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A Hands-On Guide for Programmers and Data Scientists

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Fractional Calculus: Theory and Applications

Information Retrieval Methods for Multidisciplinary Applications

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Proceedings of ICSCSP 2018, Volume 1

Intelligent Information Processing X

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Advanced Computing and Communication Technologies

Microbial Functional Genomics

Machine Learning Techniques for Adaptive Multimedia Retrieval: Technologies
Applications and Perspectives

ACCV 2016 International Workshops, Taipei, Taiwan, November 20-24, 2016, Revised
Selected Papers, Part II
Festschrift for Martin Grötschel
Fundamentals of Machine Vision
Soft Computing and Signal Processing
Concepts and Methods for a Librarian of the Web
Advances in Computational Collective Intelligence
Advances in Interdisciplinary Applied Discrete Mathematics
Proceedings of International Conference on Computational Intelligence and Data
Engineering
11th IFIP TC 12 International Conference, IIP 2020, Hangzhou, China, July 3-6, 2020,
Proceedings
Access
Green Energy and Networking
Proceedings of the 10th ICACCT, 2016
Doppler Radar Meteorological Observations: WSR-88D products and algorithms
Proceedings of Third International Conference INDIA 2016, Volume 2
12th International Conference, ICCCI 2020, Da Nang, Vietnam, November 30 -
December 3, 2020, Proceedings
UbiComp 2007: Ubiquitous Computing

Including Sessions on Nuclear Power Systems and Medical Imaging Conference :
October 22-27, 1990, the Hyatt Regency-Crystal City, Arlington, VA
Fast Star Tracker Centroid Algorithm for High Performance CubeSat with Air Bearing
Validation
21-25 June, 2004, Glasgow, Scotland, United Kingdom
Advances on Smart and Soft Computing
Proceedings of the 14th International Conference on Computing and Information
Technology (IC2IT 2018)
6th International Conference, PSATS 2014, Genoa, Italy, July 28-29, 2014, Revised
Selected Papers
21st International Conference on Theory and Practice of Digital Libraries, TPDL 2017,
Thessaloniki, Greece, September 18-21, 2017, Proceedings
Computational Intelligence in Intelligent Data Analysis
Recent Advances in Information and Communication Technology 2018
Applied Data Mining
7th EAI International Conference, GreeNets 2020, Harbin, China, June 27-28, 2020,
Proceedings

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Advancements in Adaptive Optics

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This book constitutes the proceedings of the 21st International Conference on Theory and Practice of Digital Libraries, TPDL 2017, held in Thessaloniki, Greece, in September 2017. The 39 full papers, 11 short papers, and 10 poster papers presented in this volume were carefully reviewed and selected from 106 submissions. In addition the book contains

7 doctoral consortium papers. The contributions are organized in topical sections named: linked data; corpora; data in digital libraries; quality in digital libraries; digital humanities; entities; scholarly communication; sentiment analysis; information behavior; information retrieval.

Personal Satellite Services. Next-Generation Satellite Networking and Communication Systems
Springer Nature

This book constitutes the refereed proceedings of the 11th IFIP TC 12

International Conference on Intelligent Information Processing, IIP 2020, held in Hangzhou, China, in July 2020. The 24 full papers and 5 short papers presented were carefully reviewed and selected from 36 submissions. They are organized in topical sections on machine learning; multi-agent system; recommendation system; social computing; brain computer integration; pattern recognition; and computer vision and image understanding. A Hands-On Guide for

Programmers and Data Scientists Springer Nature
The World Wide Web can be considered a huge library that in consequence needs a capable librarian responsible for the classification and retrieval of documents as well as the mediation between library resources and users. Based on this idea, the concept of the “Librarian of the Web” is introduced which comprises novel, librarian-inspired methods and technical solutions to decentrally search for text

documents in the web using peer-to-peer technology. The concept’s implementation in the form of an interactive peer-to-peer client, called “WebEngine”, is elaborated on in detail. This software extends and interconnects common web servers creating a fully integrated, decentralised and self-organising web search system on top of the existing web structure. Thus, the web is turned into its own powerful search engine without the need for any central

authority. This book is intended for researchers and practitioners having a solid background in the fields of Information Retrieval and Web Mining. *Progress in Computing, Analytics and Networking* Springer
Reducing the cost of space program interests people more and more nowadays due to the concerns of budget limitation and commercialization of space technology. The Proceedings of the 3rd International Symposium on Reducing the Cost of

Spacecraft Ground Systems and Operations bring together papers contributed by the authors representing the research organizations, academic institutions and commercial sectors of 10 countries around the world. The papers encompass the subject areas in mission planning and operation, TT&C systems, mission control centers, and mini and small satellite support, highlighting the issues concerned by the researchers and engineers involved in a

wide range of space programs and space industries.

Fractional Calculus: Theory and Applications John Wiley & Sons

The third international conference on Information Systems Design and Intelligent Applications (INDIA - 2016) held in Visakhapatnam, India during January 8-9, 2016. The book covers all aspects of information system design, computer science and technology, general sciences, and

educational research. Upon a double blind review process, a number of high quality papers are selected and collected in the book, which is composed of three different volumes, and covers a variety of topics, including natural language processing, artificial intelligence, security and privacy, communications, wireless and sensor networks, microelectronics, circuit and systems, machine learning, soft computing, mobile computing and applications, cloud

computing, software engineering, graphics and image processing, rural engineering, e-commerce, e-governance, business computing, molecular computing, nano-computing, chemical computing, intelligent computing for GIS and remote sensing, bio-informatics and bio-computing. These fields are not only limited to computer researchers but also include mathematics, chemistry, biology, bio-chemistry, engineering, statistics, and all others in which computer

techniques may assist.

Information Retrieval Methods for Multidisciplinary Applications John Wiley & Sons

The two-volume set LNAI 8397 and LNAI 8398 constitutes the refereed proceedings of the 6th Asian Conference on Intelligent Information and Database Systems, ACIIDS 2014, held in Bangkok, Thailand, in April 2014. The 125 revised papers presented were carefully reviewed and selected from 300 submissions. The papers address the

following topics: natural language and text processing, intelligent information retrieval, semantic Web, social networks and recommendation systems, intelligent database systems, decision support systems, computer vision techniques, and machine learning and data mining. The papers are organized in topical sections on multiple model approach to machine learning, MMAML 2014, computational intelligence, CI 2014, engineering knowledge

and semantic systems, IWEKSS 2014, innovations in intelligent computation and applications, IICA 2014, modeling and optimization techniques in information systems, database systems and industrial systems, MOT 2014, innovation via collective intelligences and globalization in business management, ICIGBM 2014, intelligent supply chains, ISC 2014, and human motion: acquisition, processing, analysis, synthesis and visualization for massive datasets, HMMD 2014.

Principles of Adaptive Optics Springer
 Focuses on fields such as consensus and voting theory, clustering, location theory, mathematical biology, and optimization that have seen an upsurge of exciting works over the years using discrete models in modern applications. This book discusses advances in the fields, highlighting the approach of cross-fertilization of ideas across disciplines.
Proceedings of ICSCSP 2018, Volume 1 Fast

Star Tracker Centroid Algorithm for High Performance CubeSat with Air Bearing ValidationState of the art CubeSats such as ExoplanetSat require pointing precision for the science payload on the order of arcseconds. ExoplanetSat uses dual stage control to achieve the pointing requirement. Reaction wheels provide coarse satellite attitude control while a high bandwidth piezoelectric stage performs fine optical stabilization. The optical sensor provides

star images from which a centroiding algorithm estimates the star locations on the optical focal plane. The star locations are used for both the optical control loop and satellite attitude determination. The centroiding algorithm requires a short processing time to maximize the bandwidth of the fine control loop. This thesis proposes a new fast centroiding algorithm based on centroid window tracking. The tracking algorithm utilizes centroid data from

previous image frames to estimate the motion of the optical sensor. The estimated motion provides a prediction of the current centroid locations. An image window is centered at each predicted star location. A center of mass calculation is performed on the image window to determine the centroid location. This proposed algorithm is shown to reduce the computation time by a factor of 10 with a novel air bearing hardware testbed. This thesis also develops a

high fidelity optical imager model in MATLAB Simulink. This model can be used to test centroiding algorithms and to simulate optical systems in a spacecraft pointing simulator. The model is validated with the air bearing testbed. Furthermore, the model is autocoded to C-code which is compatible with a rapid Monte Carlo analysis framework. Fundamentals of Machine Vision This book constitutes the refereed post-conference proceedings of the 7th International Conference

on Green Energy and Networking, GreeNets 2020, held in Harbin, China, in June 2020. Due to COVID-19 pandemic the conference was held virtually. The 35 full papers were selected from 87 submissions and are grouped in tracks on Green Communication; Green Energy; and Green Networking.

[Intelligent Information Processing X](#) Springer Nature

State of the art CubeSats such as ExoplanetSat require pointing precision for the science payload on

the order of arcseconds. ExoplanetSat uses dual stage control to achieve the pointing requirement. Reaction wheels provide coarse satellite attitude control while a high bandwidth piezoelectric stage performs fine optical stabilization. The optical sensor provides star images from which a centroiding algorithm estimates the star locations on the optical focal plane. The star locations are used for both the optical control loop and satellite attitude determination. The

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the air bearing testbed. Furthermore, the model is autocoded to C-code which is compatible with a rapid Monte Carlo analysis framework. [Advances in Molecular Biophotonics](#) Springer This book is a printed edition of the Special Issue "Fractional Calculus: Theory and Applications" that was published in Mathematics **Advanced Computing and Communication Technologies** Springer This volume contains selected papers presented at the 10th International

Conference on Advanced Computing and Communication Technologies (10th ICACCT 2016), technically sponsored by Institution of Electronics and Telecommunication Engineers (India), held during 18 - 20 November 2016 at Asia Pacific Institute of Information Technology, Panipat, India. The volume reports latest research on a wide range of topics spanning theory, system, applications and case studies in the fields of computing and

communication technologies. Topics covered are robotics, computational intelligence encompassing fuzzy logic, neural networks, GA and evolutionary computing, applications, knowledge representation, data encryption, distributed computing, data analytics and visualization, knowledge representation, wireless sensor networks, MEM sensor design, analog circuit, statistical machine translation, cellular automata and antenna design. The volume has

31 chapters, including an invited paper on swarm robotics, grouped into three parts, viz., Advanced Computing, Communication Technologies, and Micro Electronics and Antenna Design. The volume is directed to researchers and practitioners aspiring to solve practical issues, particularly applications of the theories of computational intelligence, using recent advances in computing and communication technologies. Microbial Functional

Genomics SPIE Press

This book is both a reference for engineers and scientists and a teaching resource, featuring tutorial chapters and research papers on feature extraction. Until now there has been insufficient consideration of feature selection algorithms, no unified presentation of leading methods, and no systematic comparisons.

Machine Learning Techniques for Adaptive Multimedia Retrieval: Technologies Applications and

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*Festschrift for Martin
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Collecting data is

relatively easy, but
turning raw information
into something useful
requires that you know
how to extract precisely
what you need. With this
insightful book,
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experienced programmers
interested in data analysis
will learn techniques for
working with data in a
business environment.
You'll learn how to look at
data to discover what it
contains, how to capture
those ideas in conceptual
models, and then feed
your understanding back
into the organization

through business plans, metrics dashboards, and other applications. Along the way, you'll experiment with concepts through hands-on workshops at the end of each chapter. Above all, you'll learn how to think about the results you want to achieve -- rather than rely on tools to think for you. Use graphics to describe data with one, two, or dozens of variables Develop conceptual models using back-of-the-envelope calculations, as well as scaling and probability arguments Mine data with

computationally intensive methods such as simulation and clustering Make your conclusions understandable through reports, dashboards, and other metrics programs Understand financial calculations, including the time-value of money Use dimensionality reduction techniques or predictive analytics to conquer challenging data analysis situations Become familiar with different open source programming environments for data analysis "Finally, a concise reference for

understanding how to conquer piles of data."-- Austin King, Senior Web Developer, Mozilla "An indispensable text for aspiring data scientists."-- Michael E. Driscoll, CEO/Founder, Dataspora [Fundamentals of Machine Vision](#) Springer "This book provides innovative research on information gathering, web data mining, and automation systems, addressing multidisciplinary applications and focusing on theories and methods with an enterprise-wide

perspective"--Provided by publisher.

Soft Computing and Signal Processing MDPI

Data mining can be defined as the process of selection, exploration and modelling of large databases, in order to discover models and patterns. The increasing availability of data in the current information society has led to the need for valid tools for its modelling and analysis. Data mining and applied statistical methods are the appropriate tools to extract such knowledge

from data. Applications occur in many different fields, including statistics, computer science, machine learning, economics, marketing and finance. This book is the first to describe applied data mining methods in a consistent statistical framework, and then show how they can be applied in practice. All the methods described are either computational, or of a statistical modelling nature. Complex probabilistic models and mathematical tools are not used, so the book is

accessible to a wide audience of students and industry professionals. The second half of the book consists of nine case studies, taken from the author's own work in industry, that demonstrate how the methods described can be applied to real problems. Provides a solid introduction to applied data mining methods in a consistent statistical framework Includes coverage of classical, multivariate and Bayesian statistical methodology Includes many recent

developments such as web mining, sequential Bayesian analysis and memory based reasoning Each statistical method described is illustrated with real life applications Features a number of detailed case studies based on applied projects within industry Incorporates discussion on software used in data mining, with particular emphasis on SAS Supported by a website featuring data sets, software and additional material Includes an extensive bibliography

and pointers to further reading within the text Author has many years experience teaching introductory and multivariate statistics and data mining, and working on applied projects within industry A valuable resource for advanced undergraduate and graduate students of applied statistics, data mining, computer science and economics, as well as for professionals working in industry on projects involving large volumes of data - such as in marketing or financial risk

management.

Concepts and Methods for a Librarian of the Web

Walter de Gruyter GmbH & Co KG

Being the most active field in modern physics, Optical Physics has developed many new branches and interdisciplinary fields overlapping with various classical disciplines. This series summarizes the advancements of optical physics in the past twenty years in the following fields: High Field Laser Physics, Precision Laser Spectroscopy, Nonlinear

Optics, Nanophotonics, Quantum Optics, Ultrafast Optics, Condensed Matter Optics, and Molecular Biophotonics.

Advances in Computational Collective Intelligence
Springer

With the recent and enormous increase in the amount of available data sets of all kinds, applying effective and efficient techniques for analyzing and extracting information from that data has become a crucial task. Intelligent Data Analysis for Real-Life

Applications: Theory and Practice investigates the application of Intelligent Data Analysis (IDA) to these data sets through the design and development of algorithms and techniques to extract knowledge from databases. This pivotal reference explores practical applications of IDA, and it is essential for academic and research libraries as well as students, researchers, and educators in data analysis, application development, and

database management.

Advances in Interdisciplinary Applied Discrete Mathematics
Springer

This book is a collection of high-quality research work on cutting-edge technologies and the most-happening areas of computational intelligence and data engineering. It includes selected papers from the International Conference on Computational Intelligence and Data Engineering (ICCIDE 2020). It covers various topics, including collective

intelligence, intelligent transportation systems, fuzzy systems, Bayesian network, ant colony

optimization, data privacy and security, data mining, data warehousing, big data analytics, cloud

computing, natural language processing, swarm intelligence and speech processing.

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