IFMIA 2011

International Forum on Medical Imaging in Asia 2011



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Hsiu-Po Wang (National Taiwan Univ. Hospital, Taiwan)

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Forum At-a-Glance

January	18	
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bandary 10		
9:45-9:55	Opening	
9:55-10:45	Oral Session 1: CAD 1	
10:45-11:45	Oral Sessing 2: Imaging 1	
11:45-13:00	Lunch break	
13:00-13:30	Special Session 1: Invited talks from Japan	
13:30-14:10	Oral Session 3: Display, Image Quality, and Medical Informatics	
14:10-14:50	Oral Session 4: Image Analysis 1	
15:00-16:00	Poster Session 1 & Coffee	
16:00-16:30	Special Session 2: Invited talks from China	
16:30-17:00	Oral Session 5: CAD 2	
17:00-17:40	Oral Session 6: CAS	
18:00-20:00	Reception (Tenbusu Hall)	

January 19

9:15-10:15	Oral Session 7: Imaging 2
10:15-11:15	Poster Session 2 & Coffee
11:15-11:55	Oral Session 8: Image Analysis 2
11:55-13:00	Lunch break
13:00-13:50	Oral Session 9: Imaging 3
13:50-14:40	Oral Session 10: CAD 3
14:40-15:00	Award Ceremony & Break
15:00-16:00	Special Session 3: Invited talks from Taiwan & Korea
16:00-18:00	IEICE-JAMIT-MII-SPSTJ Domestic conference

January 20

All day	IEICE-JAMIT-MII-SPSTJ Domestic conference

Special Session

January 18, 13:00-13:30

Special Session 1: Invited talks from Japan

Chair: Naozo Sugimoto (Kyoto University, Japan)

S1-1

Reconstruction Algorithm of Refraction-Based Computed Tomography from Viewpoint of X-Ray Optics

Tetsuya Yuasa (Yamagata University, Japan)

S1-2

3D Medical Image Processing Algorithm Competition in Japan

Akinobu Shimizu (Tokyo University of Agriculture and Technology, Japan)

January 18, 16:00-16:30

Special Session 2: Invited talks from China

Chair: Hiroshi Fujita (Gifu University, Japan)

S2-1

Plasticity in early blind revealed by multi-modality MRI

Chunshui Yu (Tianjin Medical University, China)

S2-2

Pattern analysis of neuroimages for quantitative diagnosis of neurological diseases

Yong Fan (Institute of Automation, the Chinese Academy of Sciences)

January 19, 15:00-16:00

Special Session 3: Invited talks from Taiwan & Korea

Chairs: San-Kan Lee (Taichung Veterans General Hospital, Taiwan)

Gyuseong Cho (KAIST, Korea)

S3-1

A Novel Method to Improve Image Quality for Small Animal PET using Artificial Neural Networks

Jyh-Cheng Chen (National Yang-Ming University, Taiwan)

S3-2

High performance medical imaging system development

Jong Beom Ra (KAIST, Korea)

Oral session

January 18, 9:55-10:45

Oral Session 1: CAD 1

Chairs: Yong Fan (The Chinese Academy of Sciences)

Shoji Kido (Yamaguchi University, Japan)

01-1

Iterative Cross-correlation Analysis of Resting State Brain Networks

Liqin Yang, Fuchun Lin, Wenju Pan and Hao Lei (Chinese Academy of Sciences)

01-2

Study of order-made diagnostics system for voiding dysfunction

Takuro Ishii, Gaku Sakuyama and Tatsuo Igarashi (Chiba University)

01-3

Medical image diagnosis of liver cancer by revised GMDH-type neural network using knowledge base

Tadashi Kondo, Junji Ueno and Shoichiro Takao (The University of Tokushima)

01-4

Temporal and Spatial Responses of Biomolecular Markers in Tumor Tissues

Chi-Gung Huang, Cheng-Ying Chou, Chia-Ying Wu, Kuo-Wei Lu, Han-Wen Liu (National Taiwan University), Tzyy-Leng Horng (Feng Chia University) and Win-Li Lin (National Taiwan University)

01-5

Automated detection and comparison methods for lesions by using statistical model on torso FDG-PET scans

Tomoya Asai, Tokifumi Suzuki, Takeshi Hara, Tatunori Kobayashi, Xiangrong Zhou (Gifu University), Satoshi Ito (Daiyukai General Hospital), Tetsuro Katafuchi (Gifu University of Medical Science) and Hiroshi Fujita (Gifu University)

January 18, 10:45-11:45

Oral Session 2: Imaging 1

Chairs: Soo Yeol Lee (Kyung Hee University, Korea)

Takashi Obi (Tokyo Institute of Technology, Japan)

 Ω_{2-1}

Withdrawn

02-2

High-sensitivity and high-contrast imaging of biological soft tissues by X-ray phase contrast micro-tomography

Masato Hoshino, Kentaro Uesugi (Japan Synchrotron Radiation Research Institute), Hiroshi Onodera (Nishitaga National Hospital and JST-CREST) and Naoto Yagi (Japan Synchrotron Radiation Research Institute)

02-3

Phase Reconstruction by Tomosynthesis with an X-ray Talbot Interferometer Sebastien Harasse, Margie Olbinado, Wataru Yashiro and Atsushi Momose (University of Tokyo)

02-4

2-Dimensional and 3-Dimensional View of Breast Cancer Using Dark-Field Imaging

Masami Ando (Tokyo University of Science)

02-5

Fully 3D Iterative Scatter-Corrected OSEM for High-Resolution Research Tomograph PET using GPU

Kyungsang Kim and Jongchul Ye (KAIST)

O2-6

Carbon nanotube-emitter for X-ray gerneration

Je Hwang Ryu, Sung Ho Park, Il Sung Cho, Kyung Bok Jung, An Na Ha, Kyu Chang Park (Kyung Hee University), Ki Sub Byeon, Byung Kwon Ju (Korea University) and Hun Kuk Park (Kyung Hee University)

02-7

Comparison of strict thickness fixation and image blurring in dual-energy mammography

Seok-Min Han, Dong-Goo Kang, Young-Hun Sung and Seong-Deok Lee (Samsung Advanced Institute of Technology)

January 18, 13:30-14:10

Oral Session 3: Display, Image Quality, and Medical Informatics

Chairs: Jong Hyo Kim (Seoul National University, Korea)

Ryo Haraguchi (National Cerebral and Cardiovascular Center, Japan)

O3-1

Withdrawn

O3-2

Image Improvement of Scintigram with Parametric Extended DOG Function Kyohei Shimasaki, Hisakazu Ogura, Jousuke Kuroiwa, Tomohiro Odaka, Haruhiko Shirai and Izumi Suwa (Fukui University)

O3-3

Healthcare Information System and Comprehensive Geriatric Assessment Nai-Wen Kuo (Chinese Culture University)

03-4

Can a nursing information system increase providers' adherence to the guideline of AMI risk factor management?: A retrospective study

Huei-Chin Yang (Chang Gung Memorial Hospital), Sophie Huey-Ming Guo (Chang Gung University), Lun-Hui Ho (Chang Gung Memorial Hospital) and Her-Kun Chang (Chang Gung University)

O3-5

Telemedicine System Development for nasopharyngeal carcinoma diagnosis and treatment

Panrasee Ritthipravat, Weerayuth Chanapai and Orrawan Kumdee (Mahidol University)

January 18, 14:10-14:50

Oral Session 4: Image Analysis 1

Chairs: Hsuan Ting Chang (National Yunlin Univ. of Science and Technology, Taiwan)
Yoshiki Kawata (Tokushima University, Japan)

O4-1

Automated mammographic density estimation by using statistical and gradient information with region-based level set method

Youngwoo Kim (Seoul National University), Myung-Eun Lee (Chonnam National University) and Jong Hyo Kim (Seoul National University)

04-2

Automatic segmentation of lower extremity vessel and calcification in CT angiography

Soo Kyung Kim (Infinitt Co. Ltd.), Helen Hong (Seoul Women's University), Jin Wook Chung and Yeong Ho Yoon (Seoul National University Hospital)

04-3

Using bilateral filter to remove vascular network in colonoscopy images

Hsuan T. Chang, Yu-Shan Lin (National Yunlin University of Science and Technology), Tsung-Chun Lee (National Taiwan University Hospital and College of Medicine), Syu-Jyun Peng (National Central University) and Chung-Wen Hung (National Yunlin University of Science and Technology)

04-4

Withdrawn

04-5

Multi-Organ Statistical Models and their application to abdominal CT images

Elco Oost, Akinobu Shimizu, Hidefumi Kobatake (Tokyo University of Agriculture and Technology) and Shigeru Nawano (International University of Health and Welfare Mita)

January 18, 16:30-17:00

Oral Session 5: CAD 2

Chairs: Chunshui Yu (Tianjin Medical University, China) Hotaka Takizawa (Tsukuba University, Japan)

O5-1

Withdrawn

O5-2

Liver Cancer Identification Base on ACO- AdaBoost-SVM model

Huiyan Jiang, Fengzhen Tang, Xiangying Liu (Northeastern University) and Wenhan Wang (Liaoning Technical University)

O5-3

Construction of distribution models of pulmonary blood vessels from CT scans and its application to the model-matching method for FP reduction

Shiqeyuki Ishii, Hotaka Takizawa (University of Tsukuba)

05-4

Detection of metastatic liver tumors from 3D CT images based on intensity values and local intensity structure analysis

Yoshitaka Sakamoto, Masahiro Oda (Nagoya University), Takayuki Kitasaka (Aichi institute of Technology), Shigeru Nawano (Mita Hospital, Int'l Univ. of Health and Welfare) and Kensaku Mori (Nagoya University)

January 18, 17:00-17:40

Oral Session 6: CAS

Chairs: Helen Hong (Seoul Women's University, Korea)
Toshiya Nakaguchi (Chiba University, Japan)

06-1

Numerical simulation of respiratory function for pulmonary lobectomy

Yasushi Hirano, Rui Xu, Shoji Kido, Xian Chen (Yamaguchi University) and Katsuya Ishii (Nagoya University)

06-2

Zero-crossing-tracking technique for temperature estimation during focused ultrasound therapy

Kuen-Cheng Ju (I-Shou University, Taiwan), Hao-Li Liu (Chang-Gung University, Taiwan) and Tzu-Ching Shih (China Medical University, Taiwan)

06-3

Proposal of overlap display system for laparoscopic surgery guiding

Satoki Zenbutsu (Chiba University) and Tadashi Yamaguchi (Chiba University)

06-4

Development of laparoscopic surgery planning system and its evaluation based on surgery

Masahiro Oda, Masakazu Kito (Nagoya University), Takayuki Kitasaka (Aichi Institute of Technology), Chie Tanaka (Nagoya University), Kazunari Misawa (Aichi Cancer Center). Michitaka Fuiiwara and Kensaku Mori (Nagoya University)

January 19, 9:15-10:15

Oral Session 7: Imaging 2

Chairs: Cheng-Ying Chou (National Taiwan University)

Yuichi Kimura (National Institute of Radiological Sciences, Japan)

07-1

Determining a geometry of a dental x-ray system required for a pseudo three dimensional display of panoramic images

Takeru Yamada, Koichi Ogawa (Hosei university), Hideyuki Nagaoka and Tsutomu Yamakawa (TELESYSTEMS Corporation)

07-2

TV-penalized CT image reconstruction for respiratory motion artifact reduction in small animal imaging

Hye Sun Kim, Jie Gao, Min Hyoung Cho and Soo Yeol Lee (Kyung Hee University) O7-3

Motion Correction for MRI with Three Dimensional Data Acquisition

Atsushi Tachibana (Tokyo Metropolitan University), Takeyuki Hashimoto (Yokohama Soei College) and Hiroyuki Shinohara (Tokyo Metropolitan University)

07-4

The analysis of q-space displacement images by development MR q-space sequences

Kazuo Yagi (Tokyo Metropolitan University)

07-5

Statistical reconstruction for digital breast tomosynthesis using Dual formulation of Total variation minimization

Kwang Eun Jang, Kangeui Lee, Jongha Lee and Younghun Sung (SAIT) O7-6

An Improvement of Spatio-Temporal Reconstruction Method Based on DRAMA with Time-Dependent Subsets

Tatsuya Kon, Takashi Obi (Tokyo Institute of Technology), Hideaki Tashima (National Institute of Radiological Sciences), Masahiro Yamaguchi and Nagaaki Ohyama (Tokyo Institute of Technology)

January 19, 11:15-11:55

Oral Session 8: Image Analysis 2

Chairs: Namkug Kim (University of Ulsan College of Medicine, Korea)
Mikio Suga (Chiba University, Japan)

O8-1

Deformable lung registration using active cells and combined gradient force

Yeny Yim (George Washington University), Julip Jung and Helen Hong (Seoul Women's University)

O8-2

A new method for finding the loss core point of a fingerprint image Somsak Choomchuay (KMITL)

O8-3

Quasi-4DCT Images based on Lung Deformation Simulation Considering Rib Kinematics

Hirotaka Ito, Seiichi Koshizuka, Ryosaku Shino (The University of Tokyo), Akihiro Haga, Tsuyoshi Onoe and Keiichi Nakagawa (The University of Tokyo Hospital)

Dental Identification based on Teeth and Dental Works Matching for Bitewing Radiographs

Phen-Lan Lin (Providence University), Yan-Hao Lai (National Chung Hsing University) and Chun-Hung Kuo (Providence University)

January 19, 13:00-13:50

Oral Session 9: Imaging 3

Chairs: Jong Chul Ye (KAIST, Korea)

Tetsuya Yuasa (Yamagata University, Japan)

O9-1

An evaluation of 3D image reconstruction based on the limited angle back-projection algorithm for Compton camera

Yoshiro Muraji, Takashi Obi, Masahiro Yamaguchi and Nagaaki Ohyama (Tokyo Institute of Technology)

09-2

GPU-based image reconstruction method including geometrical detector response functions for OpenPET

Shoko Kinouchi (Chiba University / National Institute of Radiological Sciences), Taiga Yamaya, Eiji Yoshida, Hideaki Tashima (National Institute of Radiological Sciences), Hiroyuki Kudo (Tsukuba University) and Mikio Suga (Chiba University)

O9-3

Accelerating Helical Cone-Beam Computed Tomography Image Reconstruction Using CUDA

Yi-Yan Chuo, Weichung Wang and Cheng-Ying Chou (National Taiwan University)
O9-4

Image reconstruction of dual-head PET Scanner by using numerically computed system response matrix

Yu-Jiun Kao (National Taiwan University), Yun Dong (Illinois Institute of Technology), Chien-Min Kao, Chin-Tu Chen (The University of Chicago), Weichung Wang and Cheng-Ying Chou (National Taiwan University)

O9-5

MRI Resolutions Effect on Trabecular Bone Parameters for Determination of Clinically Acceptable Resolution: In-vitro Study

Namkug Kim (University of Ulsan College of Medicine), June-Goo Lee (Seoul National University), Hengjun J Kim (Korea Basic Science Institute), Jin Sup Yeom (Seoul National University) and Gyunggoo Cho (Korea Basic Science Institute)

January 19, 13:50-14:40 Oral Session 10: CAD 3

Chairs: Panrasee Ritthipravat (Mahidol University, Thailand) Hidetaka Arimura (Kyushu University, Japan)

O10-1

Computer-aided diagnosis in ultrasound thickness of peritoneum is highly correlated with physician's manual measurement in peritoneal dialysis patients Syu Jyun Peng (National Central University), Tsung Chun Lee, Jenq Wen Wen (National Taiwan University), Hsuan Ting Chang (National Yunlin University of Science and Technology) and Jang Zern Tsai (National Central University)

010-2

Regional Context-sensitive Support Vector Machine Classifier to Improve Automated Identification of Regional Pattern of Diffuse Interstitial Lung Disease Jonghyuck Lim (Seoul National University), Namkug Kim, Joon Beom Seo, Young Kyung Lee (University of Ulsan), Youngjoo Lee and Suk-Ho Kang (Seoul National University)

O10-3

Automatic Classification of Regional Disease Pattern of Diffuse Lung Disease at HRCT: Cross-Vendor Study

Namkug Kim, Jeongjin Lee, Joon Beom Seo and Eun Jin Chae (University of Ulsan College of Medicine)

O10-4

Vascularization evaluation for breast tumors in 3D high-definition flow Doppler sonography

Yi-Ping Lien (Department of Computer Science), Rar-Ren Chen (Department of Surgery, Changhua Christian Hospital) and Yu-Len Huang (Department of Computer Science)

O10-5

Multifarious Pharmacokinetic Modeling Techniques for Prostate Cancer Localization with DCE-MRI

Sang Ho Lee, Jong Hyo Kim, Jeong Yeon Cho and Seung Hyup Kim (Seoul National University)

Poster session

January 18, 15:00-16:00

Poster Session 1

CAD

P1-1

Fast and efficient lung disease classification using hierarchical one-against-all support vector machine and cost-sensitive feature selection

Jonghyuck Lim, Yooungjoo Lee (Seoul National University), Namkug Kim, Joon Beom Seo and Young Kyung Lee (University of Ulsan)

P1-2

Correlation of Perfusion Parameters on Dynamic Contrast Enhanced MRI (DCE-MRI) with Histopathologic Prognostic Factors of Primary Breast Cancers Hye Ryoung Koo, Nariya Cho, Woo Kyung Moon, Jung Min Chang, Ann Yi and In Chan Song (Seoul National University Hospital)

P1-3

Statistical analysis of early CT sign in acute cerebral infarction on brain X-ray CT images

Kazuki Oshima, Takeshi Hara, Xiangrong Zhou (Gifu University), Keiji Sakashita (Senshu Critical Care Medical Center), Chisako Muramatsu and Hiroshi Fujita (Gifu University)

P1-4

Evaluation of Inter-scan Repeatability in Emphysema Quantification during Follow-up in a Lung Cancer Screening Setting

Sang Joon Park, Chang Yong Heo and Jong Hyo Kim (Seoul National University)
P1-5

The time-series analysis of volumetric change in brain regions by using MRI Mika Tanaka, Ayaka Tarusawa, Mitsuyo Nihei, Tadanori Fukami, Tetsuya Yuasa (Yamagata University), Jin Wu (Chiba University), Kiichi Ishiwata and Kenji Ishii (Tokyo Metropolitan Institute of Gerontology)

P1-6

The time-series analysis of the quantity of brain glucose metabolism by using a MR/PET image in ApoE4 carrier and non-carrier, Alzheimer's disease groups Ayaka Tarusawa, Mika Tanaka, Mitsuyo Nihei, Tadanori Fukami, Tetsuya Yuasa (Yamagata University), Jin Wu (Chiba University), Kiichi Ishiwata and Kenji Ishii (Tokyo Metropolitan Institute of Gerontology)

P1-7

Selection method of classifier for computer-aided diagnosis

Shunsuke Horie (Gifu University), Tomoko Matsubara (Nagoya Bunri University), Toshiaki Okada, Kouhei Nishimura (Gifu University), Satoshi Kasai (Konica Minolta Medical Imaging USA, INC.), Yoshikazu Uchiyama (Oita National College of Technology), Chisako Muramatsu, Xiangrong Zhou, Takeshi Hara and Hiroshi Fujita (Gifu University)

P1-8

A Tissue Selective Visualization of Whole-body Autopsy CT by Combining Tissue Classification and Volume Rendering

Changyong Heo and Jonghyo Kim (Seoul National University)

P1-9

Development of automatic measurement method of liver elasticity in MR cine-tagging images

Teruhiko Kitagawa (Gifu National College of Technology), Seiki Miotani, Xiangrong Zhou (Gifu University), Haruwo Watanabe (Gifu University Hospital), Takeshi Hara (Gifu University), Ryujiro Yokoyama, Masayuki Kanematsu (Gifu University Hospital) and Hiroshi Fujita (Gifu University)

CAS

P1-10

A quality model of virtual reality endoscopic simulator for oral surgery Shinya Hoshino, Junko Izawa, Fan Chen, Kazunori Kotani (Japan Advanced Institute of Science and Technology) and Takehiro Miki (Kagawa University)

P1-11

Computerized verification method for patient setup using portal images during radiation treatment of prostate cancer

Wataru Itano, Hidetaka Arimura, Yoshiyuki Shioyama, Taiki Magome, Tadamasa Yoshitake (Kyushu University), Shigeo Anai, Katsumasa Nakamura, Satoshi Yoshidome, Masayuki Tachibana (Kyushu University Hospital), Satoshi Nomoto (Fukuoka University Hospital), Hiroshi Honda, Masafumi Ohki, Fukai Toyofuku and Hideki Hirata (Kyushu University)

P1-12

Production of TMM (Tissue mimicking material) ultrasound phantom changed construction ratio and evaluation experiment of temperature characteristic Jinsu Kim, Sicheul Noh, Juyoung Kim, Jaehyun Park, Junghun Kang and Heungho Choi (Inje University)

Display and Image Quality

P1-13

Evaluation of image quality characteristics of reduction image

Yukiyoshi Kimura, Daigo Yokoyama (Nagoya University), Naotoshi Fujita (Nagoya University Hospital) and Yoshie Kodera (Nagoya University)

P1-14

Potential usefulness of medical liquid crystal displays using independent sub-pixel driving technology

Masayuki Shimosegawa, Hiroyuki Nagashima, Syuhei Hoshino and Kunio Doi (Gunma Prefectural College of Health Sciences)

P1-15

Proposing a new image quality measure for digital phase contrast imaging Satoru Matsuo (Shiga University of Medical Science), Junji Morishita (Kyushu University), Tetsuro Katafuchi (Gifu University of Medical Science) and Hiroshi Fujita (Gifu University)

P1-16

Creating and Visualizing virtual stereoscopic chest X-ray using 3D CT dataset. Ze Pa Yang and Jong Hyo Kim (Seoul National University)

Imaging

P1-17

A new component-based normalization method for OpenPET image reconstruction

Yuji Miyoshi (Chiba University), Shoko Kinouchi (Chiba University), Taiga Yamaya, Eiji Yoshida, Fumihiko Nishikido, Hideaki Tashima and Mikio Suga (National Institute of Radiological Sciences)

P1-18

Analytical approach to compensate loss of low frequency information in OpenPET image reconstruction

Takayuki Katsunuma (Chiba University), Taiga Yamaya, Hideo Murayama (National Institute of Radiological Sciences), Hiroyuki Kudo (University of Tsukuba), Takashi Obi (Tokyo Institute of Technology), Hideaki Tashima (National Institute of Radiological Sciences), Shoko Kinouchi (Chiba University) and Mikio Suga (Chiba University)

P1-19

Analysis the Effects of RF shielding PET-Gantry in MRI-PET system MyungSung Song (KAIST), Key Jo Hong, Yong Choi (Sogang University) and

Hyun-wook Park (KAIST)

P1-20

Investigation of hair in scalp psoriasis using atomic force microscopy

Kyung Sook Kim, Hun Kuk Park, Jin Woo Lee, Gi Ja Lee, Gyeong Bok Jung, Songhui Kim, Choong-Rim Haw and Min Kyung Shin (Kyung Hee University)

P1-21

Geometric Distortion Correction in MRI using the ADNI Phantom for Multi-site Clinical Studies

Norihide Maikusa, Fumio Yamashita (Research Association for Biotechnology), Atsushi Kawaguchi (Kurume University), Tetsuya Yuasa (Yamagata University), Noriko Sato (National Center of Nurology and Psychiatry), Hiroshi Matsuda (Saitama Medical University) and Takeshi Iwatsubo (The University of Tokyo)

P1-22

Accelerating Iterative Cone-Beam Computed Tomography Reconstruction on Multiple GPUs

Yukai Hung, Yi-Yan Chuo, Cheng-Ying Chou and Weichung Wang (National Taiwan University)

P1-23

Suitable parameters for diffusion-weighted imaging using 0.4T intraoperative magnetic resonance imaging of the pyramidal tract

Yoshinori Asahina, Masazumi Fujii, Masatoshi Tsuzaka, Yuichiro Hayashi, Takashi Mitsui, Atsushi Fukuyama and Toshihiko Wakabayashi (Nagoya University)

P1-24

Utilization of data redundancy in circular cone-beam CT

Seungryong Cho and Gyuseong Cho (KAIST)

Medical Informatics

P1-25

Detection of Checkboxes from Scanned Questionnaire Forms: Class Projects of Medical Informatics Class at Mahidol University

Panrasee Ritthipravat (Mahidol University)

Image Analysis

P1-26

Automatic Contour Extraction of Coronary Artery in X-ray Angiogram

Jung A Baek, Min Jin Lee and Helen Hong (Seoul Women's University)

P1-27

Non-rigid Registration of Breast Dynamic Contrast-enhanced MRI Using the Fluid Transformation and Thin Plate Spline Model

Yu Tzu Lee (National Taiwan University), Yeun Chung Chang (National Taiwan University Hospital) and Chung Ming Chen (National Taiwan University)

P1-28

Extraction of liver region from CT dataset based on blood vessel information

Ahmed S. Maklad, Matsuhiro Mikio, Yoshiki Kawata, Noboru Niki, Utsunomiya Toru, Shimada Mitsuo and Hiromu Nishitani (the University of Tokushima)

P1-29

Extraction of Colon Segments from Multi-Slice CT Images for Colon Cancer Screening

Yizhong Hu, Mohammed Shabbir Ahamed, Eiji Takahashi, Hidenobu Suzuki, Yoshiki kawata, Noboru Niki (the University of Tokushima), Masahiro Suzuki (National Cancer Research Center for Cancer Prevention and Screening), Gen linuma (National Cancer Center, Hospital) and Noriyuki Moriyama (National Cancer Research Center for Cancer Prevention and Screening)

P1-30

Amygdala autosegmentation using nonlinear registration and skeletonization of adjacent structure

Hengjun J Kim (Korea Basic Science Institute), Namkug Kim (Asan Medical Center) and Gyunggoo Cho (Korea Basic Science Institute)

P1-31

Automatic pathology stitching of the prostate with geometric correction and rigid registration

Ji Un Lee and Helen Hong (Seoul Women's University)

P1-32

Automated Stopping Criterion of level set for Cardiac SPECT segmentation Seokyoon Choi (Catholic University of Pusan), Gunhee Do and Mingi Kim (Korea University)

P1-33

Withdrawn

January 19, 10:15-11:15

Poster Session 2

CAD

P2-1

Phalanx assessment based on fuzzy adaptive two-means algorithm

Chi-Wen Hsieh, Chih-Yen Chen and Tai-Lang Jong (National Chia-Yi University)
P2-2

Breast Tumor Identification with Gabor Filter on Sonogram

Chen Chia Chang, Ju Ting Chen and Ming Wei Chen (National Ilan University) P2-3

A multispectral approach in MRI breast density measurement

San-Kan Lee, Jyh-Wen Chai, Siwa Chan (Taichung Veterans General Hospital), Jeon-Hor Chen (University of California), Chien-Shun Lo (National Formosa University), Clayton Chi-Chang Chen (Taichung Veterans General Hospital), Hsian-Min Chen (HungKuang University) and Chein-I Chang (University of Maryland) P2-4

Automatic detection of hepatocellular carcinoma and visualization of CAD output in contrast CT images

Naoki Kamiya, Shohei Suganuma (Toyota National College of Technology) and Huayue Chen (Gifu University Hospital)

P2-5

A Comparison of Logistic Regression Analysis and an Artificial Neural Network Using the BI-RADS Lexicon for Ultrasonography in Conjunction with Interobserver Variability

Sun Mi Kim (Seoul National University Bundang HospitalC), Heon Han, Young Moon Chae and Myeong Sub Lee (Yonsei University)

P2-6

Radiographic assessment of joint defects in a murine type II collagen-induced arthritis model

Samjin Choi, Su-Jin Chae, Sung Wook Kang, Eunkuk Park, Youjin Cheong, Seung-Jae Hong and Hun-Kuk Park (Kyung Hee University)

P2-7

Automatic measurement of elasticity of liver region using MR Tagging Image Seiki Miotani, Xuejun Zhang (Gifu University), Teruhiko Kitagawa (Gifu National College of Technology), Xiangrong Zhou, Takeshi Hara (Gifu University), Ryujiro Yokoyama, Haruo Watanabe, Masayuki Kanematsu (Gifu University Hospital) and Hiroshi Fujita (Gifu University)

P2-8

Automated Detection of Multiple Sclerosis Lesions: False Positive Removal Using a Level Set Method and a Support Vector Machine

Junpei Kuwazuru, Hidetaka Arimura (Kyushu University), Shingo Kakeda (University of Occupational and Environmental Health), Daisuke Yamamoto (Siemens Corporation), Taiki Magome, Yasuo Yamashita, Masafumi Ohki, Fukai Toyofuku (Kyushu University) and Yukunori Korogi (University of Occupational and Environmental Health)

P2-9

Brain volume changes according to the state of the three groups: Normal, MCI and Dementia

Mitsuyo Nihei, Tadanori Fukami, Tetsuya Yuasa (Yamagata University), Kiyotaka Nemoto and Takashi Asada (Tsukuba University)

P2-10

Modeling Disease-specific Variations in Statistical Shape Model using Orthogonal Complement of Normal Shape Subspace

Dipti Prasad Mukherjee (Indian Statistical Institute), Toshiyuki Okada, Masatoshi Hori, Nobuhiko Sugano, Noriyuki Tomiyama and Yoshinobu Sato (Osaka University)

CAS

P2-11

Proposal and evaluation of a guideline-based method for patient positioning in radiotherapy

Riki Fukuhara (Chiba University), Shinichiro Mori, Motoki Kumagai (National Institute of Radiological Sciences) and Hideaki Haneishi (Chiba University)

P2-12

Withdrawn

P2-13

Effect of the geometric distortions in low-field and high-field MRI on navigation accuracy in image-guided neurosurgery

Takashi Mitsui (Nagoya University)

Display and Image Quality

P2-14

Super-resolution based on deblurred PET images

Ji Hye Kim, Kye Young Jeong, Woo Hyun Nam, II Jun Ahn and Jong Beom Ra (KAIST)

P2-15

Mammogram Contrast Enhancement based on X-ray Attenuation Characteristics

Jae-Hyun Kwon, Hyun-Hwa Oh, SungSu Kim, Younghun Sung (Samsung Electronics), MyungJin Chung (Samsung Medical Center) and SeongDeok Lee (Samsung Electronics)

P2-16

Application of Total Variation Minimization Technique to Low-dose CT for Simultaneous Denoising and Deblurring

Changyong Heo, Zepa Yang, Youngwoo Kim and Jonghyo Kim (Seoul National University)

P2-17

Study of signal-to-noise ratios considered human visual characteristics

Yui Hayashi, Maki Yamada (Nagoya University), Naotoshi Fujita (Nagoya University

Hospital) and Yoshie Kodera (Nagoya University)

Imaging

P2-18

Refraction-contrast computed tomography using X-ray dark field imaging

Naoki Sunaguchi, Tetsuya Yuasa (Yamagata University), Qingkai Huo, Masaki Sakai (Tokyo University of Science), Yanlin Wu (Graduate University for Advanced Studies), Shu Ichihara (Nagoya Medical Center) and Masami Ando (Tokyo University of Science)

P2-19

Application of X-ray Dark Field Imaging to Liver Tissue Specimen Qingkai Huo (Tokyo University)

P2-20

Optimal dimensionality in principal component analysis for noise reduction applied to PET neuroreceptor quantification for adenosine A2A receptors

Yosuke Okanishi (Chiba University), Yuichi Kimura (National Institute of Radiological Sciences), Muneyuki Sakata (Tokyo Metropolitan Institute of Gerontology) and Mikio Suga (Chiba University)

P2-21

A Contrast Adaptive Total p-norm Variation Minimization Approach to CT reconstruction for Artifact Reduction of Reduced View Perfusion CT imaging Chang Won Kim and Jong Hvo Kim (Seoul National University)

P2-22

Ultrastructural observations of intact orbital implants using atomic force microscopy

Samjin Choi, Youjin Cheong, Jae-Ho Shin (Kyung Hee University), Hui-Jae Lee (Kangwon National University), Gyeong Bok Jung, Kyung-Hyun Jin and Hun-Kuk Park (Kyung Hee University)

P2-23

Image Magnification Using FREBAS Transform Wiht Super-Resolution Effects Satoshi Ito, Taiki Eiraku and Yoshifumi Yamada (Utsunomiya University)

P2-24

Dental Computed Tomography Simulation based on GATE Monte Carlo Simulation

Hwa-Yu Lee, Wan-Ting Lee (National Yang-Ming University), Chih-Chia Huang (National Taiwan University and National Taiwan University Hospita), David Shih-Chun Jin, Yen-Ning Chiu and Jyh-Cheng Chen (National Yang-Ming University) P2-25

Development of statistical position determination method for the next generation PET detector X'tal cube

Takahiro Yokoyama (Chiba University), Takayuki Mitsuhashi (Chiba University, National Institute of Radiological Sciences), Fumihiko Nishikido, Naoko Inadama, Eiji Yoshida, Hideo Murayama, Taiga Yamaya (National Institute of Radiological Sciences) and Mikio Suga (Chiba University)

Medical Informatics

P2-26

A Dipole Antenna with Broadband Balun for WLAN/WiMAX/LTE

Chi-Wen Hsieh, Shih-Cheng Lin, Tai-Lang Jong and Kuo-Jui Ho (National Chia-Yi University)

P2-27

Designing Serviceflow Platform for Healthcare Knowledge Sharing

Ta-Wei Shih, Huey-Ming Guo , Fei-Ju Hsieh and Her-Kun Chang (Chang Gung University)

Image Analysis

P2-28

Automatic segmentation of the left ventricle in ED and ES X-ray angiogram

Min Jin Lee and Helen Hong (Seoul Women's University)

P2-29

Left Ventricular Myocardium Segmentation on Delayed Phase of Multi-detector Row Computed Tomography

Po-Ting Liu (Tunghai University), I-Chen Tsai (Taichung Veterans General Hospital) and Yu-Len Huang (Tunghai University)

P2-30

A Histology Image Segmentation Algorithm Combining Graph Partitioning Active Contours and Local Structural Information

Chi-Hsuan Tsou (National Taiwan University), Yi-Chien Lu, Ang Yuan, Yeun-Chung Chang (National Taiwan University Hospital and College of Medicine), Jyh-Horng Chen and Chung-Ming Chen (National Taiwan University)

P2-31

Towards Fully Automated DWI Thermometry within Lateral Ventricle; Image Registration Approach on Normal Volunteer

Koji Sakai (Kyoto University), Kei Yamada (Kyoto Prefectural University of Medicine), Naozo Sugimoto (Kyoto University) and Tsunehiko Nishimura (Kyoto Prefectural University of Medicine)

P2-32

Automated segmentation of psoas major muscle using outer shape model
Naoki Kamiya (Toyota National College of Technology), Xiangrong Zhou (Gifu
University), Huayue Chen (Gifu University Hospital), Chisako Muramatsu, Takeshi
Hara (Gifu University), Ryujiro Yokoyama, Masayuki Kanematsu (Gifu University
Hospital), Hiroaki Hoshi and Hiroshi Fujita (Gifu University)
P2-33

A high-speed method for liver segmentation on abdominal CT image
Huiyan Jiang, Xihe Gao (Northeastern University), Wenhan Wang (Liaoning
Technical University), Hao Wang, Fengzhen Tang and Ruijie Feng (Northeastern
University)

Invited Speakers

January 18, 13:00-13:30

Special Session 1: Invited talks from Japan

Tetsuya Yuasa

Tetsuya Yuasa received the B.Sc. degree in physics, and the M.Eng. and Ph.D. degrees in mathematical engineering and information physics from the University of Tokyo, Japan, in 1986, 1991, and 1997, respectively. From 1986 to 1988, he was with Fujitsu Laboratories Ltd., Japan. Since 1991, he has been with the



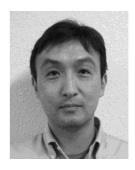
Yamagata University, Yonezawa, Japan, where he is now a professor at the Department of Bio-System Engineering. His research interests are CT imaging methods based on various kinds of physical probes such as near-infrared laser light, electron spin resonance, gamma-ray, and synchrotron x-ray, and their image processing. He is a member of JAMIT, SICE, IEICE, and IEEE.

January 18, 13:00-13:30

Special Session 1: Invited talks from Japan

Akinobu Shimizu

Akinobu Shimizu received his B.E. and Ph.D. degrees from Graduate School of Engineering, Nagoya University in 1989 and 1994, respectively. He became a research associate at Nagoya University in 1994, and has been an associate professor in the Graduate School of Engineering, Tokyo University of Agriculture and Technology since 1998. His research interests include medical image processing and analysis.



He has received several awards, including IFMIA poster awards in 2009 and first prize of the MICCAI Grand Challenge workshop 2008. He is a member of the Japanese Society of Medical Imaging Technology, the Japanese Society for Medical and Biological Engineering, and the IEEE.

January 18, 16:00-16:30

Special Session 2: Invited talks from China

Chunshui Yu

Chunshui Yu is a professor and senior radiologist in the Department of Radiology at Tianjin Medical University General Hospital, Tianjin, China. His research interests are brain plasticity and brain connectivity using multi-modality MRIs. Prof. Yu has published more 40 regular papers in the international journals, such as Brain, Journal of Neuroscience, Neuroimage, Human Brain Mapping, and Radiology.



January 18, 16:00-16:30

Special Session 2: Invited talks from China

Yong Fan

Dr. Yong Fan is professor of pattern recognition and intelligence system at the National Laboratory of Pattern Recognition, Institute of Automation, Chinese Academy of Sciences. He received his Ph.D. degree from the Chinese Academy of Science and obtained his post-doc training at the University of Pennsylvania. He is a recipient of President Scholarship of the Chinese Academy of Sciences (2002) and Editors



Choice Award of the Organization for Human Brain Mapping (2008). His research won him an NIH career development award in 2009. He is a senior member of IEEE. His research interests include medical image analysis, pattern recognition, and their applications to studies of neurological diseases.

January 19, 15:00-16:00

Special Session 3: Invited talks from Taiwan & Korea

Jyh-Cheng Chen

Jyh-Cheng Chen received the BS degree in physics from National Central University, Taiwan, in 1983, and the MS degree in physics and PhD degree in optical sciences from the University of Arizona, USA in 1988 and 1995, respectively. In 1995, he joined the Opto-Electronics and System Laboratories, Industrial Technology Research Institute, Taiwan, as a research associate working on



semiconductor laser packaging. In 1996, he became a member of the faculty of Division of Radiological Science and Technology, Department of Medical Technology, National Yang-Ming University (NYMU), Taiwan. In 1998, he became an associate professor of Institute of Radiological Sciences, National Yang-Ming University, Taiwan. Since 2005, he has been a professor in the Department of Biomedical Imaging and Radiological Sciences, National Yang-Ming University, Taiwan, teaching and pursuing his research interests in areas of radiological imaging and nuclear medicine instrumentation. In particular, Prof. Chen is using microPET, microSPECT, microCT to do statistical image reconstruction, processing and analysis for animal molecular imaging studies. Prof. Chen has also made a home-made micro-CT. Prof. Chen is a member of Society of Nuclear Medicine, Society for Molecular Imaging, the Institute of Electrical and Electronics Engineering (IEEE), and Biomedical Engineering Society of the ROC.

January 19, 15:00-16:00

Special Session 3: Invited talks from Taiwan & Korea

Jong Beom Ra

Jong Beom Ra received the B.S. degree in electronic engineering in 1975 from Seoul National University, and the M.S. and Ph.D. degrees in electrical engineering from KAIST, Korea, in 1977 and 1983, respectively. From 1983 to 1987, he was a member of the faculty at Columbia University, New York, engaged in the development of medical imaging systems



such as high field magnetic resonance imaging and spherical positron emission tomography systems. In July 1987, he joined the Department of Electrical Engineering at KAIST, where he is now a professor. His research interests are digital image and video processing, 3-D image registration, and medical imaging such as positron emission tomography and ultrasound.

Presentation Instruction

Oral Presentation Instructions

Oral presenters of regular paper will be allowed 7 minutes for presentation and 3 minutes for discussion and questions from the audience. This time limit is strictly enforced; going over your 7-minute allotted presentation time will reduce the time for questions. Please use your own laptop PC for presentation. You are strongly recommended to confirm that presentation slides are successfully shown on the screen prior to your session. A video cable switcher will be prepared. The next speaker needs to come to a next speaker's seat near to the podium and connect his/her laptop to the cable during the previous speaker is talking. When you start the presentation, just bring your laptop to the podium as the cable connected.

Poster Presentation Instructions

The maximum poster size is 90cm width x 120cm height. Fasteners to attach your poster to the panel will be available in the poster room. Your panel will be labeled with the session and number of your poster, also referred to as your "Paper ID."

Time schedule of poster sessions are as follows.

Session	Date	Installation	Presentation	Removal
Poster Session 1	Jan. 18	11:45-13:00	15:00-16:00	17:00-18:00
Poster Session 2	Jan. 19	9:00-10:15	10:15-11:15	12:00-13:00

Posters must be installed and removed during the time described above. Posters that are not removed on time may be subject to disposal.

Reception

The Reception will be held at the Tenbusu hall, the same place as the oral sessions. When the last oral session of Jan 18 is closed, the audience will be required to go out from the hall once and stay in the foyer or poster session area for 15-20 minutes until the set-up of the reception is completed.

IFMIA2011 Forum Registration

Registration time

Jan. 18: 9:15-18:00 Jan. 19: 9:00-15:00

Registration fee

Please pay the registration fee in cash at the registration desk of the forum site. Only Japanese yen (cash) is accepted.

	Pre-registration fee (until Dec. 15, 2010)	Onsite registration fee
Full registration*	10,000 yen	12,000 yen
Regular (Reception is not included)	6,000 yen	8,000 yen
Student (Reception is not included)	2,000 yen	3,000 yen
Forum reception*	4,000 yen	4,000 yen

Full registration includes all forum items such as a program booklet and a USB memory key of proceedings, a name card, plus forum reception. Regular and student do not include forum reception.

- * Discount of 1,000 yen for full registration and forum reception is applied to member of related academic societies listed below, attendants from foreign countries and students.
 - ✓ JAMIT (The Japanese Society of Medical Imaging Technology)
 - ✓ MII (Japan Society of Medical Imaging and Information Sciences)
 - ✓ SPSTJ (The Society of Photographic Science and Technology of Japan)
 - ✓ Korean Society of Imaging Informatics in Medicine
 - ✓ Biomedical Engineering Society of the ROC.

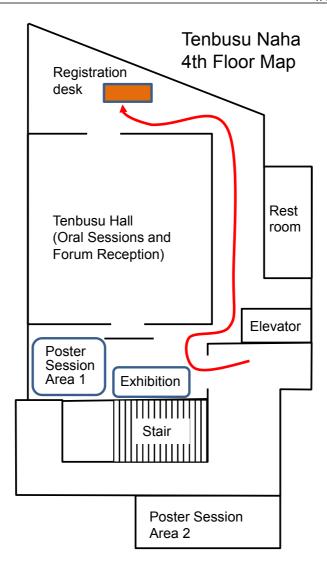
Venue

Okinawa is the southernmost prefecture of Japan and a subtropical island. The weather is nicely warm in January and the food is very good. The forum venue, Tenbusu Naha is located in the heart of Naha and very convenient for both staying and enjoying the shopping and nightlife.

A monorail named Yui-rail is running between Naha airport and Shuri and is a very convenient public transportation to reach the downtown Naha. Tenbusu Naha is located at Kokusai Dori and Sakurazaka Naka Dori near Makishi station of Yui-rail (see the map). It takes about 16 minutes from the Naha airport to Makishi Station.

The forum will be held on the 4th floor (top floor) of Tenbusu Naha. Registration desk will also be set on the 4th floor.





Contact

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