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Image Processing

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POSTER SESSION: ATLASES

- 7962 24 **Evaluation of multi atlas-based approaches for the segmentation of the thyroid gland in IMRT head-and-neck CT images** [7962-75]
A. Chen, Vanderbilt Univ. (United States); K. J. Niermann, M. A. Deeley, Vanderbilt-Ingram Cancer Ctr. (United States); B. M. Dawant, Vanderbilt Univ. (United States)
- 7962 25 **Automatic skull-stripping of rat MRI/DTI scans and atlas building** [7962-76]
I. Oguz, J. Lee, F. Budin, A. Rumble, M. McMurray, Univ. of North Carolina at Chapel Hill (United States) C. Ehlers, The Scripps Research Institute (United States); F. Crews, J. Johns, M. Styner, Univ. of North Carolina at Chapel Hill (United States)
- 7962 26 **Evaluating and improving label fusion in atlas-based segmentation using the surface distance** [7962-77]
T. R. Langerak, U. A. van der Heide, A. Kotte, F. F. Berendsen, J. P. W. Pluim, Univ. Medical Ctr. Utrecht (Netherlands)
- 7962 27 **Group-wise automatic mesh-based analysis of cortical thickness** [7962-78]
C. Vachet, H. Cody Hazlett, M. Niethammer, I. Oguz, Univ. of North Carolina at Chapel Hill (United States); J. Cates, R. Whitaker, Univ. of Utah (United States); J. Piven, M. Styner, Univ. of North Carolina at Chapel Hill (United States)
- 7962 28 **A totally deflated lung's CT image construction by means of extrapolated deformable registration** [7962-79]
A. Sadeghi Naini, Univ. of Western Ontario (Canada) and Robarts Research Institute (Canada) and Lawson Health Research Institute (Canada); R. V. Patel, Univ. of Western Ontario (Canada) and Lawson Health Research Institute (Canada); A. Samani, Univ. of Western Ontario (Canada) and Robarts Research Institute (Canada)

7962 29 **An automated pipeline for cortical surface generation and registration of the cerebral cortex** [7962-80]
W. Li, Univ. of Iowa (United States); L. Ibanez, Kitware, Inc. (United States); A. Gelas, Harvard Medical School (United States); B. T. T. Yeo, Harvard Univ. (United States); M. Niethammer, Univ. of North Carolina at Chapel Hill (United States); N. C. Andreasen, V. A. Magnotta, The Univ. of Iowa (United States)

7962 2A **Groupwise consistent image registration: a crucial step for the construction of a standardized near infrared hyper-spectral teeth database** [7962-81]
Ž. Špiclin, P. Usenik, M. Bürmen, A. Fidler, F. Pernuš, B. Likar, Univ. of Ljubljana (Slovenia)

POSTER SESSION: SEGMENTATION

7962 2B **Model-based segmentation of the facial nerve and chorda tympani in pediatric CT scans** [7962-82]
F. A. Reda, J. H. Noble, A. Rivas, R. F. Labadie, B. M. Dawant, Vanderbilt Univ. (United States)

7962 2C **Estimation of sufficient signal to noise ratio for texture analysis of magnetic resonance images** [7962-83]
S. Savio, L. Harrison, Tampere Univ. Hospital (Finland) and Tampere Univ. of Technology (Finland); P. Ryymin, P. Dastidar, S. Soimakallio, Tampere Univ. Hospital (Finland); H. Eskola, Tampere Univ. Hospital (Finland) and Tampere Univ. of Technology (Finland)

7962 2D **Variational level-set segmentation and tracking of left ventricle using field prior** [7962-84]
M. Afshin, The Univ. of Western Ontario (Canada) and Robarts Research Institute (Canada); I. Ben Ayed, GE Healthcare (Canada); A. Islam, St. Joseph's Health Care London (Canada); I. Ross, London Health Sciences Ctr. (Canada); T. Peters, Robarts Research Institute (Canada) and The Univ. of Western Ontario (Canada); S. Li, GE Healthcare (Canada) and The Univ. of Western Ontario (Canada)

7962 2E **A novel segmentation method to identify left ventricular infarction in short-axis composite strain-encoded magnetic resonance images** [7962-85]
A. O. Algohary, Diagnosoft, Inc. (United States); M. K. Metwally, Nile Univ. (Egypt); A. M. El-Bialy, A. H. Kandil, Cairo Univ. (Egypt); N. F. Osman, Johns Hopkins Univ. (United States)

7962 2F **Automated analysis of infarct heterogeneity on delayed enhancement magnetic resonance images** [7962-86]
Y. Lu, G. A. Paul, Sunnybrook Health Sciences Ctr. (Canada); K. A. Connelly, Univ. of Toronto (Canada) and Sunnybrook Health Sciences Ctr. (Canada); G. A. Wright, Sunnybrook Health Sciences Ctr. (Canada) and Univ. of Toronto (Canada); P. E. Radau, Sunnybrook Health Sciences Ctr. (Canada)

7962 2G **White matter lesion segmentation using machine learning and weakly labeled MR images** [7962-87]
Y. Xie, Univ. of Florida (United States); X. Tao, GE Global Research Ctr. (United States)

7962 2H **Fast 4D segmentation of large datasets using graph cuts** [7962-88]
H. Lombaert, Ecole Polytechnique de Montréal (Canada); Y. Sun, Siemens Corp. Research (United States); F. Cheriet, Ecole Polytechnique de Montréal (Canada)

Part Two

- 7962 2I **Segmentation of liver and liver tumor for the Liver-Workbench** [7962-89]
J. Zhou, A*STAR Institute for Infocomm Research (Singapore); F. Ding, W. Xiong, National Univ. of Singapore (Singapore); W. Huang, Q. Tian, Z. Wang, A*STAR Institute for Infocomm Research (Singapore); S. K. Venkatesh, W. K. Leow, National Univ. of Singapore (Singapore)
- 7962 2J **Automatic detection, segmentation and characterization of retinal horizontal neurons in large-scale 3D confocal imagery** [7962-90]
M. Karakaya, The Univ. of Tennessee (United States); R. A. Kerekes, S. S. Gleason, Oak Ridge National Lab. (United States); R. A. P. Martins, Univ. Federal do Rio de Janeiro (Brazil); M. A. Dyer, St. Jude Children's Research Hospital (United States)
- 7962 2K **3D segmentation of prostate ultrasound images using wavelet transform** [7962-91]
H. Akbari, X. Yang, L. V. Halig, B. Fei, Emory Univ. (United States)
- 7962 2L **Orientation estimation of anatomical structures in medical images for object recognition** [7962-92]
U. Bağcı, National Institutes of Health (United States); J. K. Udupa, The Univ. of Pennsylvania Health System (United States); X. Chen, National Institutes of Health (United States)
- 7962 2N **Local morphologic scale: application to segmenting tumor infiltrating lymphocytes in ovarian cancer TMAs** [7962-94]
A. Janowczyk, Rutgers Univ. (United States) and Indian Institute of Technology Bombay (India); S. Chandran, Indian Institute of Technology Bombay (India); M. Feldman, Hospital at the Univ. of Pennsylvania (United States); A. Madabhushi, Rutgers Univ. (United States)
- 7962 2O **Brain tumour segmentation and tumour tissue classification based on multiple MR protocols** [7962-95]
A. Franz, S. Remmele, J. Keupp, Philips Research Labs. (Germany)
- 7962 2P **Confidence-based ensemble for GBM brain tumor segmentation** [7962-96]
J. Huo, E. M. van Rikxoort, Univ. of California, Los Angeles (United States); K. Okada, San Francisco State Univ. (United States); H. J. Kim, W. Pope, J. Goldin, M. Brown, Univ. of California, Los Angeles (United States)
- 7962 2Q **Feature-driven model-based segmentation** [7962-97]
A. A. Qazi, J. Kim, D. A. Jaffray, Princess Margaret Hospital (Canada); V. Pekar, Philips Research North America (Canada)
- 7962 2R **Cell nuclei segmentation for histopathological image analysis** [7962-98]
H. Kong, K. Belkacem-Boussaid, M. Gurcan, Ohio State Univ. (United States)
- 7962 2S **Automatic ROI identification for fast liver tumor segmentation using graph-cuts** [7962-99]
K. Drechsler, M. Strosche, C. Oyarzun Laura, Fraunhofer-Institut für Graphische Datenverarbeitung (Germany)

- 7962 2T **Simultaneous automatic detection of optic disc and fovea on fundus photographs** [7962-100]
X. Xu, M. K. Garvin, The Univ. of Iowa (United States); M. D. Abramoff, The Univ. of Iowa (United States) and The Veteran's Administration Medical Ctr. (United States); J. M. Reinhardt, The Univ. of Iowa (United States)
- 7962 2U **Supervised segmentation methods for the hippocampus in MR images** [7962-101]
M. van Stralen, M. I. Geerlings, K. L. Vincken, J. P. W. Pluim, Univ. Medical Ctr. Utrecht (Netherlands)
- 7962 2V **Integrating an adaptive region-based appearance model with a landmark-free statistical shape model: application to prostate MRI segmentation** [7962-102]
R. Toth, Rutgers, The State Univ. of New Jersey (United States); J. Bulman, A. D. Patel, Beth Israel Deaconess Medical Ctr. (United States); B. N. Bloch, Boston Medical Ctr. (United States); E. M. Genega, N. M. Rofsky, R. E. Lenkinski, Beth Israel Deaconess Medical Ctr. (United States); A. Madabhushi, Rutgers, The State Univ. of New Jersey (United States)
- 7962 2W **Segmenting multiple overlapping objects via a hybrid active contour model incorporating shape priors: applications to digital pathology** [7962-103]
S. Ali, A. Madabhushi, Rutgers, The State Univ. of New Jersey (United States)
- 7962 2X **Automatic three-dimensional rib centerline extraction from CT scans for enhanced visualization and anatomical context** [7962-104]
S. Ramakrishnan, Volt Workforce Solutions Inc. (United States); C. Alvino, L. Grady, A. Kiraly, Siemens Corp. Research (United States)
- 7962 2Y **Segmentation of in vivo target prior to tracking** [7962-105]
N. Masson, P. Zanne, F. Nageotte, M. de Mathelin, LSIT UMR CNRS, Strasbourg Univ. (France)
- 7962 2Z **Stability based validation of cellular segmentation algorithms** [7962-106]
P. Ajemba, R. Scott, M. Donovan, G. Fernandez, Aureon Biosciences, Inc. (United States)
- 7962 30 **Neural stem cell tracking with phase contrast video microscopy** [7962-107]
S. U. Rigaud, IPAL, UMI, CNRS (Singapore) and Univ. of Pierre et Marie Curie (France); N. Loménie, IPAL, UMI, CNRS (Singapore) and Ctr. National de la Recherche Scientifique (France) and Univ. Paris Descartes (France)
- 7962 31 **Boundary detection by linear programming with application to lung fields segmentation** [7962-108]
B. Ibragimov, B. Likar, F. Pernuš, Univ. of Ljubljana (Slovenia)
- 7962 32 **A liver segmentation approach in contrast-enhanced CT images with patient-specific knowledge** [7962-109]
A. Afifi, T. Nakaguchi, N. Tsumura, Chiba Univ. (Japan)
- 7962 33 **Building multiple weak segmentors for strong mass segmentation in mammogram** [7962-110]
Y. Zhang, N. Tomuro, J. Furst, D. S. Raicu, DePaul Univ. (United States)

- 7962 34 **A framework for automated coronary artery tracking of low axial resolution multi slice CT images** [7962-111]
J. Wu, Univ. of Surrey (United Kingdom); G. Ferns, Keele Univ. (United Kingdom); J. Giles, Conquest Hospital (United Kingdom); E. Lewis, Univ. of Surrey (United Kingdom)
- 7962 35 **3D segmentation of medical volume image using hybrid level set method** [7962-112]
M. Lee, W. Cho, S. Kim, Y. Chen, S. Kim, Chonnam National Univ. (Korea, Republic of)
- 7962 36 **Brain MRI segmentation and lesion detection using generalized Gaussian and Rician modeling** [7962-113]
X. Wu, Univ. of Houston (United States); S. Bricq, C. Collet, LSIT, UMR, CNRS, Univ. de Strasbourg (France)
- 7962 37 **Robust method for extracting the pulmonary vascular trees from 3D MDCT images** [7962-114]
P. Taeprasartsit, W. E. Higgins, The Pennsylvania State Univ. (United States)
- 7962 38 **A computerized scheme for localization of vertebral bodies on body CT scans** [7962-115]
T. Hayashi, H. Chen, K. Miyamoto, X. Zhou, T. Hara, Gifu Univ. Graduate School of Medicine (Japan); R. Yokoyama, M. Kanematsu, Gifu Univ. Graduate School of Medicine and Univ. Hospital (Japan); H. Hoshi, H. Fujita, Gifu Univ. Graduate School of Medicine (Japan)
- 7962 39 **Unsupervised segmentation of ultrasound images by fusion of spatio-frequential textural features** [7962-116]
S. Benameur, Eiffel Medtech, Inc. (Canada); M. Mignotte, Univ. de Montréal (Canada); F. Lavoie, Eiffel Medtech, Inc. (Canada)
- 7962 3A **Nonlinear band expansion and nonnegative matrix underapproximation for unsupervised segmentation of a liver from a multi-phase CT image** [7962-117]
I. Kopriva, Ruđer Bošković Institute (Croatia); X. Chen, J. Yao, National Institutes of Health (United States)
- 7962 3B **Automatic segmentation of chromatographic images for region of interest delineation** [7962-118]
A. M. Mendonça, A. V. Sousa, Univ. do Porto (Portugal); M. C. Sá-Miranda, IBMC - Instituto de Biologia Molecular e Celular (Portugal); A. C. Campilho, Univ. do Porto (Portugal)
- 7962 3C **A nonparametric segmentation method based on structural information using level sets** [7962-119]
Y. Zhu, Syracuse Univ. (United States); S. Cheng, Univ. of Oklahoma, Tulsa (United States); A. Goel, Syracuse Univ. (United States)
- 7962 3D **Simultaneous image segmentation and medial structure estimation: application to 2D and 3D vessel tree extraction** [7962-120]
S. Makram-Ebeid, J. Stawiński, Philips Healthcare Research Lab, (France); G. Pizaine, Philips Healthcare Research Lab. (France) and Telecom ParisTech, CNRS LTCI (France)

- 7962 3E **A unified framework for concurrent detection of anatomical landmarks for medical image understanding** [7962-121]
M. Nemoto, Y. Masutani, The Univ. of Tokyo (Japan); S. Hanaoka, The Univ. of Tokyo (Japan) and The Health and Life Science Univ. Hall in Tirol (Austria); Y. Nomura, T. Yoshikawa, N. Hayashi, N. Yoshioka, K. Ohtomo, The Univ. of Tokyo (Japan)
- 7962 3F **Automatic classification for mammogram backgrounds based on bi-rads complexity definition and on a multi content analysis framework** [7962-122]
J. Wu, Univ. of Technology of Compiègne (France); Q. Besnehard, C. Marchessoux, Barco N.V. (Belgium)
- 7962 3G **Foibles, follies, and fusion: assessment of statistical label fusion techniques for web-based collaborations using minimal training** [7962-123]
A. J. Asman, A. G. Scoggins, Vanderbilt Univ. (United States); J. L. Prince, The Johns Hopkins Univ. (United States); B. A. Landman, Vanderbilt Univ. (United States) and The Johns Hopkins Univ. (United States)
- 7962 3H **Automatic tissue classification for high-resolution breast CT images based on bilateral filtering** [7962-124]
X. Yang, I. Sechopoulos, B. Fei, Emory Univ. (United States)
- 7962 3I **Automated cell-analysis tool for a genome-wide RNAi screen with support vector machine based supervised learning** [7962-125]
S. Remmele, Univ. of Heidelberg (Germany); J. Ritzerfeld, W. Nickel, Heidelberg Univ. Biochemistry Ctr. (Germany); J. Hesser, Univ. of Heidelberg (Germany)
- 7962 3J **Automatic detection of regions of interest in mammographic images** [7962-126]
E. Cheng, H. Ling, Temple Univ. (United States); P. R. Bakic, A. D. A. Maidment, The Univ. of Pennsylvania (United States); V. Megalooikonomou, Temple Univ. (United States)
- 7962 3K **Plexiform neurofibroma tissue classification** [7962-127]
L. Weizman, L. Hoch, The Hebrew Univ. of Jerusalem (Israel); L. Ben Sira, Tel Aviv Sourasky Medical Ctr. (Israel); L. Joskowicz, The Hebrew Univ. of Jerusalem (Israel); L. Pratt, S. Constantini, D. Ben Bashat, Tel Aviv Sourasky Medical Ctr. (Israel)
- 7962 3L **A novel classification method based on membership function** [7962-128]
Y. Peng, Shanghai Univ. (China); C. Shen, L. Wang, G. Zhang, East China Normal Univ. (China)
- 7962 3M **Automatic 3D kidney segmentation based on shape constrained GC-OAAM** [7962-129]
X. Chen, R. M. Summers, J. Yao, National Institutes of Health (United States)
- 7962 3N **A new steerable pressure force for parametric deformable models** [7962-130]
J. Kong, L. Cooper, A. Sharma, T. Kurc, D. Brat, J. Saltz, Emory Univ. (United States)
- 7962 3O **Towards a parts-based approach to sub-cortical brain structure parsing** [7962-131]
D. Gagneja, SUNY at Buffalo (United States) and Indian Institute of Technology, Kharagpur (India); C. Xiong, J. J. Corso, SUNY at Buffalo (United States)

- 7962 3P **Region based level set segmentation of the outer wall of the carotid bifurcation in CTA** [7962-132]
D. Vukadinovic, T. van Walsum, R. Manniesing, S. Rozie, A. van der Lugt, Erasmus MC, Univ. Medical Ctr. Rotterdam (Netherlands); W. J. Niessen, Erasmus MC, Univ. Medical Ctr. Rotterdam (Netherlands) and Delft Univ. of Technology (Netherlands)
- 7962 3Q **Implicit medial representation for vessel segmentation** [7962-133]
G. Pizaine, Philips Healthcare (France) and Telecom ParisTech, CNRS (France); E. Angelini, I. Bloch, Telecom ParisTech, CNRS (France); S. Makram-Ebeid, Philips Healthcare (France)
- 7962 3R **A study on automated anatomical labeling to arteries concerning with colon from 3D abdominal CT images** [7962-134]
B. H. Hoang, M. Oda, Z. Jiang, Nagoya Univ. (Japan); T. Kitasaka, Aichi Institute of Technology (Japan); K. Misawa, Aichi Cancer Ctr. (Japan); M. Fujiwara, K. Mori, Nagoya Univ. (Japan)
- 7962 3S **Direction-dependent level set segmentation of cerebrovascular structures** [7962-135]
N. D. Forkert, D. Säring, T. Illies, J. Fiehler, Univ. Medical Ctr. Hamburg-Eppendorf (Germany); J. Ehrhardt, H. Handels, A. Schmidt-Richberg, Univ. of Lübeck (Germany)
- 7962 3U **Evaluation of blood vessel detection methods** [7962-137]
R. Sadeghzadeh, M. Berks, S. M. Astley, C. J. Taylor, The Univ. of Manchester (United Kingdom)
- 7962 3V **Automatic segmentation and diameter measurement of coronary artery vessels** [7962-138]
K. Zhao, Z. Tang, J. Pauli, Univ. of Duisburg-Essen (Germany)

POSTER SESSION: CLASSIFICATION

- 7962 3W **Liver fat quantification using fast kVp-switching dual energy CT** [7962-139]
A. Kriston, GE Healthcare (Hungary); P. Mendonça, GE Global Research (United States); A. Silva, R. G. Paden, W. Pavlicek, Mayo Clinic Scottsdale (United States); D. Sahani, Massachusetts General Hospital (United States); B. Janos Kis, Univ. of Szeged (Hungary); L. Rusko, GE Healthcare (Hungary); D. Okerlund, GE Healthcare (United States); R. Bhotika, GE Global Research (United States)
- 7962 3X **Robust biological parametric mapping: an improved technique for multimodal brain image analysis** [7962-140]
X. Yang, Vanderbilt Univ. (United States); L. Beason-Held, S. M. Resnick, National Institutes of Health (United States); B. A. Landman, Vanderbilt Univ. (United States) and The John Hopkins Univ. (United States)
- 7962 3Y **Automatic assessment of ultrasound image usability** [7962-141]
L. Valente, G. Funka-Lea, Siemens Corp. Research (United States); J. Stoll, Siemens Healthcare (United States)
- 7962 3Z **An image-guided tool to prevent hospital acquired infections** [7962-142]
M. Nagy, L. Szilágyi, Á. Lehotsky, T. Haidegger, B. Benyó, Budapest Univ. of Technology and Economics (Hungary)

POSTER SESSION: SHAPE

- 7962 40 **Propagating uncertainties in statistical model based shape prediction** [7962-143]
E. Syrkina, R. Blanc, G. Székely, ETH Zurich (Switzerland)
- 7962 41 **Shape model training for concurrent localization of the left and right knee** [7962-144]
H. Ruppertshofen, Univ. of Applied Sciences Kiel (Germany) and Otto-von-Guericke Univ. Magdeburg (Germany); C. Lorenz, Philips Research Labs. (Germany); S. Schmidt, Univ. of Applied Sciences (Germany) and Otto-von-Guericke Univ. Magdeburg (Germany); P. Beyerlein, Univ. of Applied Sciences Wildau (Germany); Z. Salah, G. Rose, Otto-von-Guericke Univ. Magdeburg (Germany); H. Schramm, Univ. of Applied Sciences Kiel (Germany)
- 7962 42 **Whole vertebral bone segmentation method with a statistical intensity-shape model based approach** [7962-145]
S. Hanaoka, The Health and Life Sciences Univ. (Austria) and The Univ. of Tokyo Hospital (Japan); K. Fritscher, B. Schuler, The Health and Life Sciences Univ. (Austria); Y. Masutani, N. Hayashi, K. Ohtomo, The Univ. of Tokyo Hospital (Japan); R. Schubert, The Health and Life Sciences Univ. (Austria)
- 7962 43 **Detecting hippocampal shape changes in Alzheimer's disease using statistical shape models** [7962-146]
K. Shen, Australian e-Health Research Ctr. (Australia) and LE2I, CNRS, Univ. de Bourgogne (France); P. Bourgeat, J. Fripp, Australian e-Health Research Ctr. (Australia); F. Meriaudeau, LE2I, CNRS, Univ. de Bourgogne (France); O. Salvado, Australian e-Health Research Ctr. (Australia)
- 7962 44 **Classification of mathematics deficiency using shape and scale analysis of 3D brain structures** [7962-147]
S. Kurtek, E. Klassen, The Florida State Univ. (United States); J. C. Gore, Z. Ding, Vanderbilt Univ. (United States); A. Srivastava, The Florida State Univ. (United States)
- 7962 45 **A decision support scheme for vertebral geometry on body CT scans** [7962-148]
T. Hayashi, H. Chen, Gifu Univ. (Japan); K. Miyamoto, Gifu Univ. Graduate School of Medicine (Japan); X. Zhou, T. Hara, Gifu Univ. (Japan); R. Yokoyama, M. Kanematsu, Graduate School of Medicine and Univ. Hospital (Japan); H. Hoshi, H. Fujita, Gifu Univ. (Japan)
- 7962 46 **A joint model for boundaries of multiple anatomical parts** [7962-149]
G. Kerr, INRIA (France); S. Kurtek, A. Srivastava, Florida State Univ. (United States)
- 7962 47 **Global-to-local, shape-based, real and virtual landmarks for shape modeling by recursive boundary subdivision** [7962-150]
S. Rueda, The Univ. of Oxford (United Kingdom); J. K. Udupa, The Univ. of Pennsylvania (United States)
- 7962 48 **Automatic cortical thickness analysis on rodent brain** [7962-151]
J. Lee, The Univ. of North Carolina at Chapel Hill (United States); C. Ehlers, Scripps Research Institute (United States); F. Crews, M. Niethammer, F. Budin, B. Paniagua, K. Sulik, J. Johns, M. Styner, I. Oguz, The Univ. of North Carolina at Chapel Hill (United States)

- 7962 49 **Statistical modeling of the arterial vascular tree** [7962-152]
T. Beck, C. Godenschwager, M. Bauer, Karlsruher Institut für Technologie (Germany) and Siemens AG (Germany); D. Bernhardt, Siemens AG (Germany); R. Dillmann, Karlsruher Institut für Technologie (Germany)

POSTER SESSION: MOTION ANALYSIS

- 7962 4A **Motion tracking of left ventricle and coronaries in 4D CTA** [7962-153]
D. P. Zhang, Imperial College London (United Kingdom); X. Zhuang, S. Ourselin, Univ. College London (United Kingdom); D. Rueckert, Imperial College London (United Kingdom)
- 7962 4B **Three-dimensional kinematic estimation of mobile-bearing total knee arthroplasty from x-ray fluoroscopic images** [7962-154]
T. Yamazaki, K. Futai, T. Tomita, Y. Sato, H. Yoshikawa, S. Tamura, K. Sugamoto, Osaka Univ. Graduate School of Medicine (Japan)
- 7962 4C **An iterative particle filter approach for respiratory motion estimation in nuclear medicine imaging (Cum Laude Poster Award)** [7962-155]
A. A. Abd. Rahni, K. Wells, E. Lewis, Univ. of Surrey (United Kingdom); M. Guy, Southampton Univ. Hospital Trust (United Kingdom); B. Goswami, Univ. of Surrey (United Kingdom)
- 7962 4D **SLIMMER: SLice MRI motion estimation and reconstruction tool for studies of fetal anatomy** [7962-156]
K. Kim, P. A. Habas, V. Rajagopalan, J. Scott, Univ. of California, San Francisco (United States); F. Rousseau, LSIT, CNRS, Univ. of Strasbourg (France); A. J. Barkovich, O. A. Glenn, C. Studholme, Univ. of California, San Francisco (United States)
- 7962 4E **Development of an automated processing method to detect still timing of cardiac motion for coronary magnetic resonance angiography** [7962-158]
H. Asou, Tsuchiya General Hospital (Japan) and Kanazawa Univ. Graduate School of Medical Sciences (Japan); K. Ichikawa, Kanazawa Univ. Graduate School of Medical Sciences (Japan); N. Imada, T. Masuda, T. Satou, Tsuchiya General Hospital (Japan)

POSTER SESSION: DTI AND FUNCTION

- 7962 4F **Shape anisotropy: tensor distance to anisotropy measure** [7962-159]
Y. T. Weldeselassie, S. El-Hilo, M. S. Atkins, Simon Fraser Univ. (Canada)
- 7962 4G **Scalable brain network construction on white matter fibers** [7962-160]
M. K. Chung, Univ. of Wisconsin-Madison (United States) and Waisman Lab. for Brain Imaging (United States) and Seoul National Univ. (Korea, Republic of); N. Adluru, K. M. Dalton, A. L. Alexander, R. J. Davidson, Waisman Lab. for Brain Imaging, Univ. of Wisconsin-Madison (United States)
- 7962 4H **Comparison between fourth and second order DT-MR image segmentations** [7962-161]
S. El-Hilo, Y. T. Weldeselassie, M. S. Atkins, Simon Fraser Univ. (Canada)
- 7962 4I **Second order DTMR image segmentation using random walker** [7962-162]
S. El-Hilo, Y. T. Weldeselassie, M. S. Atkins, Simon Fraser Univ. (Canada)

- 7962 4J **Effect of regularization parameter and scan time on crossing fibers with constrained compressed sensing** [7962-163]
F. E. A. Elshahaby, The Johns Hopkins Univ. (United States); B. A. Landman, Vanderbilt Univ. (United States); J. L. Prince, The Johns Hopkins Univ. (United States)
- 7962 4K **A new metric to measure shape differences in fMRI activity** [7962-164]
S. Khullar, Rochester Institute of Technology (United States) and The Mind Research Network (United States); A. M. Michael, The Mind Research Network (United States); N. Correa, T. Adali, Univ. of Maryland (United States); N. Cahill, S. A. Baum, Rochester Institute of Technology (United States); V. D. Calhoun, Rochester Institute of Technology (United States) and The Mind Research Network (United States) and Univ. of New Mexico (United States)
- 7962 4L **Fast computation of functional networks from fMRI activity: a multi-platform comparison** [7962-165]
A. R. Rao, R. Bordawekar, G. Cecchi, IBM Thomas T.J. Watson Research Ctr. (United States)

POSTER SESSION: ENHANCEMENT

- 7962 4M **Detector defect correction of medical images on graphics processors** [7962-166]
R. Membarth, F. Hannig, J. Teich, Univ. of Erlangen-Nuremberg (Germany); G. Litz, H. Hornegger, Siemens AG (Germany)
- 7962 4O **Reconstruction of high-resolution fluorescence microscopy images based on axial tomography** [7962-168]
S. Remmele, B. Oehm, F. Staier, H. Eipel, C. Cremer, J. Hesser, Ruprecht Karls Univ. Heidelberg (Germany)
- 7962 4P **Improved 3-D wavelet-based de-noising of fMRI data** [7962-169]
S. Khullar, Rochester Institute of Technology (United States) and The Mind Research Network (United States); A. M. Michael, The Mind Research Network (United States); N. Correa, T. Adali, Univ. of Maryland (United States); S. A. Baum, Rochester Institute of Technology (United States); V. D. Calhoun, The Mind Research Network (United States) and Rochester Institute of Technology (United States) and Univ. of New Mexico (United States)
- 7962 4R **Phase-unwrapping of differential phase-contrast data using attenuation information** [7962-172]
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