

Wissenschaftliches Programm

Thursday, March 13, 2014

Biomedical Optics I		
Chair: Prof. Dr. R. Birngruber		
08:30	01	Improving the stability of an interferometrically based photoacoustic detection <i>A. Auner; Medizinisches Laserzentrum Lübeck</i>
08:45	02	Implementation of a reconstruction algorithm for Photoacoustic Tomography <i>M. Münter; Institut für Biomedizinische Optik</i>
09:00	03	Light transmission measurements through porcine eyes <i>J. Rehra; Medizinisches Laserzentrum Lübeck</i>
09:15	04	Parameter optimization for power controlled retinal photocoagulation <i>W. Schwarzer</i>

09:30	Coffee Break	
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Biomedical Optics II		
Chair: Dr. G. Hüttmann		
09:45	05	Solder modification for wound dressing fixation by laser radiation <i>N. Tödter; Institut für Biomedizinische Optik</i>
10:00	06	Imaging of heat and chemical burn affected skin ex vivo with coherent anti-stokes Raman (CARS) microscopy <i>J. Pruessner; Institut für Biomedizinische Optik</i>
10:15	07	Variable, computer-controlled attenuator for use in a time-gated optical scanning system <i>K. Fuchs; Institut für Biomedizinische Optik</i>
10:30	08	Development and validation of a measuring setup to determine the transmittance of the illumination system of endoscopes <i>C. Hain; Institut für Biomedizinische Optik</i>

Break and LUMEN Poster I		
10:55	49	Drug release from bone implants: a phenomenological modeling approach <i>J. Krieger</i>
10:58	50	Modeling diffusion of gentamicin eluted from a coated intramedullary nail <i>T. Klepsch</i>
11:01	51	Investigation of particle dynamics near the endothelial glycocalyx by multi focus FCS <i>L. Kreutzburg</i>
11:04	52	Holographic detection for non-contact Photoacoustic Tomography <i>C. Buj</i>
11:07	53	A physical model of perfused pulsating tissue compartments for the calibration of pulse oxymeters <i>B. Weber</i>

Biochemical Physics		
Chair: Dr. H. Paulsen		
11:15	09	Effect of substrate stiffness on photodynamic therapy sensitivity of various glioma cell lines in vitro <i>K. Scheffler; Institut für Biomedizinische Optik</i>
11:30	10	Photosensitizer delivery by liposomes <i>L. M. Nießen; Institut für Biomedizinische Optik</i>
11:45	11	Investigation of human skin permeability to zinc oxide nanoparticles formulated as sunscreen <i>S. Bugler; Institut für Biomedizinische Optik</i>
12:00	12	Measurement of concentrations of photoreactive liquids with high scattering using a differential polarimeter <i>R. Schmidt</i>
12:15	13	Metadynamics with PLUMED2 <i>R. Kuehn; Institut für Physik</i>

12:30	Lunch Break
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Biomedical Engineering I		
Chair: Prof. Dr. M. Ryschka		
13:30	14	Characterisation of pyroelectric detectors for the measurement of medical and safety-relevant gases <i>B. Redmer; Institut für Physik</i>
13:45	15	Design and implantation of a test bed to separate different drugs in multi-infusion system using gas bubbles <i>S. Abdul-Karim</i>
14:00	16	Flow Optimisation through Porous Ceramic Throttle <i>M. Ebner</i>
14:15	17	Compressive behavior and isotropy of short-fiber-filled epoxy cylinders as alternative test material for cortical bone <i>M. Schlitzke; Institut für Medizinische Informatik</i>
14:30	18	Construction of a Guide Wire Handle for the support of the operation of trochanteric hip fractures <i>S. E. Heinitz; Klinik für Chirurgie des Stütz- und Bewegungsapparates</i>
14:45	19	Evaluation of needle deformation during brachytherapy <i>P. Koch; Institut für Robotik und Kognitive Systeme</i>

Break and LUMEN Poster II		
15:10	54	Measuring the oxygen content of the cerebral efferent vessels <i>K. Rackebrandt</i>
15:13	55	Insight in Scanner Construction for a Dynamical Field Free Line for Magnetic Particle Imaging <i>M. Weber</i>
15:16	56	An approach for patient specific modeling of the aortic valve leaflets <i>J Hagenah</i>
15:19	57	Experimental Evaluation & Optimization of a UWB Localization System for Medical Applications <i>C. Bollmeyer</i>
15:22	58	A System for In-Ear Pulse Wave Measurements <i>S. Kaufmann</i>
Biomedical Engineering II Chair: Dr. A.-P. Schulz		
15:30	20	Practice of reprocessing medical single-use devices in Schleswig-Holstein <i>K. Köhler; Institut für Medizintechnik</i>
15:45	21	Software testing as an important component in the development of medical devices <i>D. Züwers; Institut für Signalverarbeitung</i>
16:00	22	Design Change of a Flow Sensor -Engineering Tests for System Integration- <i>A. K. Laarmann; Institut für Softwaretechnik und Programmiersprachen</i>
16:15	23	Construction and Optimization of a Bidirectional Transducer to Treat Hearing Loss <i>M. Angerer</i>
16:30	24	Design, Development and Comparison of two Different Measurement Devices for Time-Resolved Determination of Phase Shifts of Bioimpedances <i>R. Kusche</i>
16:45	25	A System for Multi-Modal Assessment of Cardiovascular Parameters - Design and Measurements <i>A. Malhotra</i>
19:00	Dinner	



Friday, March 14, 2014

Signal Processing		
Chair: Prof. Dr. A. Mertins		
08:30	26	Draft of a multichannel electromyography amplifier circuit with monopolar lead for hand prostheses control <i>N. Pfeiffer; Institut für Signalverarbeitung</i>
08:45	27	Overcoming electrodes shift variances in multi-channel surface EMG recordings for prosthetic controlling <i>T. Friedrich; Institut für Signalverarbeitung</i>
09:00	28	Coil Geometry Optimization and Implementation of a Field Generator for the Magnetic Particle Spectroscopy <i>T. Karisch; Institut für Medizintechnik</i>
09:15	29	Signal Chain Optimization in Magnetic Particle Imaging <i>A. Behrends; Institut für Medizintechnik</i>
09:30	30	Sparse Representation of Motion Fields using the Wavelet Transform <i>S. Bäcker; Institut für Signalverarbeitung</i>

09:45 **Coffee Break**

Imaging and Image Computing I		
Chair: Prof. Dr. T. M. Buzug		
10:00	31	Dictionary learning for sparse image representation with K-SVD algorithm <i>O. Kazankova; Institut für Signalverarbeitung</i>
10:15	32	VimbEye Exhibition Demo - an AVT machine vision camera application for eye-blink-detection <i>P. Klein; Institut für Medizinische Informatik</i>
10:30	33	Position Detection of a lying patient with Microsoft Kinect Sensor <i>Q. Ma</i>
10:45	34	3D imaging of a femur with a Kinect sensor and the 3D scanning software Kinect Fusion for the determination of coordinates of points in the CT scan of the femur with the software Amira <i>S. Ketelhut; Institut für Medizinische Informatik</i>
11:00	35	Evaluation of optical features for skin thickness compensated NIR triangulation <i>D. Hofmann</i>

11:15 **Coffee Break**

Imaging and Image Computing II		
Chair: Prof. Dr. M. Heinrich		
11:30	36	Towards Pulmonary Emboli Visualization in CTA Images Using Streamline Variance Analysis <i>N. Leßmann; Institut für Medizinische Informatik</i>
11:45	37	Evaluation of Methods for Automatic Fish Segmentation <i>A. Hänler; Institut für Signalverarbeitung</i>
12:00	38	An Algorithm for Automated Model Generation of in Vitro Cell Images <i>F. Kaiser; Institut für Neuro- und Bioinformatik</i>
12:15	39	Subtraction Imaging on Double Inversion Recovery Images for Cortical Lesion Detection in Patients with Multiple Sclerosis <i>C. Winter; Institut für Neuro- und Bioinformatik</i>

12:30 Lunch Break

Magnetic Resonance Imaging I		
Chair: Prof. Dr. M. Koch		
13:30	40	Development and Validation of a Tool for Pulse Wave Velocity Measurements in MRI Phase Contrast Data <i>A Timmermeyer; Institut für Medizintechnik</i>
13:45	41	Automatic Image Quality Assessment of Head MRI Study Data <i>D. Hoinkiss; Institut für Medizintechnik</i>
14:00	42	Chasing the Zebra. The Quest for the Origin of a Stripe Artifact in Diffusion-Weighted MRI <i>M. Meyer; Institut für Medizintechnik</i>
14:15	43	Sparse MRI for motion correction <i>H. Lüthje; Institut für Signalverarbeitung</i>
14:30	44	Visualizing Microscopic Hemorrhages with Susceptibility-Weighted Imaging for Forensic Applications <i>A. Biber; Institut für Medizintechnik</i>

14:45 Coffee Break

Magnetic Resonance Imaging II		
Chair: Prof. Dr. T. M. Buzug		
15:15	45	Connection between structural and functional Connectivity: A Magnetic Resonance Study <i>J. Cieluch; Institut für Medizinische Informatik</i>
15:30	46	Generation of an Accurate Tetrahedral Model of a Brain with Chronic Stroke Lesions for TMS and tDCS field calculations <i>S. Minjoli; Institut für Medizintechnik</i>
15:45	47	GABA quantification at 7 T - In vivo application of MEGA-PRESS in mice <i>A Niebergall; Institut für Medizintechnik</i>
16:00	48	Radiosurgery beyond cancer: Real-time tracking and treatment planning for non-invasive treatment of cardiac arrhythmia <i>S. Ipsen; Institut für Robotik und Kognitive Systeme</i>

16:15 Coffee Break

16:45 Preisverleihung, Zusammenfassung, Verabschiedung