

## Sina Ghaemi At University Of Alberta Ratemyprofessors Com

The definitive research paper guide, *Writing Research Papers* combines a traditional and practical approach to the research process with the latest information on electronic research and presentation. This market-leading text provides students with step-by-step guidance through the research writing process, from selecting and narrowing a topic to formatting the finished document. *Writing Research Papers* backs up its instruction with the most complete array of samples of any writing guide of this nature. The text continues its extremely thorough and accurate coverage of citation styles for a wide variety of disciplines. The fourteenth edition maintains Lester's successful approach while bringing new writing and documentation updates to assist the student researcher in keeping pace with electronic sources.

This book constitutes the refereed proceedings of the 19th International Conference on Web Engineering, ICWE 2019, held in Daejeon, South Korea, in June 2019. The 26 full research papers and 9 short papers presented were carefully reviewed and selected from 106 submissions. Additionally, two demonstrations, four posters, and four contributions to the PhD symposium as well as five tutorials are included in this volume. The papers cover research areas such as Web mining and knowledge extraction, Web big data and Web data analytics, social Web applications and crowdsourcing, Web user interfaces, Web security and privacy, Web programming, Web services and computing, Semantic Web and linked open data applications, and Web application modeling and engineering.

The aim of the School on Rheology of Complex fluids is to bring together young researchers and teachers from educational and R&D institutions, and expose them to the basic concepts and research techniques used in the study of rheological behavior of complex fluids. The lectures will be delivered by well-recognized experts. The book contents will be based on the lecture notes of the school.

Glycopolymers have received considerable interest in recent years due to their increasing potential applications in material science and biomedicine. With better understanding of the role of carbohydrates in biological systems and with recent advances in organic and carbohydrate chemistry, the design and synthesis of glycopolymers have become simpler where significant research efforts have been carried out towards the fabrication of advanced glyco-polymeric architectures for improved performance. This book provides an update on the recent advances on the synthesis of glycopolymers, their characterisations, their biological properties and their applications. The first objective of this book is to provide the readers a detailed overview about the synthesis of glycopolymers via several modern polymerisation techniques. The characterisation of these materials and their solution properties are also discussed. In addition to this, the conjugation of glycopolymers to different types of biomacromolecules are discussed. The second objective of this book is to provide the readers a detailed overview of the applications glycopolymers. In addition, the biological properties of the glycopolymers as a function of the types of carbohydrates attached, the polymer architectures and compositions are elaborated. This update will provide a quick reference to students and researchers working in both academia and industry.

This book presents selected papers from the 18th International Conference on Global Research and Education, Inter-Academia 2019, held in Budapest and Balatonfüred on September 4–7, 2019. The main goal of the conference was to provide an international forum for reviewing and assessing recent trends in both fundamental and applied research. In addition to sparking interest in recent research findings, the conference aimed to strengthen cooperation among the partners of the Inter-Academia community in the pursuit of new theoretical and practical research advances. The book contains a selection of papers based on lectures presented at the Inter-Academia 2019 conference and covering hot and challenging topics in the fields of machine intelligence and computer science, modeling and simulation, measurement, monitoring, and identification, electronics and nanoelectronics, bio- and environmental engineering, chemical processes and material science, together with related educational aspects. Accordingly, it offers a valuable resource for the global scientific community.

Distributed manipulation effects motion on objects through a large number of points of contact. The primary benefit of distributed manipulators is that many small inexpensive mechanisms can move and transport large heavy objects. In fact, each individual component is simple, but their combined effect is quite powerful. Furthermore, distributed manipulators are fault-tolerant because if one component breaks, the other components can compensate for the failure and the whole system can still perform its task. Finally, distributed manipulators can perform a variety of tasks in parallel. Distributed manipulation can be performed by many types of mechanisms at different scales. Due to the recent advances of MEMS (micro-electro-mechanical system) technology, it has become feasible to quickly manufacture distributed micro-manipulators at low cost. One such system is an actuator array where hundreds of micro-scaled actuators transport and manipulate small objects that rest on them. Macroscopic versions of the actuator array have also been developed and analyzed. Another form of distributed manipulation is derived from a vibrating plate, and teams of mobile robots have been used to herd large objects into desired locations. There are many fundamental issues involved in distributed manipulation. Since a distributed manipulator has many actuators, distributed control strategies must be considered to effectively manipulate objects. A basic understanding of contact analysis between the actuators and object must also be considered. When each actuator in the array has a sensor, distributed sensing presents some basic research challenges. Distributed computation and communication are key issues to enable the successful deployment of distributed manipulators into use. Finally, the trade-off in centralized and de-centralized approaches in all of these algorithms must be investigated.

Recent advancements in mechanical engineering are an essential topic for discussion. The topics relating to mechanical engineering include the following: measurements of signals of shafts, springs, belts, bearings, gears, rotors, machine elements, vibration analysis, acoustic analysis, fault diagnosis, construction, analysis of machine operation, analysis of

smart-material systems, integrated systems, stresses, analysis of deformations, analysis of mechanical properties, signal processing of mechanical systems, and rotor dynamics. Mechanical engineering deals with solid and fluid mechanics, rotation, movements, materials, and thermodynamics. This book, with 15 published articles, presents the topic "Symmetry in Mechanical Engineering". The presented topic is interesting. It is categorized into eight different sections: Deformation; Stresses; Mechanical properties; Tribology; Thermodynamic; Measurement; Fault diagnosis; Machine. The development of techniques and methods related to mechanical engineering is growing every month. The described articles have made a contribution to mechanical engineering. The proposed research can find applications in factories, oil refineries, and mines. It is essential to develop new improved methods, techniques, and devices related to mechanical engineering.

This book contains contributions presented at the Active Flow Control 2006 conference, held September 2006, at the Technische Universität Berlin, Germany. It contains a well balanced combination of theoretical and experimental state-of-the-art results of Active Flow Control. Coverage combines new developments in actuator technology, sensing, robust and optimal open- and closed-loop control and model reduction for control.

Through the lens of culture, *The Internet of Elsewhere* looks at the role of the Internet as a catalyst in transforming communications, politics, and economics. Cyrus Farivar explores the Internet's history and effects in four distinct and, to some, surprising societies—Iran, Estonia, South Korea, and Senegal. He profiles Web pioneers in these countries and, at the same time, surveys the environments in which they each work. After all, contends Farivar, despite California's great success in creating the Internet and spawning companies like Apple and Google, in some areas the United States is still years behind other nations. Surprised? You won't be for long as Farivar proves there are reasons that: Skype was invented in Estonia—the same country that developed a digital ID system and e-voting; Iran was the first country in the world to arrest a blogger, in 2003; South Korea is the most wired country on the planet, with faster and less expensive broadband than anywhere in the United States; Senegal may be one of sub-Saharan Africa's best chances for greater Internet access. *The Internet of Elsewhere* brings forth a new complex and modern understanding of how the Internet spreads globally, with both good and bad effects.

*Operation of Distributed Energy Resources in Smart Distribution Networks* defines the barriers and challenges of smart distribution networks, ultimately proposing optimal solutions for addressing them. The book considers their use as an important part of future electrical power systems and their ability to improve the local flexibility and reliability of electrical systems. It carefully defines the concept as a radial network with a cluster of distributed energy generations, various types of loads, and energy storage systems. In addition, the book details how the huge penetration of distributed energy resources and the intermittent nature of renewable generations may cause system problems. Readers will find this to be an important resource that analyzes and introduces the features and problems of smart distribution networks from different aspects. Integrates different types of elements, including electrical vehicles, demand response programs, and various renewable energy sources in distribution networks Proposes optimal operational models for the short-term performance and scheduling of a distribution network Discusses the uncertainties of renewable resources and intermittent load in the decision-making process for distribution networks

The subject of ocean turbulence is in a state of discovery and development with many intellectual challenges. This book describes the principal dynamic processes that control the distribution of turbulence, its dissipation of kinetic energy and its effects on the dispersion of properties such as heat, salinity, and dissolved or suspended matter in the deep ocean, the shallow coastal and the continental shelf seas. It focuses on the measurement of turbulence, and the consequences of turbulent motion in the oceanic boundary layers at the sea surface and near the seabed. Processes are illustrated by examples of laboratory experiments and field observations. *The Turbulent Ocean* provides an excellent resource for senior undergraduate and graduate courses, as well as an introduction and general overview for researchers. It will be of interest to all those involved in the study of fluid motion, in particular geophysical fluid mechanics, meteorology and the dynamics of lakes.

This book develops concepts and a methodology for a rational description of the organization of three-dimensional flows considering, in particular, the case where the flow is the place of separations. The descriptive analysis based on the critical point theory of Poincaré develops conventional but rather unfamiliar considerations from aerodynamicists, who face the understanding of complex flows including multiple separation lines and vortices. These problems concern industrial sectors where aerodynamics plays a key role, such as aerospace, ground vehicles, buildings, etc. Contents 1. Skin Friction Lines Pattern and Critical Points. 2. Separation Streamsurfaces and Vortex Structures. 3. Separated Flow on a Body. 4. Vortex Wake of Wings and Slender Bodies. 5. Separation Induced by an Obstacle or a Blunt Body. 6. Reconsideration of the Two-Dimensional Separation. 7. Concluding Remarks. About the Authors Jean Déleroy is a Supaero (French National Higher School of Aeronautics and Space) engineer who has worked at Onera (French national aerospace research center) since 1964. He has participated in several major French and European aerospace programs, is the author of many scientific publications, and has occupied various teaching positions particularly at Supaero, the University of Versailles-Saint-Quentin, Ecole polytechnique in France and "La Sapienza" University in Rome, Italy. He is currently emeritus adviser at Onera.

It is our pleasure to welcome you to the proceedings of the 13th International Computer Society of Iran Computer Conference (CSICC-2008). The conference has been held annually since 1995, except for 1998, when it transitioned from a year-end to first-quarter schedule. It has been moving in the direction of greater selectivity (see Fig.1) and broader international participation. Holding it in Kish Island this year represents an effort to further facilitate and encourage international contributions. We feel privileged to participate in further advancing this strong technical tradition.

60	50	40	30	20	10	0	Dec 23-26	Dec 23-25	Dec 23-25
Jan 26-28	Mar 8-10	Feb 21-23	Feb 28-30	Feb 23-26	Feb 16-19	Feb 15-18	Jan 24-26	Feb 20-22	Mar 9-11
1995	1996	1997	Iran	1999	2000	2001	U of	2002	Iran
2003	2004	2005	Iran	2006	IPM,	2007	2008	Sharif U	Amirkabir U of
Sharif U	Shahid Isfahan,	Telecom Ferdowsi	Sharif U	Telecom Tehran	Shahid Sharif U of	Tech,	U of Tech,	Sci/Tech,	of Tech,
Beheshti Isfahan Res. U,	of Tech,	Res. Beheshti of	Tech,	Tehran	Tehran	Tehran	Tehran	U,	Tehran
Kish Island	Dates,	Year,	Venue						

Why is wall turbulence self-sustaining? In this book well-regarded researchers not only discuss what they know and believe, but also speculate on ideas that still require numerical or experimental testing and verification. An initial brief history of boundary layer structure research is followed by chapters on experimental information and specific topics within the subject. There are then sections on computational aspects.

Concise compilation of subsonic aerodynamic characteristics of NACA wing sections, plus description of theory. 350 pages of tables.

This book is the second volume in the series "Contact Angle, Wettability and Adhesion." The premier volume was published in 2013. Even a cursory glance at the literature show that in recent years the interest in understanding and controlling wetting behavior has grown exponentially. Currently, there is tremendous research activity in rendering surfaces superhydrophobic, superhydrophilic, superoleophobic, superoleophilic, omniphobic and omniphilic because of their applications in many technologically important fields. Also the durability or robustness of materials with such super characteristics is extremely significant, as well as the utilization of "green" (biobased) materials to obtain such surfaces. This book containing 19 articles reflects more recent developments in certain areas covered in its predecessor volume as well as it includes some topics which were not covered before. Concomitantly, this book provides a medium to keep abreast of the latest research activity and developments in the arena of contact angle, wettability and adhesion. The topics discussed include: Understanding of wetting hysteresis; fabrication of superhydrophobic materials; plasma treatment to achieve superhydrophilic surfaces; highly liquid repellent textiles; modification of paper surfaces to control liquid wetting and adhesion; Cheerios effect and its control; engineering materials with superwettability; laser ablation to create micro/nano-patterned surfaces; liquid repellent amorphous carbon nanoparticle networks; mechanical durability of liquid repellent surfaces; wetting of solid walls and spontaneous capillary flow; relationship between roughness and oleophilicity; superhydrophobic and superoleophobic green materials; computational analysis of wetting on hydrophobic surfaces: application to self-cleaning mechanisms; bubble adhesion to superhydrophilic surfaces; surface free energy of superhydrophobic materials; and role of surface free energy in pharmaceutical tablet tensile strength.

As a major mainstay of clinical focus and research today, bipolar disorder affects millions of individuals across the globe with its extreme and erratic shifts of mood, thinking and behavior. Edited by a team of experts in the field, *The Bipolar Book: History, Neurobiology, and Treatment* is a testament and guide to diagnosing and treating this exceedingly complex, highly prevalent disease. Featuring 45 chapters from an expert team of contributors from around the world, *The Bipolar Book* delves deep into the origins of the disorder and how it informs clinical practice today by focusing on such topics as bipolar disorder occurring in special populations, stigmatization of the disease, the role genetics play, postmortem studies, psychotherapy, treatments and more. Designed to be the definitive reference volume for clinicians, students and researchers, Aysegül Yildiz, Pedro Ruiz and Charles Nemeroff present *The Bipolar Book* as a "must have" for those caregivers who routinely deal with this devastating disease.

Investigation of Effervescent Atomization Using Laser-based Measurement Techniques  
Operation of Distributed Energy Resources in Smart Distribution Networks  
Academic Press

*Bubbles, Drops, and Particles in Non-Newtonian Fluids, Second Edition* continues to provide thorough coverage of the scientific foundations and the latest advances in particle motion in non-Newtonian media. The book demonstrates how dynamic behavior of single particles can yield useful information for modeling transport processes in complex multiphase flows. Completely revised and expanded, this second edition covers macroscopic momentum and heat/mass transfer from a single rigid or fluid particle or ensembles of particles involving strong inter-particle interactions including packed beds, fluidized beds, and porous media with different types of non-Newtonian fluids. It reflects advances made since the publication of the previous, bestselling edition with new material on topics such as extensional flow; time-independent, time-dependent and visco-elastic fluids; free settling behavior of non-spherical particles; and particle motion in visco-elastic and visco-plastic fluids, boundary layer flows, flows in porous media, and falling object rheometry. An excellent reference and handbook dealing with the technological aspects of non-Newtonian materials encountered in nature and in technology, this book highlights qualitative differences between the response of a Newtonian and non-Newtonian fluids in the complex flows encountered in processing applications.

Leading experts summarize our current understanding of the fundamental nature of turbulence, covering a wide range of topics.

The superfamily Chalcidoidea (Insecta, Hymenoptera) contains in excess of 26,000 described species worldwide, but with an estimated total diversity of more than 500,000 species the vast majority of species have yet to be discovered and described. Most chalcidoid species are parasitoids of hosts in at least 12 different insect orders, attacking the egg, larval or pupal stages, though phytophagy and other life cycles and hosts are known. Iran is the 18th largest country in the world and has a rich and diverse insect fauna, including Chalcidoidea. It is extremely interesting from a biogeographic point of view, and a paradise for an entomologist. This book summarizes the results of all prior research concerning species diversity of Iranian Chalcidoidea, including host records and distribution records by province in Iran as well as world distribution by country for 1,351 species of Chalcidoidea recorded from Iran through the end of 2019.

The book begins by covering the general and clinical challenges that are unique to Muslims, drawing from an internationally, ethnically, and intergenerationally diverse pool of experts. The text covers not only how psychiatrists and other clinicians can intervene successfully with patients, but how we as clinicians can have a role in addressing other societally connected mental health challenges arising from Islamophobia. The text addresses three related but distinct areas of interest: Islamophobia as a destructive force, Islam as a religion that is threatened by stigma and misinformation, and the novel intersection of these forces with the field of psychiatry. *Islamophobia and Psychiatry* is a vital resource for all clinicians and clinicians in training who may encounter patients struggling with these issues, including adult and child psychiatrists, psychologists, primary care physicians, counselors, social workers, and others.

*Falling Liquid Films* gives a detailed review of state-of-the-art theoretical, analytical and numerical methodologies, for the analysis of dissipative wave dynamics and pattern formation on the surface of a film falling down a planar inclined substrate. This prototype is an open-flow hydrodynamic instability, that represents an excellent paradigm for the study of complexity in active nonlinear media with energy supply, dissipation and dispersion. It will also be of use for a more general understanding of specific events characterizing the transition to spatio-temporal chaos and weak/dissipative turbulence. Particular emphasis is given to low-dimensional approximations for such flows through a hierarchy of modeling approaches, including equations of the boundary-layer type, averaged formulations based on weighted residuals

approaches and long-wave expansions. Whenever possible the link between theory and experiment is illustrated, and, as a further bridge between the two, the development of order-of-magnitude estimates and scaling arguments is used to facilitate the understanding of basic, underlying physics. This monograph will appeal to advanced graduate students in applied mathematics, science or engineering undertaking research on interfacial fluid mechanics or studying fluid mechanics as part of their program. It will also be of use to researchers working on both applied, fundamental theoretical and experimental aspects of thin film flows, as well as engineers and technologists dealing with processes involving isothermal or heated films. This monograph is largely self-contained and no background on interfacial fluid mechanics is assumed.

The proceedings of a memorial conference in honour of Professor Zoran Zario are contained in this volume. The conference was held in Dubrovnik, Yugoslavia, in May 1988, and provided a summary of Professor Zario's field - near wall turbulence.

In the disciplines of applied linguistics and second language acquisition (SLA), the study of pragmatic competence has been driven by several fundamental questions: What does it mean to become pragmatically competent in a second language (L2)? How can we examine pragmatic competence to make inference of its development among L2 learners? In what ways do research findings inform teaching and assessment of pragmatic competence? This book explores these key issues in Japanese as a second/foreign language. The book has three sections. The first section offers a general overview and historical sketch of the study of Japanese pragmatics and its influence on Japanese pedagogy and curriculum. The overview chapter is followed by eight empirical findings, each dealing with phenomena that are significant in Japanese pragmatics. They target selected features of Japanese pragmatics and investigate the learners' use of them as an indicator of their pragmatic competence. The target pragmatic features are wide-ranging, among them honorifics, speech style, sentence final particles, speech acts of various types, and indirect expressions. Each study explicitly prompts the connection between pragmalinguistics (linguistic forms available to perform language functions) and sociopragmatics (norms that determine appropriate use of the forms) in Japanese. By documenting the understanding and use of them among learners of Japanese spanning multiple levels and time durations, this book offers insight about the nature and development of pragmatic competence, as well as implications for the learning and teaching of Japanese pragmatics. The last section presents a critical reflection on the eight empirical papers and prompts a discussion of the practice of Japanese pragmatics research.

'Antibacterial Surfaces' covers the advances being made in the design of antibacterial surfaces, which have the ability to either prevent the initial attachment of bacterial cells, or kill any cells that come into contact with these surfaces. This book discusses the mechanisms associated with the attachment of bacteria to surfaces and the main strategies currently being employed to control the initial attachment processes. These strategies are expanded upon in the subsequent chapters, where the definition and description of antibacterial surfaces are clarified, as are the mechanisms that come into play when determining the effectiveness of an antibacterial surface. Subsequent chapters discuss a number of naturally occurring antibacterial surfaces, the methods currently being used for producing synthetic antibacterial surfaces, and the current and potential applications of such materials. This book will be of great interest to people who work with materials that need to remain free of bacterial films, from designing safer biomedical implants to the production of self-cleaning materials where the prevention of biofilm formation has significant economic advantages.

This comprehensive handbook presents fundamental aspects, fabrication techniques, introductory materials on microbiology and chemistry, measurement techniques, and applications of microfluidics and nanofluidics. The second volume focuses on topics related to experimental and numerical methods. It also covers fabrication and applications in a variety of areas, from aerospace to biological systems. Reflecting the inherent nature of microfluidics and nanofluidics, the book includes as much interdisciplinary knowledge as possible. It provides the fundamental science background for newcomers and advanced techniques and concepts for experienced researchers and professionals.

This book is about two special topics in rheological fluid mechanics: the elasticity of liquids and asymptotic theories of constitutive models. The major emphasis of the book is on the mathematical and physical consequences of the elasticity of liquids; seventeen of twenty chapters are devoted to this. Constitutive models which are instantaneously elastic can lead to some hyperbolicity in the dynamics of flow, waves of vorticity into rest (known as shear waves), to shock waves of vorticity or velocity, to steady flows of transonic type or to short wave instabilities which lead to ill-posed problems. Other kinds of models, with small Newtonian viscosities, give rise to perturbed instantaneous elasticity, associated with smoothing of discontinuities as in gas dynamics. There is no doubt that liquids will respond like elastic solids to impulses which are very rapid compared to the time it takes for the molecular order associated with short range forces in the liquid, to relax. After this, all liquids look viscous with signals propagating by diffusion rather than by waves. For small molecules this time of relaxation is estimated as  $10^{-13}$  to  $10^{-10}$  seconds depending on the fluids. Waves associated with such liquids move with speeds of  $10^3$  cm/s, or even faster. For engineering applications the instantaneous elasticity of these fluids is of little interest; the practical dynamics is governed by diffusion, -say, by the Navier-Stokes equations. On the other hand, there are other liquids which are known to have much longer times of relaxation.

This book analyses and comprehensively explains the necessary factors for designing and implementing PIV systems that achieve reliable, accurate, and fast measurements.

This is the proceedings of the ERCOFTAC Workshop on Progress in Wall Turbulence: Understanding and Modelling, that was held in Lille, France from June 18 to 20, 2014. The workshop brought together world specialists of near wall turbulence and stimulated exchanges between them around up-to-date theories, experiments, simulations and numerical models. This book contains a coherent collection of recent results on near wall turbulence including theory, new experiments, DNS and modeling with RANS, LES. The fact that both physical understanding and modeling by different approaches are addressed by the best specialists in a single workshop is original.

In the last decade, due to factors of ICT infrastructural and broadband maturation, rising levels of educational attainment and computer literacy, and diversification strategies, e-learning has exploded in the Middle East and North Africa (MENA) region. However, significant barriers remain in the region's e-learning development: lack of research on outcomes and effectiveness, paucity of Arabic language learning objects, monopolies and high cost of telecommunications, cultural taboos, accreditation, censorship, and teacher training. This unique volume is the first comprehensive effort to describe the history, development, and current state of e-learning in each of the 20 MENA countries from Algeria to Yemen. Each entry is expertly written by a specialist who is acutely familiar with the state of e-learning in their respective country, and concludes with a bibliography of key reports, peer-reviewed books and articles, and web resources. E-Learning in the Middle East and North Africa (MENA) proves itself as a vital compendium for a wide readership that includes academics and students, transnational program directors, international education experts, MENA government departments, commercial vendors and investors, and ICT development and regulatory agencies involved in e-learning in the Middle East.

Oxford Studies in Philosophy of Mind presents cutting-edge work in the philosophy of mind, combining invited articles and articles selected from submissions. Each volume will highlight two themes to bring focus to debates. The series will reflect the diversity of methods adopted in contemporary philosophy of mind and provide a venue for rigorous and innovative work by both established and up-and-coming voices in the field. The themes in this inaugural volume are the value of consciousness, and physicalism and

naturalism. Other essays concern the nature of mental content, and dualism in medieval Islamic philosophy. Accompanying DVD-ROM contains ... "all chapters of the Springer Handbook."--Page 3 of cover.

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