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Image Processing

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David R. Haynor

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A. A. Abd. Rahni, E. Lewis, K. Wells, Univ. of Surrey (United Kingdom); M. Guy, Medway Maritime Hospital (United Kingdom) and Univ. of Surrey (United Kingdom); B. Goswami, Univ. of Surrey (United Kingdom)
- 7623 2E **A comparison of tracking methods for swimming *C. elegans*** [7623-85]
C. Restif, D. Metaxas, Rutgers Univ. (United States)
- 7623 2F **An observation model for motion correction in nuclear medicine** [7623-86]
M. R. Alnowami, E. Lewis, Univ. of Surrey (United Kingdom); M. Guy, Medway Maritime Hospital (United Kingdom); K. Wells, Univ. of Surrey (United Kingdom)
- 7623 2G **Image-based motion estimation for cardiac CT via image registration** [7623-87]
J. Cammin, K. Taguchi, The Johns Hopkins Univ. School of Medicine (United States)

Part Two

- 7623 2I **Third brain ventricle deformation analysis using fractional differentiation and evolution strategy in brain cine-MRI** [7623-89]
A. Nakib, F. Aiboud, Lab. Images, Signaux et Systèmes Intelligents (France); J. Hodel, Ctr. Hospitalier Univ. Henri Mondor, LBM ENSAM-CNRS (France); P. Siarry, Lab. Images, Signaux et Systèmes Intelligents (France); P. Decq, Ctr. Hospitalier Univ. Henri Mondor, LBM ENSAM-CNRS (France)
- 7623 2J **Endoscopic egomotion computation** [7623-90]
T. Bergen, S. Ruthotto, S. Rupp, C. Winter, C. Münzenmayer, Fraunhofer Institute for Integrated Circuits (Germany)

POSTER SESSION: REGISTRATION

- 7623 2K **Diffeomorphic demons using normalized mutual information, evaluation on multimodal brain MR images** [7623-91]
M. Modat, Univ. College London (United Kingdom); T. Vercauteren, Mauna Kea Technologies (France); G. R. Ridgway, D. J. Hawkes, N. C. Fox, S. Ourselin, Univ. College London (United Kingdom)
- 7623 2L **Evaluation of five non-rigid image registration algorithms using the NIREP framework** [7623-92]
Y. Wei, G. E. Christensen, J. H. Song, D. Rudrauf, J. Bruss, J. G. Kuhl, The Univ. of Iowa (United States); T. J. Grabowski, Univ. of Washington (United States)
- 7623 2M **Reliable fusion of knee bone laser scans to establish ground truth for cartilage thickness measurement** [7623-93]
M.-C. Chang, GE Global Research Ctr. (United States); N. H. Trinh, Brown Univ. (United States); B. C. Fleming, Brown Medical School (United States); B. B. Kimia, Brown Univ. (United States)
- 7623 2N **Multicontrast MRI registration of carotid arteries in atherosclerotic and normal subjects** [7623-94]
L. Biasioli, Univ. of Oxford (United Kingdom) and Oxford Ctr. for Clinical Magnetic Resonance Research (United Kingdom); J. A. Noble, Univ. of Oxford (United Kingdom); M. D. Robson, Univ. of Oxford (United Kingdom) and Oxford Ctr. for Clinical Magnetic Resonance Research (United Kingdom)
- 7623 2P **Cylindrical affine transformation model for image registration** [7623-96]
C. Tanner, ETH Zürich (Switzerland) and Univ. College London (United Kingdom); T. Carter, D. Hawkes, Univ. College London (United Kingdom); G. Székely, ETH Zürich (Switzerland)

- 7623 2Q **An improved 3D shape context registration method for non-rigid surface registration** [7623-97]
D. Xiao, Commonwealth Scientific and Industrial Research Organisation (Australia);
D. Zahra, Australian Nuclear Science and Technology Organisation (Australia); P. Bourgeat,
Commonwealth Scientific and Industrial Research Organisation (Australia); P. Berghofer,
Australian Nuclear Science and Technology Organisation (Australia); O. Acosta Tamayo,
Commonwealth Scientific and Industrial Research Organisation (Australia); C. Wimberley,
M. Claude Gregoire, Australian Nuclear Science and Technology Organisation (Australia);
O. Salvado, Commonwealth Scientific and Industrial Research Organisation (Australia)
- 7623 2R **Optical flow based deformable volume registration using a novel second-order regularization prior** [7623-98]
S. Grbić, M. Urschler, T. Pock, H. Bischof, Graz Univ. of Technology (Austria)
- 7623 2S **Automatic estimation of registration parameters: image similarity and regularization** [7623-99]
T. R. Langerak, U. A. van der Heide, A. N. T. J. Kotte, J. P. W. Pluim, Univ. Medical Ctr. Utrecht (Netherlands)
- 7623 2T **LCC demons with divergence term for liver MRI motion correction** [7623-100]
J. Oh, Georgia Institute of Technology (United States); D. Martin, Emory Univ. (United States);
O. Skrinjar, Georgia Institute of Technology (United States)
- 7623 2U **Towards analysis of growth trajectory through multimodal longitudinal MR imaging** [7623-101]
N. Sadeghi, M. Prastawa, Univ. of Utah (United States); J. H. Gilmore, W. Lin, Univ. of North Carolina (United States); G. Gerig, Univ. of Utah (United States)
- 7623 2V **A fast rigid-registration method of inferior limb x-ray image and 3D CT images for TKA surgery** [7623-102]
F. Ito, P. O.D.A, I. Uwano, K. Ito, Iwate Prefectural Univ. (Japan)
- 7623 2W **Detection of stable mammographic features under compression using simulated mammograms** [7623-103]
Y. M. Jafar, J. H. Hipwell, C. Tanner, D. J. Hawkes, Univ. College London (United Kingdom)
- 7623 2X **Improving fluid registration through white matter segmentation in a twin study design** [7623-104]
Y.-Y. Chou, N. Lepore, C. Brun, M. Barysheva, Univ. of California, Los Angeles (United States);
K. McMahon, G. I. de Zubicaray, The Univ. of Queensland (Australia); M. J. Wright,
Queensland Institute of Medical Research (Australia); A. W. Toga, P. M. Thompson, Univ. of California, Los Angeles (United States)
- 7623 2Y **Direction-dependent regularization for improved estimation of liver and lung motion in 4D image data** [7623-105]
A. Schmidt-Richberg, J. Ehrhardt, R. Werner, H. Handels, Univ. Medical Ctr. Hamburg-Eppendorf (Germany)
- 7623 2Z **An intensity-based approach to x-ray mammography: MRI registration** [7623-106]
T. Mertzaniidou, J. H. Hipwell, Univ. College London (United Kingdom); C. Tanner, ETH Zürich (Switzerland); D. J. Hawkes, Univ. College London (United Kingdom)

- 7623 30 **3D ultrasound volume stitching using phase symmetry and harris corner detection for orthopaedic applications** [7623-107]
R. Dalvi, I. Hacihaliloglu, R. Abugharbieh, The Univ. of British Columbia (Canada)
- 7623 31 **Multi-Modality fiducial marker for validation of registration of medical images with histology** [7623-108]
R. Shojaii, A. L. Martel, Univ. of Toronto (Canada) and Sunnybrook Health Sciences Ctr. (Canada)
- 7623 32 **Fast correspondences search in anatomical trees** [7623-109]
T. R. dos Santos, I. Gergel, H-P. Meinzer, L. Maier-Hein, German Cancer Research Ctr. (Germany)
- 7623 33 **Evaluation of an efficient GPU implementation of digitally reconstructed radiographs in 3D/2D image registration** [7623-110]
C. Zhang, M.-C. Villa-Uriol, Univ. Pompeu Fabra (Spain) and Networking Research Ctr. on Bioengineering (Spain); A. F. Frangi, Univ. Pompeu Fabra (Spain) and Networking Research Ctr. on Bioengineering (Spain) and Institució Catalana de Recerca i Estudis Avançats (Spain)
- 7623 34 **Markov random field optimization for intensity-based 2D-3D registration** [7623-111]
D. Zikic, B. Glocker, O. Kutter, M. Groher, Technische Univ. München (Germany); N. Komodakis, Univ. of Crete (Greece); A. Khamene, Siemens Corp. Research (United States); N. Paragios, Lab. MAS, Ecole Centrale Paris (France) and Equipe GALEN, INRIA Saclay (France); N. Navab, Technische Univ. München (Germany)
- 7623 35 **Image similarity metrics in image registration** [7623-112]
A. Melbourne, G. Ridgway, D. J. Hawkes, Univ. College London (United Kingdom)
- 7623 36 **Registration-based interpolation applied to cardiac MRI** [7623-113]
H. Ólafsdóttir, Technical Univ. of Denmark (Denmark); H. Pedersen, Technical Univ. of Denmark (Denmark) and Glostrup Hospital (Denmark); M. S. Hansen, M. Lyksborg, M. F. Hansen, S. Darkner, R. Larsen, Technical Univ. of Denmark (Denmark)
- 7623 37 **Automated algorithm for atlas-based segmentation of the heart and pericardium from non-contrast CT** [7623-114]
D. Dey, Cedars-Sinai Medical Ctr. (United States) and Univ. of California, Los Angeles (United States); A. Ramesh, Cedars-Sinai Medical Ctr. (United States); P. J. Slomka, Cedars-Sinai Medical Ctr. (United States) and Univ. of California, Los Angeles (United States); R. Nakazato, V. Y. Cheng, Cedars-Sinai Medical Ctr. (United States); G. Germano, D. S. Berman, Cedars-Sinai Medical Ctr. (United States) and Univ. of California, Los Angeles (United States)
- 7623 38 **Mosaicing of microscope images in the presence of large areas with insufficient information content** [7623-115]
Y. Arzhaeva, P. Vallotton, C. Sun, Commonwealth Scientific and Industrial Research Organisation (Australia)
- 7623 39 **Volume-constrained image registration for pre- and post-operative CT liver data** [7623-116]
B. Beuthien, Univ. of Lübeck (Germany); N. Papenberg, S. Heldmann, Fraunhofer MEVIS (Germany); B. Fischer, Univ. of Lübeck (Germany)

- 7623 3A **Medical image registration using the modified conditional entropy measure combining the spatial and intensity information** [7623-117]
M.-E. Lee, S.-H. Kim, W.-H. Cho, S.-W. Kim, J.-H. Park, Chonnam National Univ. (Korea, Republic of); S.-Y. Park, Mokpo National Univ. (Korea, Republic of); J.-S. Lim, Chonnam National Univ. (Korea, Republic of)

POSTER SESSION: IMAGE RESTORATION AND ENHANCEMENT

- 7623 3B **Improving arterial spin labeling data by temporal filtering** [7623-118]
J. Petr, INRIA (France) and Univ. of Rennes I, CNRS, UMR 6074 (France) and INSERM (France); J.-C. Ferre, J.-Y. Gauvrit, INRIA (France) and Univ. Hospital of Rennes (France) and Univ. of Rennes I, CNRS, UMR 6074 (France) and INSERM (France); C. Barillot, INRIA (France) and Univ. of Rennes I, CNRS, UMR 6074 (France) and INSERM (France)
- 7623 3C **Compact rotation invariant descriptor for non-local means** [7623-119]
N. Dowson, O. Salvado, Australian e-Health Research Ctr., CSIRO (Australia)
- 7623 3D **Novel registration-based image enhancement for x-ray fluoroscopy** [7623-120]
A. Dixon, R. Areste, K. N. Jabri, V. Walimbe, GE Healthcare (United States)
- 7623 3E **Application of a modified regularization procedure for estimating oxygen tension in large retinal blood vessels** [7623-121]
I. Yildirim, Univ. of Illinois at Chicago (United States) and Istanbul Teknik Üniv. (Turkey); R. Ansari, Univ. of Illinois at Chicago (United States); I. Samil Yetik, Illinois Institute of Technology (United States); M. Shahidi, Univ. of Illinois at Chicago (United States)

POSTER SESSION: SEGMENTATION

- 7623 3F **Automated extraction method for the center line of spinal canal and its application to the spinal curvature quantification in torso x-ray CT images** [7623-122]
T. Hayashi, X. Zhou, H. Chen, T. Hara, K. Miyamoto, T. Kobayashi, R. Yokoyama, M. Kanematsu, H. Hoshi, H. Fujita, Gifu Univ. School of Medicine (Japan)
- 7623 3G **Closing of interrupted vascular segmentations: an automatic approach based on shortest paths and level sets** [7623-123]
N. D. Forkert, A. Schmidt-Richberg, D. Säring, T. Illies, J. Fiehler, H. Handels, Univ. Medical Ctr. Hamburg-Eppendorf (Germany)
- 7623 3H **Multiscale topo-morphologic opening of arteries and veins: a validation study on phantoms and CT imaging of pulmonary vessel casting of pigs** [7623-124]
Z. Gao, C. Holtze, M. Sonka, E. Hoffman, P. K. Saha, The Univ. of Iowa (United States)
- 7623 3I **Image segmentation using the student's t-test and the divergence of direction on spherical regions** [7623-125]
G. Stetten, Univ. of Pittsburgh (United States) and Carnegie Mellon Univ. (United States); S. Horvath, Univ. of Pittsburgh (United States); J. Galeotti, Carnegie Mellon Univ. (United States); G. Shukla, B. Wang, B. Chapman, Univ. of Pittsburgh (United States)

- 7623 3J **Aorta segmentation in non-contrast cardiac CT images using an entropy-based cost function** [7623-126]
O. C. Avila-Montes, U. Kukure, I. A. Kakadiaris, Univ. of Houston (United States)
- 7623 3K **A skull segmentation method for brain MR images based on multiscale bilateral filtering scheme** [7623-127]
X. Yang, B. Fei, Emory Univ. (United States)
- 7623 3L **A skull stripping method using deformable surface and tissue classification** [7623-128]
X. Tao, M.-C. Chang, GE Global Research Ctr. (United States)
- 7623 3M **Intracranial aneurysm segmentation in 3D CT angiography: method and quantitative validation** [7623-129]
A. Firouzian, R. Manniesing, Z. H. Flach, R. Risselada, F. van Kooten, M. C. J. M. Sturkenboom, A. van der Lugt, Univ. Medical Ctr. Rotterdam (Netherlands); W. J. Niessen, Univ. Medical Ctr. Rotterdam (Netherlands) and Delft Univ. of Technology (Netherlands)
- 7623 3N **Segmentation of the thalamus in multi-spectral MR images using a combination of atlas-based and gradient graph cut methods** [7623-130]
R. Datteri, Vanderbilt Univ. (United States); C. Barillot, INRIA, IRISA, CNRS, INSERM (France); B. M. Dawant, Vanderbilt Univ. (United States); J. Lecoecur, INRIA, IRISA, CNRS, INSERM (France)
- 7623 3O **Automated lung tumor segmentation for whole body PET volume based on novel downhill region growing** [7623-131]
C. Ballangan, X. Wang, The Univ. of Sydney (Australia); S. Eberl, M. Fulham, The Univ. of Sydney (Australia) and Royal Prince Alfred Hospital (Australia); D. Feng, The Univ. of Sydney (Australia) and Hong Kong Polytechnic Univ. (Hong Kong, China)
- 7623 3P **'Active contour without edges', on parametric manifolds** [7623-132]
Y. Gao, A. Tannenbaum, Georgia Institute of Technology (United States)
- 7623 3Q **Blood vessel segmentation using line-direction vector based on Hessian analysis** [7623-133]
Y. Nimura, Nagoya Univ. (Japan); T. Kitasaka, Aichi Institute of Technology (Japan); K. Mori, Nagoya Univ. (Japan)
- 7623 3R **Brain segmentation performance using T1-weighted images versus T1 maps** [7623-134]
X. Li, C. Wyatt, Virginia Tech. (United States)
- 7623 3S **Detection of small human cerebral cortical lesions with MRI under different levels of Gaussian smoothing: applications in epilepsy** [7623-135]
D. Cantor-Rivera, M. Goubran, Robarts Research Institute (Canada) and The Univ. of Western Ontario (Canada); A. Kraguljac, Robarts Research Institute (Canada); R. Bartha, T. Peters, Robarts Research Institute (Canada) and The Univ. of Western Ontario (Canada)
- 7623 3T **Automated method for tracing leading and trailing processes of migrating neurons in confocal image sequences** [7623-136]
R. A. Kerekes, S. S. Gleason, Oak Ridge National Lab. (United States); N. Trivedi, D. J. Solecki, St. Jude Children's Research Hospital (United States)

- 7623 3U **Quantitative CT for volumetric analysis of medical images: initial results for liver tumors** [7623-137]
A. S. Behnaz, Georgetown Univ. (United States) and George Mason Univ. (United States); J. Snider, C. Eneh, G. Esposito, E. Wilson, Z. Yaniv, E. Cohen, K. Cleary, Georgetown Univ. (United States)
- 7623 3V **Multi-object segmentation using coupled shape space models** [7623-138]
T. Schwarz, German Cancer Research Ctr. (Germany); T. Heimann, INRIA Research Ctr. (France); D. Lossnitzer, C. Mohrhardt, H. Steen, Univ. Clinics Heidelberg (Germany); U. Rietdorf, German Cancer Research Ctr. (Germany); I. Wolf, Univ. of Mannheim (Germany); H.-P. Meinzer, German Cancer Research Ctr. (Germany)
- 7623 3W **Automatic recognition and validation of the common carotid artery wall segmentation in 100 longitudinal ultrasound images: an integrated approach using feature selection, fitting and classification** [7623-139]
F. Molinari, Politecnico di Torino (Italy); G. Zeng, Clemson Univ. (United States); J. S. Suri, Biomedical Technologies (United States) and Univ. of Idaho (United States)
- 7623 3X **Automated fat measurement and segmentation with intensity inhomogeneity correction** [7623-141]
D. L. Sussman, J. Yao, R. M. Summers, National Institutes of Health (United States)
- 7623 3Y **A novel fast liver segmentation method with graph cuts** [7623-142]
F. Yang, W. Zhai, Y. Zhao, H. Wang, P. Jia, Tsinghua Univ. (China)
- 7623 3Z **Thrombus segmentation by texture dynamics from microscopic image sequences** [7623-143]
N. Brieu, Technische Univ. München (Germany); J. Serbanovic-Canic, Wellcome Trust Sanger Institute (United Kingdom); A. Cvejic, D. Stemple, Wellcome Trust Sanger Institute (United Kingdom) and Univ. of Cambridge (United Kingdom); W. Ouwehand, Wellcome Trust Sanger Institute (United Kingdom) and Univ. of Cambridge (United Kingdom) and National Health Service Blood and Transplant (United Kingdom); N. Navab, M. Groher, Technische Univ. München (Germany)
- 7623 40 **Relaxed image foresting transforms for interactive volume image segmentation** [7623-144]
F. Malmberg, I. Nyström, Uppsala Univ. (Sweden); A. Mehnert, C. Engstrom, The Univ. of Queensland (Australia); E. Bengtsson, Uppsala Univ. (Sweden)
- 7623 41 **Digital bowel cleansing for virtual colonoscopy with probability map** [7623-145]
W. Hong, F. Qiu, Siemens Corp. Research (United States)
- 7623 42 **Optimal combination of multiple cortical surface parcellations** [7623-146]
X. Hu, L. Guo, G. Li, Northwestern Polytechnical Univ. (China); K. Li, Northwestern Polytechnical Univ. (China) and The Univ. of Georgia (United States); T. Liu, The Univ. of Georgia (United States)
- 7623 43 **A multi-scale approach to mass segmentation using active contour models** [7623-147]
H. Yu, L. Li, W. Xu, W. Liu, Hangzhou Dianzi Univ. (China)

- 7623 44 **Statistical fusion of surface labels provided by multiple raters** [7623-148]
J. A. Bogovic, Johns Hopkins Univ. (United States); B. A. Landman, Johns Hopkins Univ. (United States) and Vanderbilt Univ. (United States); P.-L. Bazin, J. L. Prince, Johns Hopkins Univ. (United States)
- 7623 45 **Ball-scale based hierarchical multi-object recognition in 3D medical images** [7623-149]
U. Bağcı, The Univ. of Nottingham (United Kingdom); J. K. Udupa, Univ. of Pennsylvania (United States); X. Chen, National Institute of Health (United States)
- 7623 46 **Automatic segmentation of the aorta and the adjoining vessels** [7623-150]
T. Stutzmann, J. Hesser, Univ. of Heidelberg (Germany); W. Völker, M. Dobhan, Univ. of Würzburg (Germany)
- 7623 47 **A completely automated processing pipeline for lung and lung lobe segmentation and its application to the LIDC-IDRI data base** [7623-151]
T. Blaffert, R. Wiemker, H. Barschdorf, S. Kabus, T. Klinder, C. Lorenz, N. Schadewaldt, Philips Research Europe (Germany); E. Dharaiya, Philips Healthcare CT (United States)
- 7623 48 **Gyrat parcellation of cortical surfaces via coupled flow field tracking** [7623-152]
G. Li, L. Guo, Northwestern Polytechnical Univ. (China); K. Li, Northwestern Polytechnical Univ. (China) and The Univ. of Georgia (United States); J. Nie, Northwestern Polytechnical Univ. (China); T. Liu, The Univ. of Georgia (United States)
- 7623 49 **Segmentation of deformable organs from medical images using particle swarm optimization and nonlinear shape priors (Cum Laude Poster Award)** [7623-153]
A. Afifi, T. Nakaguchi, N. Tsumura, Chiba Univ. (Japan)
- 7623 4A **Fuzzy affinity induced curve evolution** [7623-154]
Y. Zhuge, National Cancer Institute (United States); J. K. Udupa, Univ. of Pennsylvania (United States); R. W. Miller, National Cancer Institute (United States)
- 7623 4B **Multi-structure segmentation of multi-modal brain images using artificial neural networks** [7623-155]
E. Y. Kim, H. Johnson, The Univ. of Iowa (United States)
- 7623 4C **Segmentation of cervical cell images using mean-shift filtering and morphological operators** [7623-156]
C. Bergmeir, M. García Silvente, Univ. of Granada (Spain); J. Esquivias López-Cuervo, Hospital Univ. San Cecilio (Spain); J. M. Benítez, Univ. of Granada (Spain)
- 7623 4D **Multilevel wireless capsule endoscopy video segmentation** [7623-157]
S. Hwang, Univ. of Illinois at Springfield (United States); M. E. Celebi, Louisiana State Univ. (United States)
- 7623 4E **A probability tracking approach to segmentation of ultrasound prostate images using weak shape priors** [7623-158]
R. S. Xu, O. V. Michailovich, I. Solovey, M. M. A. Salama, Univ. of Waterloo (Canada)

- 7623 4F **A new osteophyte segmentation method with applications to an anterior cruciate ligament transection rabbit femur model via micro-CT imaging** [7623-159]
G. Liang, J. M. Elkins, The Univ. of Iowa (United States); A. Coimbra, L. T. Duong, D. S. Williams, Merck Research Labs. (United States); M. Sonka, P. K. Saha, The Univ. of Iowa (United States)
- 7623 4G **Segmentation of blurry object by learning from examples** [7623-160]
X. Yuan, Univ. of North Texas (United States)
- 7623 4H **Computer-aided detection of bladder tumors based on the thickness mapping of bladder wall in MR images** [7623-161]
H. Zhu, Stony Brook Univ. (United States); C. Duan, Stony Brook Univ. (United States) and Peking Univ. (China); R. Jiang, Stony Brook Univ. (United States); L. Li, City Univ. of New York at College of Staten Island (United States); Y. Fan, X. Yu, W. Zeng, X. Gu, Z. Liang, Stony Brook Univ. (United States)
- 7623 4I **Validation and detection of vessel landmarks by using anatomical knowledge** [7623-162]
T. Beck, Karlsruhe Institute of Technology (Germany) and Siemens Healthcare (Germany); D. Bernhardt, Siemens Healthcare (Germany); C. Biermann, Siemens Healthcare (Germany) and Eberhard-Karls-Univ. of Tuebingen (Germany); R. Dillmann, Karlsruhe Institute of Technology (Germany)
- 7623 4J **Automatic optic disc segmentation based on image brightness and contrast** [7623-163]
S. Lu, J. Liu, J. H. Lim, Z. Zhang, N. M. Tan, W. K. Wong, H. Li, Institute for Infocomm Research (Singapore); T. Y. Wong, Singapore National Eye Ctr. (Singapore)
- 7623 4K **Segmentation of blood clot from CT pulmonary angiographic images using a modified seeded region growing algorithm method** [7623-164]
B. Park, A. Furlan, A. Patil, K. T. Bae, Univ. of Pittsburgh (United States)
- 7623 4L **Development of an acquisition protocol and a segmentation algorithm for wounds of cutaneous Leishmaniasis in digital images** [7623-165]
K. Diaz, B. Castañeda, Pontificia Univ. Católica del Perú (Peru); C. Miranda, Univ. Peruana Cayetano Heredia (Peru); R. Lavarello, Univ. of Illinois at Urbana-Champaign (United States); A. Llanos, Univ. Peruana Cayetano Heredia (Peru)
- 7623 4M **Interactive segmentation method with graph cut and SVMs** [7623-166]
X. Zhang, J. Tian, D. Xiang, Y. Wu, Institute of Automation (China)
- 7623 4N **Segmentation of light and dark hair in dermoscopic images: a hybrid approach using a universal kernel** [7623-167]
N. H. Nguyen, Simon Fraser Univ. (Canada) and BC Cancer Agency (Canada); T. K. Lee, Simon Fraser Univ. (Canada) and BC Cancer Agency (Canada) and Univ. of British Columbia (Canada); M. S. Atkins, Simon Fraser Univ. (Canada)
- 7623 4O **Volumetric segmentation of trabecular bone into rods and plates: a new method based on local shape classification** [7623-168]
E. Brun, Univ. of California Santa Barbara (United States); J. Vicente, Lab. IUSTI, Univ. de Provence (France)
- 7623 4P **Image enhancement and edge-based mass segmentation in mammogram** [7623-169]
Y. Zhang, N. Tomuro, J. Furst, D. Stan Raicu, DePaul Univ. (United States)

POSTER SESSION: SHAPE

- 7623 4Q **Database guided detection of anatomical landmark points in 3D images of the heart** [7623-170]
T. Karavides, Erasmus MC Rotterdam (Netherlands) and Delft Univ. of Technology (Netherlands); K. Y. Esther Leung, Erasmus MC Rotterdam (Netherlands); P. Paclik, PR Sys Design (Netherlands); E. A. Hendriks, Delft Univ. of Technology (Netherlands); J. G. Bosch, Erasmus MC Rotterdam (Netherlands)
- 7623 4R **Partial volume correction using cortical surfaces** [7623-171]
K. R. Blaasvæ, C. D. Haubro, S. F. Eskildsen, Aalborg Univ. (Denmark); P. Borghammer, Aarhus Univ. Hospital (Denmark); D. Otzen, Aarhus Univ. (Denmark); L. R. Østergaard, Aalborg Univ. (Denmark)
- 7623 4S **Adaptive model based pulmonary artery segmentation in 3D chest CT** [7623-172]
M. Feuerstein, Nagoya Univ. (Japan); T. Kitasaka, Aichi Institute of Technology (Japan) and Nagoya Univ. (Japan); K. Mori, Nagoya Univ. (Japan)
- 7623 4T **A combined voxel and surface based method for topology correction of brain surfaces** [7623-173]
F. Gris, Australian e-Health Research Ctr. (Australia) and Ecole Nationale Supérieure de Physique de Strasbourg (France) and Univ. de Strasbourg (France); J-M. Favreau, Univ. Blaise Pascal (France); O. Acosta, Australian e-Health Research Ctr. (Australia); V. Barra, Univ. Blaise Pascal (France); O. Salvado, Australian e-Health Research Ctr. (Australia)
- 7623 4U **3D bone mineral density distribution and shape reconstruction of the proximal femur from a single simulated DXA image: an in vitro study** [7623-174]
T. Whitmarsh, L. Humbert, Univ. Pompeu Fabra (Spain) and Networking Research Ctr. on Bioengineering (Spain); M. De Craene, Networking Research Ctr. on Bioengineering (Spain) and Univ. Pompeu Fabra (Spain); L. M. del Río Barquero, CETIR Ctr. Mèdic (Spain); K. Fritscher, R. Schubert, Institute for Biomedical Image Analysis, UMIT (Austria); F. Eckstein, Paracelsus Medical Univ. (Austria); T. Link, Univ. of California, San Francisco (United States); A. F. Frangi, Univ. Pompeu Fabra (Spain) and Networking Research Ctr. on Bioengineering (Spain) and Institució Catalana de Recerca i Estudis Avançats (Spain)
- 7623 4V **Model-based segmentation of pathological lymph nodes in CT data** [7623-175]
L. Dornheim, Otto-von-Guericke-Univ. (Germany) and Dorheim Medical Images GmbH (Germany); J. Dornheim, I. Rössling, T. Mönch, Otto-von-Guericke-Univ. (Germany)
- 7623 4W **Evaluation of manual and computerized methods for the determination of axial vertebral rotation** [7623-176]
T. Vrtovec, F. Pernuš, B. Likar, Univ. of Ljubljana (Slovenia)
- 7623 4X **Sparse active shape models: influence of the interpolation kernel on segmentation accuracy and speed** [7623-177]
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