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 High/Ultra-high Speed Imaging as a Diagnostic Tool
 The Evolution of High and Ultra-high Speed Imaging from Qualitative to Quantitative
 Automotive Engineering International
 High Speed Imaging Instrumentation
 High Speed Imaging at 3.0T.
 Nuclear Power Plant Equipment Prognostics and Health Management Based on Data-driven methods
 Reactor Fuels, Materials and Systems under Extreme Environments
 Mechanical and Aerospace Engineering, ICMAE2011
 High-Speed Biomedical Imaging and Spectroscopy: Toward Big Data Instrumentation and Management
 Treasury, Postal Service, and General Government Appropriations for Fiscal Year 1997
 High-speed Imaging and Sequence Analysis
 Proceedings
 Phase I Development of a Non-proprietary, Four-cable, High Tension Median Barrier
 High Performance Imaging Using Arrays of Inexpensive Cameras
 Haptic Feedback Teleoperation of Optical Tweezers
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 Jane's International Defense Review
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SHANNON CRUZ

[Efficient Space-time Sampling with Pixel-wise Coded Exposure for High Speed Imaging](#) John Wiley & Sons

This volume covers the latest advancements in the study of ciliary complexity. Protocols cover genomic, proteomic, imaging, and functional analysis of different ciliated tissues and their wide applicability in cilia biology. Chapters in this book primarily focus on methods to study multiciliated cells, and discuss topics such as SARS-CoV-2 infections of human primary nasal multiciliated epithelial cells; expansion microscopy of ciliary proteins; live-imaging centriole amplification in mouse brain multiciliated cells; biophysical properties of cilia motility; and mucociliary transport device construction. Written in the highly successful Methods in Molecular Biology series format, chapters include introductions to their respective topics, lists of the necessary materials and reagents, step-by-step, readily reproducible laboratory protocols, and tips on troubleshooting and

avoiding known pitfalls. Cutting-edge and thorough, Cilia: Methods and Protocols is a valuable resource for researchers who are interested in learning more about this developing field.

Indirekte Schätzung des Fahrbahnneigungsgrads zur Detektion von gefährlichen Fahrzuständen

Springer

The authors of this book provide the first review of haptic optical tweezers, a new technique which brings together force feedback teleoperation and optical tweezers. This technique allows users to explore the microworld by sensing and exerting piconewton-scale forces with trapped microspheres. The design of optical tweezers for high-quality haptic feedback is challenging, given the requirements for very high sensitivity and dynamic stability. The concept, design process and specification of optical tweezers reviewed throughout this book focus on those intended for haptic teleoperation. The authors provide two new specific designs as well as the current state of the art. Furthermore, the remaining important issues are identified for further developments. Haptic optical tweezers will soon become an invaluable tool for force feedback micromanipulation of biological samples and nano- and micro-assembly parts.

The Development of Electronics for a High-speed Imaging Particle Sizing System KIT Scientific Publishing

This work systematically describes the mechanisms of tyre/road noise at driving and braking torque based on measurements with different tyres. The studies on the influence of circumferential force on tyre/road noise can be divided into two different tire tread designs. One sub-chapter reports about a selective influence of force induced tyre/road noise using inclined groove edges. The influence of the circumferential stiffness of the tread blocks on the tyre/road noise is discussed afterwards.

Magnesium Technology 2012 Trans Tech Publications Ltd

Breaking Through the Speed Barrier - Advancements in High-Speed Imaging.

[River Flow 2016](#) Frontiers Media SA

The goal of this book is to collect methods and protocols for studying cilia in a wide range of different cell types, so that researchers from many fields of biology can start exploring the role of cilia in their own system. - Chapters are written by experts in the field - Cutting-edge material

Laser Focus World KIT Scientific Publishing

High-throughput real-time optical sensing and imaging instruments for capture and analysis of fast phenomena are among the most essential tools for scientific, industrial, military, and most importantly biomedical applications. The key challenge in these instruments is the fundamental trade-off between speed and sensitivity of the measurement system due to the limited signal energy collected in each measurement window. Based on two enabling technologies, namely photonic time-stretch dispersive Fourier transform and optical amplification, we developed several novel high-throughput optical measurement tools for applications such as flow cytometry, vibrometry, and volumetric scanning. We demonstrated optical Raman amplification at about 800 nm wavelength for the first time and extended time-stretch dispersive Fourier transform to this region of electromagnetic spectrum. We used this enabling technology to make an ultrafast three-dimensional laser scanner with about hundred thousand scans per second and an imaging vibrometer with nanometer-scale axial resolution. We also employed our high-speed laser scanner to perform label-free cell screening in flow. One of the fundamental challenges in cell analysis is the undesirable impact of cell labeling on cellular behavior. To eliminate the need for these labels, while keeping the cell classification accuracy high, additional label-free parameters such as precise measurement of the cell protein concentration is required. We introduced a high-accuracy label-free imaging flow cytometer based on simultaneous measurement of morphology and optical path length through the cell at flow speeds as high as a few meters per second. Finally, the ultimate challenge in ultra-high-throughput instrumentation is the storage and analysis of the torrent of generated data. As an example, our imaging flow cytometer generates about ten terabytes of cell images over a course of one hour acquisition, which captures images of every single cell in more than two milliliters of sample e.g. blood. We enabled practical use of these big data volumes by efficient combination of analog preprocessing techniques such as quadrature demodulation with parallel storage and digital post-processing.

Cilia Academic Press

Volume is indexed by Thomson Reuters CPCI-S (WoS). These proceedings comprise fully-refereed papers presented at the conference. The main conference theme was Mechanical and Aerospace Engineering, and the main goal of the event was to provide an international scientific forum for the exchange of new ideas in a number of fields and for in-depth discussions with peers from around the world. Core areas of mechanical and aerospace engineering are covered, together with multidisciplinary, interdisciplinary research and applications; thus making the work an excellent guide to those topics.

Methods in Cilia and Flagella Frontiers Media SA

Volume is indexed by Thomson Reuters CPCI-S (WoS). The present work presents up-to-date contributions to the field of mechanisms, mechanical transmissions, robotics and mechatronics. The topics covered are: kinematics, dynamics, analysis and synthesis, mechanical design, sensors and actuators, intelligent control systems and related applications in planar and spatial mechanisms and mechanical transmissions, biomechanics, serial and parallel robots, mobile robots, tele-operation, haptics, virtual reality and precision mechanics. The results reported here should be of interest to researchers, scientists, industrial experts, teachers and students in the fields of engineering as related to design, control and applications.

Scientific and Technical Aerospace Reports Springer Nature

What is Motion Blur Motion blur is the apparent streaking of moving objects in a photograph or a sequence of frames, such as a film or animation. It results when the image being recorded changes during the recording of a single exposure, due to rapid movement or long exposure. How you will benefit (I) Insights, and validations about the following topics: Chapter 1: Motion blur Chapter 2: Frame rate Chapter 3: Shutter speed Chapter 4: Bullet time Chapter 5: Go motion Chapter 6: Match moving Chapter 7: High-speed photography Chapter 8: Image stabilization Chapter 9: Display motion blur Chapter 10: Rolling shutter (II) Answering the public top questions about motion blur. (III) Real world examples for the usage of motion blur in many fields. Who this book is for Professionals, undergraduate and graduate students, enthusiasts, hobbyists, and those who want to go beyond basic knowledge or information for any kind of Motion Blur.

Multiple-wavelength Sources for Three-dimensional High-speed Imaging CRC Press

This open access book provides a comprehensive overview of the application of the newest laser and microscope/ophthalmoscope technology in the field of high resolution imaging in microscopy and ophthalmology. Starting by describing High-Resolution 3D Light Microscopy with STED and RESOLFT, the book goes on to cover retinal and anterior segment imaging and image-guided treatment and also discusses the development of adaptive optics in vision science and ophthalmology. Using an interdisciplinary approach, the reader will learn about the latest developments and most up to date technology in the field and how these translate to a medical setting. High Resolution Imaging in Microscopy and Ophthalmology – New Frontiers in Biomedical Optics has been written by leading experts in the field and offers insights on engineering, biology, and medicine, thus being a valuable addition for scientists, engineers, and clinicians with technical and medical interest who would like to understand the equipment, the applications and the medical/biological background. Lastly, this book is dedicated to the memory of Dr. Gerhard Zinser, co-founder of Heidelberg Engineering GmbH, a scientist, a husband, a brother, a colleague, and a friend.

The Photonics Directory Trans Tech Publications Ltd

This book provides in-depth explanations of design theories and methods for remote sensing satellites, as well as their practical applications. There have been significant advances in spacecraft remote sensing technologies over the past decade. As the latest edition of the book "Space Science and Technology Research," it draws on the authors' vast engineering experience in system design for remote sensing satellites and offers a valuable guide for all researchers, engineers and students who are interested in this area. Chiefly focusing on mission requirements analyses and system design, it also highlights a range of system design methods.

Optical Coherence Tomography (OCT) for High-speed Imaging and Therapy Control Springer Nature

Eine Schätzung des Fahrbahn­n­ä­se­grads unter­stützt Fahrer sowie Fahrzeug bei der Fahrzeug­führung. Diese Arbeit zeigt die Grundlagen für ein System, das durch Körperschallmessungen an verschiedenen Positionen des Fahrzeugs die Wasseraufwirbelung der Reifen erfasst und daraus auf einen Fahrbahn­n­ä­se­grad schließt. Ein auf diesem Prinzip aufgebautes System findet im Porsche 911, Typ 992, seinen Serien-Ersteinsatz. - An estimation of the road wetness level supports the driver as well as the vehicle to maneuver safely. This study presents the fundamentals of a system that uses structure-borne sound measurements at various positions on the vehicle to detect the water spraying up from the tires and uses this information to estimate the degree of road wetness. The system finds its first application in the Porsche 911, Type 992.

China Science & Technology Abstracts Springer

"Global electro-optic technology and markets." "Photonics technologies & solutions for technical professionals worldwide."

Breaking Through the Speed Barrier - Advancements in High-Speed Imaging Springer Nature

Understanding and being able to predict fluvial processes is one of the biggest challenges for hydraulics and environmental engineers, hydrologists and other scientists interested in preserving and restoring the diverse functions of rivers. The interactions among flow, turbulence, vegetation, macroinvertebrates and other organisms, as well as the transport and retention of particulate matter, have important consequences on the ecological health of rivers. Managing rivers in an ecologically friendly way is a major component of sustainable engineering design, maintenance and restoration of ecological habitats. To address these challenges, a major focus of River Flow 2016 was to highlight the latest advances in experimental, computational and theoretical approaches that can be used to deepen our understanding and capacity to predict flow and the associated fluid-driven ecological processes, anthropogenic influences, sediment transport and morphodynamic processes. River Flow 2016 was organized under the auspices of the Committee for Fluvial Hydraulics of the International Association for Hydro-Environment Engineering and Research (IAHR). Since its first edition in 2002, the River Flow conference series has become the

main international event focusing on river hydrodynamics, sediment transport, river engineering and restoration. Some of the highlights of the 8th International Conference on Fluvial Hydraulics were to focus on inter-disciplinary research involving, among others, ecological and biological aspects relevant to river flows and processes and to emphasize broader themes dealing with river sustainability. River Flow 2016 contains the contributions presented during the regular sessions covering the main conference themes and the special sessions focusing on specific hot topics of river flow research, and will be of interest to academics interested in hydraulics, hydrology and environmental engineering.

Robotics in Natural Settings One Billion Knowledgeable

This book includes recent research on climbing and walking robots. CLAWAR 2022 is the twenty-fifth International Conference Series on Climbing and Walking Robots and Mobile Machine Support Technologies. The conference is organized by CLAWAR Association in collaboration with the University of the Azores, S. Miguel, Portugal, during September 12-14, 2022. CLAWAR 2022 provides an updated state of the art on robotics and its use in a diversity of applications and/or simulation scenarios, within the framework "Robotics in Natural Settings". The topics covered include Bio-Inspired Robotics, Biped Locomotion, Educational Robotics, Human-Machine/Human-Robot Interaction, Innovative Actuators, Inspection, Legged Locomotion, Modeling and Simulation of CLAWAR, Outdoor and Field Robotics, Planning and Control, Wearable Devices and Assistive Robotics, and the Use of A.I. in Robotics. The intended readership includes participants of CLAWAR 2022 conference, international robotic researchers, scientists, and professors of related topics worldwide, and professors and students of postgraduate courses in Robotics and Automation, Control Engineering, Mechanical Engineering, and Mechatronics.

Ansaetze zur akustischen Optimierung von Reifen und Fahrbahnen fuer Elektrofahrzeuge unter Antriebsmoment

The Magnesium Technology Symposium, which takes place every year at the TMS Annual Meeting & Exhibition, is one of the largest yearly gatherings of magnesium specialists in the world. Papers are presented in all aspects of the field, ranging from primary production to applications to recycling. Moreover, papers explore everything from basic research findings to industrialization. Magnesium Technology 2011 covers a broad spectrum of current topics, including alloys and their properties; cast products and processing; wrought products and processing; forming, joining, and machining; corrosion and surface finishing; ecology; and structural applications. In addition, you'll find coverage of new and emerging applications in such areas as biomedicine and hydrogen storage.

Motion Blur

"Cameras face a fundamental tradeoff between spatial and temporal resolution. Digital still cameras can capture images with high spatial resolution, but most high-speed video cameras have relatively low spatial resolution. It is hard to overcome this tradeoff without incurring a significant increase in hardware costs. In this paper, we propose techniques for sampling, representing and reconstructing the space-time volume in order to overcome this tradeoff. Our approach has two important distinctions compared to previous works: (1) we achieve sparse representation of videos by learning an over-complete dictionary on video patches, and (2), we adhere to practical hardware constraints on sampling schemes imposed by architectures of current image sensors, which means that our sampling function can be implemented on CMOS image sensors with modified control units in the future. We evaluate components of our approach -- sampling function and sparse representation by comparing them to several existing approaches. We also implement a prototype imaging system with pixel-wise coded exposure control using a Liquid Crystal on Silicon (LCoS) device. System characteristics such as field of view, Modulation Transfer Function (MTF) are evaluated for our imaging system. Both simulations and experiments on a wide range of scenes show that our method can effectively reconstruct a video from a single coded image while maintaining high spatial resolution."--Abstract.

Satellite Remote Sensing Technologies**High Resolution Imaging in Microscopy and Ophthalmology****High-Speed Imaging and Optical Sensing Systems for Biomedical Applications**