Riemannian sectional curvature. The authors give a unified definition of curvature which applies to a wide class of geometric structures whose geodesics arise from optimal control problems, including Riemannian, sub-Riemannian, Finsler and sub-Finsler spaces. Special attention is paid to the sub-Riemannian (or Carnot-Carathéodory)

metric spaces. The authors' construction of curvature is direct and naive, and similar to the original approach of Riemann. In particular, they extract geometric invariants from the asymptotics of the cost of optimal control problems. Surprisingly, it works in a very general setting and, in particular, for all sub-Riemannian spaces.

CEPAL Review No.116, August 2015 - United Nations Economic Commission for Latin America and the Caribbean 2016-03-28

Cepal Review is the leading journal for the study of economic and social development issues in Latin America and the Caribbean. Edited by the Economic Commission for Latin America, each issue focuses on economic trends, industrialization, income distribution, technological development and monetary systems, as well as the implementation of reforms and transfer of technology. Written in English and Spanish (Revista De La Cepal), each tri-annual issue brings you approximately 12 studies and essays undertaken by authoritative experts or gathered from conference proceedings.

**Crime, Violence, and Global Warming** - John P. Crank 2015-05-20

Crime, Violence, and Global Warming introduces the many connections between climate change and criminal activity. Conflict over natural resources can escalate to state and non-state actors, resulting in wars, asymmetrical warfare, and terrorism. Crank and Jacoby apply criminological theory to each aspect of this complicated web, helping readers to evaluate conflicting claims about global warming and to analyze evidence of the current and potential impact of climate change on conflict and crime. Beginning with an overview of the science of global warming, the authors move on to the links between climate change, scarce resources, and crime. Their approach takes in the full scope of causes and consequences, present and future, in the United States and throughout the world. The book concludes by looking ahead at the problem of forecasting future security implications if global warming continues or accelerates. This fresh approach to the criminology of climate change challenges readers to examine all sides of this controversial question and to formulate their own analysis of our planet's future.

Understanding the Oceans - Dr Margaret Deacon 2013-10-16

Understanding the Oceans brings together an internationally distinguished group of authors to explore the enormous advances in marine science made since the voyage of HMS Challenger a century ago. The book draws inspiration from the seminal contributions stemming from that voyage, and individual chapters show how succeeding generations of scientists have been influenced by its findings. Covering the whole spectrum of the marine sciences, the book has been written and edited very much with the non-specialist reader in mind. Marine scientists, whether students or researchers, will welcome this authoritative comprehensive overview of their subject and its history; other scientists will find the book to be an accessible and informative introduction to marine science and its historical roots.

*Cold Regions Science and Engineering Monograph* - 1969

**Strengthening Forensic Science in the United States** - National Research Council 2009-07-29

Scores of talented and dedicated people serve the forensic science community, performing vitally important work. However, they are often constrained by lack of adequate resources, sound policies, and national support. It is clear that change and advancements, both systematic and scientific, are needed in a number of forensic science disciplines to ensure the reliability of work, establish enforceable standards, and promote best practices with consistent application. Strengthening Forensic Science in the United States: A Path Forward provides a detailed plan for addressing these needs and suggests the creation of a new government entity, the National Institute of Forensic Science, to establish and enforce standards within the forensic science community. The benefits of improving and regulating the forensic science disciplines are clear: assisting law enforcement officials, enhancing homeland security, and reducing the risk of wrongful conviction and exoneration. Strengthening Forensic Science in the United States gives a full account of what is needed to advance the forensic science disciplines, including upgrading of systems and organizational structures, better training, widespread adoption of uniform and enforceable best practices, and mandatory certification and accreditation programs. While this book provides an essential call-to-action for congress and policy makers, it also serves as a vital tool for law enforcement agencies, criminal prosecutors and attorneys, and forensic science educators.

**Yearbook of International Organizations 2013-2014** - Union of International Associations 2013-06-21  
Volume 1 (A and B) of the Yearbook of International Organizations covers international organizations throughout the world, comprising their aims, activities and events

*New Critical Spaces in Transitional Justice* - Arnaud Kurze 2019-01-10

Since the 1980s, transitional justice mechanisms have been increasingly applied to account for mass atrocities and grave human rights violations throughout the world. Over time, post-conflict justice practices have expanded across continents and state borders and have fueled the creation of new ideas that go beyond traditional notions of amnesty, retribution, and reconciliation. Gathering work from contributors in international law, political science, sociology, and history, *New Critical Spaces in Transitional Justice* addresses issues of space and time in transitional justice studies. It explains new trends in responses to post-conflict and post-authoritarian nations and offers original empirical research to help define the field for the future.

*Coercive Care* - Bernadette Mcsherry 2013-06-26

There has been much debate about mental health law reform and mental capacity legislation in recent years with the UN Convention on the Rights of Persons with Disabilities also having a major impact on thinking about the issue. This edited volume explores the concept of 'coercive care' in relation to individuals such as those with severe mental illnesses, those with intellectual and cognitive disabilities and those with substance use problems. With a focus on choice and capacity the book explores the impact of and challenges posed by the provision of care in an involuntary environment. The contributors to the book look at mental health, capacity and vulnerable adult's care as well as the law related to those areas. The book is split into four parts which cover: human rights and coercive care; legal capacity and coercive care; the legal coordination of coercive care and coercive care and individuals with cognitive impairments. The book covers new ground by exploring issues arising from the coercion of persons with various disabilities and vulnerabilities, helping to illustrate how the capacity to provide consent to treatment and care is impaired by reason of their condition.

**The Routledge Handbook of European Integrations** - Thomas Hoerber 2022-02-28

The Routledge Handbook of European Integrations fills a significant gap in the European studies literature by providing crucial and groundbreaking coverage of several key areas that are usually neglected or excluded in European integration collections. Whilst still examining the largest and most influential institutions, bodies and highly-funded policy areas as acknowledged dominant topics in European studies, it crucially does so with much greater balance by devoting equal billing to areas such as culture in European integration or new technologies and their impact on the EU. Organised around three main sections - culture, technology and 'tangibles' - the book: offers an authoritative 'encyclopaedia' to 'alternative' areas in European integration, from media, football, Erasmus and tourism, to transport, space, AI and energy; retains coverage of the dominant topics in European studies, such as the Eurozone, the Common Internal Market, or European law, but in balance with other areas of interest; and provides an essential companion to existing scholarship in European studies. The Routledge Handbook of European Integrations is essential reading and an authoritative reference for scholars, students, researchers and practitioners involved in, and actively concerned about, research in the study of European integration/studies.

**Oceanographical Engineering** - Robert L. Wiegel 2013-09-03

As is the case with many modern fields of study, oceanographical engineering cuts across the boundaries of several disciplines. Like other scientific endeavors, it aims to understand the nature of the ocean and to make use of this understanding for the benefit of humanity through better ports, safer and more economical operations at sea, and greater use of the oceans' natural resources--food, raw materials, and recreation. This graduate-level text requires a knowledge of fluid mechanics; a background in the motions of sediments in fluids is advisable, as is a concurrent course in structural dynamics. Topics include the theory of periodic waves; tsunamis, storm surges, and harbor oscillations; the effect of structures on waves; waves in shoaling water; tides and sea level changes; currents; shores and shore processes; some characteristics of the oceans' waters; moorings; and other related subjects. Certain portions of the book pertaining to the distribution of temperatures and salinities in the ocean are largely descriptive; other portions, such as the sections on waves, are mathematical. Numerous drawings and photographs supplement the text.

*Systems of Transversal Sections Near Critical Energy Levels of Hamiltonian Systems in  $R$*  - Naiara V. de Paulo 2018-03-19

In this article the authors study Hamiltonian flows associated to smooth functions  $R$  restricted to energy levels close to critical levels. They assume the existence of a saddle-center equilibrium point in the zero energy level. The Hamiltonian function near is assumed to satisfy Moser's normal form and is assumed to lie in a strictly convex singular subset of. Then for all small, the energy level contains a subset near, diffeomorphic to the closed  $-ball$ , which admits a system of transversal sections, called a foliation. is a singular foliation of and contains two periodic orbits and as binding orbits. is the Lyapunoff orbit lying in the center manifold of, has Conley-Zehnder index and spans two rigid planes in. has Conley-Zehnder index and spans a one parameter family of planes in. A rigid cylinder connecting to completes. All regular leaves are transverse to the Hamiltonian vector field. The existence of a homoclinic orbit to in follows from this foliation.

*Decision Making and Knowledge Decision Support Systems* - Anna Maria Gil-Lafuente 2014-12-01

This book presents recent advancements of research, new methods and techniques, applications and projects in decision making and decision support systems. It explores expert systems and neural networks, knowledge engineering and management, fuzzy sets and systems and computational methods for optimization, data analysis and decision making. It presents applications in Economics, Finance, Management and Engineering. The book undertakes to stimulate scientific exchange, ideas and experiences in the field of decision making in Economy and Management. Researchers and practitioners alike will benefit from this book, when they are dealing with imprecision, vagueness and uncertainty in the context of decision making.

**The Seven Sins of Wall Street** - Bob Ivry 2014-03-11

We all know that the financial crisis of 2008 came dangerously close to pushing the United States and the world into a depression rivaling that of the 1930s. But what is astonishing -- and should make us not just afraid but very afraid -- are the shenanigans of the biggest banks since the crisis. Bob Ivry passionately, eloquently, and convincingly details the operatic ineptitude of America's best-compensated executives and the ways the government kowtows to what it mistakenly imagines is their competence and success. Ivry shows that the only thing that has changed since the meltdown is how too-big-to-fail banks and their fellow travelers in Washington have nudged us ever closer to an even bigger economic calamity. Informed by deep reporting from New York, Washington, and the heartland, *The Seven Sins of Wall Street*, like no other book, shows how we're all affected by the financial industry's inhumanity. The transgressions of "Wall Street titans" and "masters of the universe" are paid for by real people. In fierce, plain English, Ivry indicts a financial industry that continues to work for the few at the expense of the rest of us. Problems that financiers deemed too complicated to be understood by ordinary folks are shown by Ivry to be financial legerdemain -- a smokescreen of complexity and jargon that hide the bankers' nefarious activities. *The Seven Sins of Wall Street* is irreverent and timely, an infuriating black comedy. The Great Depression of the 1930s moved the American political system to real reform that kept the finance industry in check. With millions so deeply affected since the crisis of 2008, you'll finish this book asking yourself how it is that so many of the nation's leading financial institutions remain such exasperating problem children.

*Native Games* - Chris Hallinan 2013-07-19

Research on Indigenous participation in sport offers many opportunities to better understand the political issues of equality, empowerment, self-determination and protection of culture and identity. This volume compares and conceptualises the sociological significance of Indigenous sports in different international contexts.

**The Science, Technology and Application of Titanium** - R. I. Jaffee 2013-09-24

The Science, Technology and Application of Titanium contains the proceedings of an International Conference organized by the Institute of Metals, The Metallurgical Society of AIME, and the American Society for Metals in association with the Japan Institute of Metals and the Academy of Sciences of the USSR and held at the Royal Festival Hall in London, on May 21-24, 1968. The papers explore scientific and technological developments as well as applications of titanium and cover topics ranging from processing of titanium to its chemical and environmental behavior, physics, thermodynamics, and kinetics. Deformation

and fracture, phase transformations and heat treatment, and alloying are also discussed. This book is comprised of 114 chapters and begins with an overview of the titanium industry in Europe and the United States. The reader is then introduced to primary and secondary fabrication of titanium; corrosion and oxidation; physical properties of titanium alloys; interaction of titanium with elements of the periodic system; and elastic interactions between dislocations and twin and grain boundaries in titanium. The crystallography of deformation twinning in titanium is also examined, along with superplasticity and transformation plasticity in titanium. The remaining chapters focus on interstitial strengthening of titanium alloys; mechanism of martensitic transformation in titanium and its alloys; phase relationships in titanium-oxygen alloys; strengthening of titanium alloys by shock deformation; and titanium hot forming. This monograph will be of interest to chemists and metallurgists.

**Shaky Foundations** - Mark Solovey 2013-02-08

Numerous popular and scholarly accounts have exposed the deep impact of patrons on the production of scientific knowledge and its applications. *Shaky Foundations* provides the first extensive examination of a new patronage system for the social sciences that emerged in the early Cold War years and took more definite shape during the 1950s and early 1960s, a period of enormous expansion in American social science. By focusing on the military, the Ford Foundation, and the National Science Foundation, Mark Solovey shows how this patronage system presented social scientists and other interested parties, including natural scientists and politicians, with new opportunities to work out the scientific identity, social implications, and public policy uses of academic social research. Solovey also examines significant criticisms of the new patronage system, which contributed to widespread efforts to rethink and reshape the politics-patronage-social science nexus starting in the mid-1960s. Based on extensive archival research, *Shaky Foundations* addresses fundamental questions about the intellectual foundations of the social sciences, their relationships with the natural sciences and the humanities, and the political and ideological import of academic social inquiry.

**Mechanics of Flow-Induced Sound and Vibration, Volume 2** - William K. Blake 2017-08-14

*Mechanics of Flow-Induced Sound and Vibration, Volume 2: Complex Flow-Structure Interactions*, Second Edition, enables readers to fully understand flow-induced vibration and sound, unifying the disciplines of fluid dynamics, structural dynamics, vibration, acoustics, and statistics in order to classify and examine each of the leading sources of vibration and sound induced by various types of fluid motion. Starting from classical theories of aeroacoustics and hydroacoustics, a formalism of integral solutions valid for sources near boundaries is developed and then broadened to address different source types, including hydrodynamically induced cavitation and bubble noise, turbulent wall-pressure fluctuations, pipe and duct systems, lifting surface flow noise and vibration, and noise from rotating machinery. Each chapter is illustrated with comparisons of leading formulas and measured data. Combined with its companion book, *Mechanics of Flow-Induced Sound and Vibration, Volume 1: General Concepts and Elementary Sources*, the book covers everything an engineer needs to understand flow-induced sound and vibration. This book will be a vital source of information for postgraduate students, engineers and researchers with an interest in aerospace, ships and submarines, offshore structures, construction, and ventilation. Presents every important topic in flow-induced sound and vibration Covers all aspects of the topics addressed, from fundamental theory, to the analytical formulas used in practice Provides the building blocks of computer modeling for flow-induced sound and vibration

**Road Vehicle Automation 4** - Gereon Meyer 2017-06-28

This book is the fourth volume of the sub series of the Lecture Notes in Mobility dedicated to Road Vehicle Automation. Its chapters have been written by researchers, engineers and analysts from all around the globe. Topics covered include public sector activities, human factors and challenges, ethical, legal, energy and technology perspectives, vehicle systems development, as well as transportation infrastructure and planning. The book is based on the Automated Vehicles Symposium which took place in San Francisco,

California (USA) in July 2016.

**Overcoming Barriers to Deployment of Plug-in Electric Vehicles** - National Research Council 2015-06-26

In the past few years, interest in plug-in electric vehicles (PEVs) has grown. Advances in battery and other technologies, new federal standards for carbon-dioxide emissions and fuel economy, state zero-emission-vehicle requirements, and the current administration's goal of putting millions of alternative-fuel vehicles on the road have all highlighted PEVs as a transportation alternative. Consumers are also beginning to recognize the advantages of PEVs over conventional vehicles, such as lower operating costs, smoother operation, and better acceleration; the ability to fuel up at home; and zero tailpipe emissions when the vehicle operates solely on its battery. There are, however, barriers to PEV deployment, including the vehicle cost, the short all-electric driving range, the long battery charging time, uncertainties about battery life, the few choices of vehicle models, and the need for a charging infrastructure to support PEVs. What should industry do to improve the performance of PEVs and make them more attractive to consumers? At the request of Congress, *Overcoming Barriers to Deployment of Plug-in Electric Vehicles* identifies barriers to the introduction of electric vehicles and recommends ways to mitigate these barriers. This report examines the characteristics and capabilities of electric vehicle technologies, such as cost, performance, range, safety, and durability, and assesses how these factors might create barriers to widespread deployment. *Overcoming Barriers to Deployment of Plug-in Electric Vehicles* provides an overview of the current status of PEVs and makes recommendations to spur the industry and increase the attractiveness of this promising technology for consumers. Through consideration of consumer behaviors, tax incentives, business models, incentive programs, and infrastructure needs, this book studies the state of the industry and makes recommendations to further its development and acceptance.

**Vibrio ecology, pathogenesis and evolution** - Rita R Colwell 2014-10-24

Vibrios are Gram-negative bacilli that occur naturally in marine, estuarine, and freshwater systems. Some species include human and animal pathogens capable of causing gastroenteritis, wound infections, cholera, and fatal septicemia. Over the past decades, cutting edge research on *Vibrio* genomics has promoted a tremendous advance in our knowledge of these pathogens. Significant developments include the discovery of emerging epidemic clones, tracking the spread of new strain variants, and an intensified appreciation of the role of mobile genetic elements in antibiotic resistance spread as well as pathogenesis. Furthermore, improved understanding of the interaction of *Vibrios* with a variety of living organisms in the aquatic environment has documented the significant role of environmental reservoirs in their seasonal cycle favoring persistence of the pathogen during inter-epidemic periods and enhancing disease transmission. This Research Topic is dedicated to our current understanding in these areas and will bring together leading experts in the field to provide a deep overview of *Vibrios* ecology and evolution, and will suggest the pathway of future research in this field.

**Aerospace Materials and Material Technologies** - N. Eswara Prasad 2016-11-07

This book serves as a comprehensive resource on various traditional, advanced and futuristic material technologies for aerospace applications encompassing nearly 20 major areas. Each of the chapters addresses scientific principles behind processing and production, production details, equipment and facilities for industrial production, and finally aerospace application areas of these material technologies. The chapters are authored by pioneers of industrial aerospace material technologies. This book has a well-planned layout in 4 parts. The first part deals with primary metal and material processing, including nano manufacturing. The second part deals with materials characterization and testing methodologies and technologies. The third part addresses structural design. Finally, several advanced material technologies are covered in the fourth part. Some key advanced topics such as "Structural Design by ASIP", "Damage Mechanics-Based Life Prediction and Extension" and "Principles of Structural Health Monitoring" are dealt with at equal length as the traditional aerospace materials technology topics. This book will be useful to students, researchers and professionals working in the domain of aerospace materials.

**Federal Register** - 2013-09