Scientific Program
Tuesday March 7, 2017

Time	No.	Presenter	Title
8:30			Registration
9:30			Welcome
			Pitch-Session 1
9:50	19	F. Kanter	Classification of Solitary Pulmonary Nodules using Deep Learning Networks
9:52	69	H. Uzunova	Groupwise Affine Registration of Medical Images with Missing Correspondences
9:54	10	M. Eulers	Influence of patient motion on the depiction of microcalcifications in digital tomosynthesis
9:56	40	V. Semrau	Development of a verification technique for Automatic Intra-operative SpineMask™ Registration (AIM) Fallback workflow
9:58	46	G. C. Teeuwsen	Development of data interfaces for opthalmologic devices
10:00	24	R. Kutlu	Extension of a medical engineering laboratory course in consideration of the research environment at HAWK and UMG
10:02	44	J. Stubbe	Advancement of a sensor-system simulation for sleep therapy and ventilation test benches
10:04	15	D. Heinrich	Damage thresholds of retinal pigment epithelium (RPE) cells by laser irradiation (527 nm) in the microsecond time domain
10:06	04	T. Blömker	Supercontinuum Generation with Sub-Nanosecond Pulses for Stimulated Raman Scattering Microscopy
10:08	05	L. Coskun	System Testing on a Medical Software – A conception for the procedure –
10:10	55	S. Baumhof	Standardisation of Surgical Terms for the Extension of the ISO/IEEE 11073-1010X Nomenclature
10:12	71	M. Constapel	A syntactic approach to wreck pattern recognition in sonar images
10:14	66	K. L. Soika	Simulated Monochromatic X-ray Images by Forward Projection Utilizing the Lambert-Beer Law
10:16	33	S. Rettmer	Development of a Ball-Balancing Robot platform
10:18	42	T. R. Stilla	Investigation of the correlation between the natural moisturizing factor and non-invasive parameters of the skin barrier function in vivo
10:20			Poster-Session 1
10:30			Coffee Break
			Pitch-Session 2
10:40	21	R. Kaya	Concepts for a process-safe application of a micro-precipitation method
10:42	67	I. Stechmann	Structure the Noise! Machine Learning for Alarm Diagnosis
10:44	53	M. Baake	Creating Reports with BIRT to support the Development Process of Medical Software
10:46	20	J. Kappel	Development of a stopped-flow apparatus for rapid mixing of small fluid volumes in reaction kinetic studies
10:48	31	K. Müller	Discriminating breast microcalcifications with MARS
10:50	11	A. Flamminger	Price-performance optimized hardware for molecular simulations
10:52	32	A. Pfahl	Development of concepts for high quality image reconstruction based on adaptive grid sizes
10:54	01	B. Andersen	Evaluation of filter-combinations within a DNA-Quant-Module for Next Generation Sequencing
10:56	48	M. vom Endt	Optimization of a multi-wavelength stimulation unit for functional in-vivo full-field swept-source optical coherence tomography
10:58	06	A. Crezelius	Characterization of structural properties of bacterial membranes with atomic force microscopy
11:00	26	N. Ludolph	How Antimicrobial Peptides Interact with Model Membranes and Affect the Lipid Mobility – a FRAP-based Approach –
11:02	18	S. Kaminsky	Automatic left ventricle segmentation on axial cine cardiac MR Imaging – Phase 1 –
11:04	27	C. Malich	Light-Induced Permeabiliziation of Liposomes
11:06	59	T. Jahner	Compressing Vector Fields by Using K-SVD
11:08	58	S. Grosnick	A Neural Network for Single-Channel EEG Prediction and Encoding of Attention Selection
11:10			Poster-Session 2
11:20			Coffee Break

			Pitch-Session 3
11:30	47	J. Tesche	Nav-CARS-EVAR: Comparison of patient individual vessel anatomies with an abdominal aortic aneurysm to their corresponding rapid prototyping printed 3D-models
11:32	39	L. Schulz	Endoscopic Suction – Evaluation and Comparison of Specialized Pump Technologies –
11:34	45	R. Tauscher	Design and Implementation of a Rigid Endoscope for Optical Coherence Tomography (OCT)
11:36	08	T. Eixmann	Components towards fiber based Raman microspectroscopy
11:38	70	N. Vogt	Deep learning for spinal centerline extraction
11:40	50	T. Wenzel	Characterization of nanofluidics devices for high-throughput single-molecule fluorescence detection
11:42	23	J. Kühne	Development of a surface electromyography-based mechanical ventilation procedure
11:44	65	J. Niemeijer	A Review of Neural Network based Semantic Segmentation for Scene Understanding in Context of the self driving Car
11:46	62	K. D. Lux-Hoffmann	The Schatten-p-Norm as a Distance Measure for Image Registration
11:48	12	T. Gano	An Improved Procedure for Automated Testing of Dialysis Machines
11:50	22	J. Klee	Dispersion Compensation for Fourier-Domain Mode-Locked Lasers
11:52	30	N. Meyer-Schell	Development and Optical Simulation of a Needle Endoscope for Optical Coherence Tomography to visualize Adipocyte Cells during Coolsculpting
11:54	57	A. Essenwanger	An Image Annotation Tool for the Preparation of Object Detection and Automatic Segmentation in Thermal Images
11:56	29	J. Mertens	Characterization of the interaction between the antimicrobial peptide LL-32 and a lipid monolayer using a film balance
11:58	37	K. Schmidtke	Automated cavity-length optimization of a passively Q-switched microchip-laser by a piezo actuator control
12:00			Poster-Session 3
12:10			Group Pictures
12:30			Company Luncheon
			Pitch-Session 4
13:30	17	A. Ibbeken	Development of a ball balancing robot – Modularity and control concept –
13:32	52	J. Abeler	MEDEAS – Development of an Medical Device Development Assistance System
13:34	14	S. Hagen	Determination of quality and strength of animal pericardium – Development of an optical device –
13:36	07	F. Dietzel	Evaluation and comparison of two different types of motor control for BiPAP and CPAP mode in non-invasive mechanical ventilation
13:38	16	T. Hinz	Construction of an Elastic-Motion Phantom for MRI
13:40	03	J. Bienzeisler	A SpIDA-derived method to analyse the *in vivo* $GABA_B$ receptor relocalization and oligomerization in chronic pain conditions
13:42	02	E. Beck	Decreasing progressive myopia by Rose Bengal mediated crosslinking of the sclera
13:44	35	F. Rubin-Schwarz	Determination of intradialytic electrolyte shifts in dialyzers
13:46	63	J.-H. Mathes	Replicating and Synchronising a Medical Database in an Object Relational Mapping Context
13:48	36	M. Sasse	Development of a variable gradiometer coil to determine the thermal properties of magnetic nanoparticles
13:50			Poster-Session 4
14:00			Company Presentation 1
14:10			Company Presentation 2
14:20			Coffee-Break

			Pitch-Session 5
14:40	28	M. Mecking	Failure detection of X-ray tubes for medical devices – a case study –
14:42	43	P. Strenge	Developing a Calibrated Setup to Investigate markerless Multi-View Reconstruction of Freely Moving Rodents
14:44	09	M. Engler	Strengthening the cornea post-LASIK using Rose Bengal mediated crosslinking
14:46	41	M. L. Severin	Tests with a new optical sensor for hematocrit and oxygen saturation at extracorporeal life support systems
14:48	68	R. Süs	Pipeline Insertion Sort on an FPGA – Special hardware for special solutions –
14:50	49	J. Weiler	Design and implementation of a gel documentation system for multi-wavelength fluorescence detection for Biosafety Level S2 laboratories
14:52	60	C. Kamann	Linked Data Applications through Ontology Based Data Access in Clinical Research
14:54	51	F. Zell	Propagation of landmarks with a registration graph
14:56			Poster-Session 5
15:06			Company Presentation 3
15:16			Company Presentation 4
15:26			Coffee-Break
			Pitch-Session 6
15:46	61	D. Labitzke	A framework for testing the compatibility of medical devices with new communication standards of the ISO/IEEE 11073 family
15:48	34	O. Rost	Object tracking for accurate irritation-free 3D shape measurements of human faces and body parts
15:50	13	E. Hachgenei	Design and implementation of a noise reducing filter solution for biosignals derived from phonocardiography and beat-to-beat finger plethysmography
15:52	54	C. Baumgart	A Comparison of RIDE and ICA for the Decomposition of ERPs in EEG-data
15:54	56	N. Broeker	Joint registration and segmentation using statistical shape models
15:56	38	L. Schulz	Registration of thermographic Images and three dimensional Point Clouds
15:58	72	T. Kirchmann	Evaluation of Bluetooth Positioning for Medical Device Tracking
16:00	25	T. Kutscher	A design to adapt a bleaching laser to a research microscope – An easy hardware extension to perform FRAP/FRED/photoswitching –
16:02			Poster-Session 6
16:12			Meet the Companies
17:00			Get-Together