Studierendentagung Lübeck 2016

BioMedTec Wissenschaftscampus

Scientific Program

Friday, March 11, 2016

		Signal Processing Chair: Dr. Thomas Friedrich
08:00	32	Memory Performance of Spiking Neural Networks – How to Store and Retrieve Information – *S. Holtorf, A. Sinha, N. Davey, V. Steuber, and C. Metzner*
08:12	33	Identifying an Oxygenation Model from FiO2-SpO2 Relations in Ventilated Patients *J. Beuke, L. Kahl, D. Schädler, T. Becher, N. Weiler, and P. Rostalski*
08:24	34	Detection of Joint Diseases in Horses through Classification of Vibroarthrography Signals using Mel Frequency Cepstral Coefficients *P. Bedei, A. Moeller, and A. Mertins*
08:36	35	Movement identification based on exoskeleton sensor data for event marking of the electroencephalogram *N. Eckardt, M. Tabie, A. Seeland, E. Kirchner, and P. Rostalski*
08:48	36	Acquisition of respiratory signals and generation of visual realtime biofeedback using structured IR light surface scanning *E. Mücke, R. Werner, M. Wilms, H. Handels, and T. Gauer*

09:00		Coffee Break

		Medical Imaging Chair: Prof. Dr. Thorsten Buzug
09:15	37	Impact of Different Breathing Analysis Techniques on Body-surface Indexed Respiratory-Related Stroke Volumes *M. Wattenberg, H. Körperich, P. Barth, and K.T. Laser*
09:27	38	Investigation of the suitability of a commercial 3D camera for observation of the surgical field *A. Kleinfeld and N. Linz*
09:39	39	Phantom Design for a High Resolution Field Free Line MPI Scanner *F. Matysiak, M. Weber, S. Bruns, A. von Gladiß, and T. M. Buzug*
09:51	40	Sensitivity of Magnetic Particle Imaging Compared with 19F Magnetic Resonance Imaging – Preliminary MPI Results – *S. Bruns, F. G. Heslinga, D. W. Hensley, P. Keselman, M. Weber, E. Yu, B. Zheng, X. Y. Zhou, P. W. Goodwill, S. M. Conolly, and T. M. Buzug*
10:03	41	GATE based Monte Carlo Simulation of Planar Scintigraphy using the XCAT Phantom *R. Schäfer, M. Schaar, and M. Rafecas*
10:15	42	3D printed NEMA NU 4-2008 phantom for small animal PET: a comparison study using different modalities *M. Grehn, J. Kurth, J. Stenzel, and M. Rafecas*
10:27	43	A PET/MR Rat Brain Atlas for Automated Time Activity Curve Extraction *K. Kläser, G. Cowin, A. Janke, G. Angelis, K. Mardon, A. Kyme, J. Gillam, R. Fulton, S. Meikle, and W. Ryder*

10:39		Coffee Break

		Image Processing I Chair: Prof. Dr. Heinz Handels
10:54	44	Evaluation of medical image registration algorithms on pulmonary inhale and exhale CT scans *M. Schumacher, T. Klinder, A. Schmidt-Richberg, S. Kabus, and M. Heinrich*
11:06	45	Myocardial Strain Measurement – A Registrational Method with Block Matching Approach – *L. Landwehr, C. Bouwman, J.P. Aben, F.W. Prinzen, and M.P. Heinrich*
11:18	46	Image processing of pulmonary radiography of pediatric patients to assess tuberculosis or pneumonia for the application in diagnosis in low- and middle-income countries *I. Nehrhoff, S. Rodríguez López, J.E. Ortuño, O. Maier, M.J. Ledesma-Carbayo, and H. Handels*

Studierendentagung Lübeck 2016

BioMedTec Wissenschaftscampus

Scientific Program

Friday, March 11, 2016

		Image Processing I Chair: Prof. Dr. Heinz Handels
11:30	47	Automatic Orientation Detection of Hand Structures in Digital X-Ray Images *I. M. Baltruschat, M. Hensel, and M. P. Heinrich*
11:42	48	Denoising spectral CT images using parallel level sets *J. Krooß, B. Brendel, T. Köhler, and M. Heinrich*
11:54	49	Using Convolutional Neural Networks for Cut Line Detection in Medical Images *T. Langner and T. Käster*
12:06		Lunch Break
		Image Processing II Chair: Prof. Dr. Martin Koch
13:06	50	Detection of Non-rigid Motion, while Conducting a Static 3D Scene Reconstruction in Realtime *S. Löw, S. Klement, D. Münster, and E. Barth*
13:18	51	Comparison of Frequency Selection Methods for Image Reconstruction in Magnetic Particle Imaging – Improving Image Quality – *Y. Blancke Soares, A. von Gladiß, M. Ahlborg, K. Gräfe, and T. M. Buzug*
13:30	52	Comparing Different Compressed Sensing Reconstruction Techniques for the System Matrix in Single-Sided MPI *P. Weissert, A. von Gladiß, and T. M. Buzug*
13:42	53	Reconstruction of Connected Structures in Magnetic Particle Imaging using Markov Random Field based Regularization C. Kowalski, M. Maaß, and A. Mertins
13:54	54	Tikhonov regularization scheme for image reconstruction in the presence of model errors *J. Mrongowius, J. Frikel, and C. Kaethner*
14:06		Coffee Break
		Image Processing III Chair: Prof. Dr. Mattias Heinrich
14:21	55	Model-based Respiratory Motion Compensation in MRI-guided Radiotherapy I.Y. Ha, M. Wilms, and M. P. Heinrich
14:33	56	Phase-Based Motion Processing K. Kreft and A. Mertins
14:45	57	Parallelization of Motion Correction Algorithms for Multi-Band fMRI Data *E. Franke, N. Scheel, and A. Madany Mamlouk*
14:57	58	Design of a Motion Phantom for Magnetic Resonance Imaging *M. Schmiedel, A. Möller, M. A. Koch, and A. Mertins*
15:09	59	SliceTracker: An open-source platform for prostate motion tracking during in-bore targeted MRI-guided biopsy *P. A. Behringer, C. Herz, T. Penzkofer, K. Tuncali, C. M. Tempany, and A. Fedorov*
15:21		Coffee Break
15:31		Kurzpräsentation Poster 1-5
15:51		Preisverleihung, Zusammenfassung , Verabschiedung