Part 2

POSTERS: ABDOMINAL

7624 1T Towards automatic determination of total tumor burden from PET images [7624-63]
S. Renisch, R. Opfer, R. Wiemker, Philips Research Europe (Germany)

7624 1U Development of CAD prototype system for Crohn's disease [7624-64]
M. Oda, Nagoya Univ. (Japan); T. Kitasaka, Aichi Institute of Technology (Japan) and Nagoya Univ. (Japan); K. Furukawa, O. Watanabe, T. Ando, H. Goto, K. Mori, Nagoya Univ. (Japan)

7624 1V Eigenvalue-weighting and feature selection for computer-aided polyp detection in CT colonography [7624-65]
H. Zhu, S. Wang, Y. Fan, Stony Brook Univ. (United States); H. Lu, Fourth Military Medical Univ. (China); Z. Liang, Stony Brook Univ. (United States)

7624 1W Segmentation of polycystic kidneys from MR images [7624-67]
D. Racimora, New York Univ. Medical Ctr. (United States); P.-H. Vivier, Univ. of Rouen School of Medicine (France); H. Chandarana, H. Rusinek, New York Univ. Medical Ctr. (United States)

7624 1X A model based method for recognizing psoas major muscles in torso CT images [7624-68]
N. Kamiya, X. Zhou, H. Chen, T. Hara, Gifu Univ. (Japan); R. Yokoyama, M. Kanematsu, Gifu Univ. Hospital (Japan); H. Hoshi, H. Fujita, Gifu Univ. (Japan)

7624 1Y Accurate motion parameter estimation for colonoscopy tracking using a regression method [7624-70]
J. Liu, K. R. Subramanian, The Univ. of North Carolina at Charlotte (United States); T. S. Yoo, National Library of Medicine, NIH (United States)

7624 1Z Segmentation of liver portal veins by global optimization [7624-71]
P. Bruyninckx, D. Loeckx, D. Vandermeulen, P. Suetens, Katholieke Univ. Leuven (Belgium)

7624 20 Haustral fold registration in CT colonography and its application to registration of virtual stretched view of the colon [7624-72]
E. Fukano, M. Oda, Nagoya Univ. (Japan); T. Kitasaka, Y. Suenaga, Nagoya Univ. (Japan) and Aichi Institute of Technology (Japan); T. Takayama, Univ. of Tokushima (Japan); H. Takabatake, Minami Sanjyo Hospital (Japan); M. Mori, Sapporo Kosei Hospital (Japan); H. Natori, Keiwakai Nishioka Hospital (Japan); S. Nawano, International Univ. of Health and Welfare (Japan); K. Mori, Nagoya Univ. (Japan)
7624 21 An open source implementation of colon CAD in 3D slicer [7624-73]
H. Xu, H. D. Gage, P. Santiago, Wake Forest Univ. (United States) and Virginia Tech - Wake Forest Univ. (United States)

7624 22 Prostate cancer region prediction using MALDI mass spectra [7624-74]
A. Vadlamudi, S.-H. Chuang, X. Sun, Old Dominion Univ. (United States); L. Cazares, J. Nyalwidhe, D. Troyer, O. J. Semmes, Eastern Virginia Medical School (United States); J. Li, F. D. McKenzie, Old Dominion Univ. (United States)

7624 23 Automated scheme for measuring polyp volume in CT colonography using Hessian matrix-based shape extraction and 3D volume growing [7624-75]
K. Suzuki, M. L. Epstein, J. Xu, P. Obara, D. C. Rockey, A. H. Dachman, The Univ. of Chicago (United States) and The Univ. of Texas Southwestern Medical Ctr. at Dallas (United States)

POSTERS: BRAIN

7624 24 Computerized evaluation method of white matter hyperintensities related to subcortical vascular dementia in brain MR images [7624-76]
H. Arimura, Kyushu Univ. (Japan); Y. Kawata, Hitachi Medical Corp. (Japan); Y. Yamashita, T. Magome, M. Ohki, F. Toyofuku, Y. Higashida, Kyushu Univ. (Japan); K. Tsuchiya, Kyorin Univ. (Japan)

7624 25 Prediction of brain tumor progression using a machine learning technique [7624-77]
Y. Shen, D. Banerjee, J. Li, Old Dominion Univ. (United States); A. Chandler, GE Healthcare (United Kingdom); Y. Shen, F. D. McKenzie, Old Dominion Univ. (United States); J. Wang, The Univ. of Texas M.D. Anderson Cancer Ctr. (United States)

7624 26 Parkinson's disease prediction using diffusion-based atlas approach [7624-78]
R. O. Teodorescu, Politehnica Univ. Timisoara (Romania), Univ. de Franche-Comté (France), and Image & Pervasive Access Lab., CNRS (Singapore); D. Racoceanu, Univ. de Franche-Comté (France), Ctr. National de la Recherche Scientifique (France), and Image & Pervasive Access Lab., CNRS (Singapore); N. Smit, Image & Pervasive Access Lab., CNRS (Singapore) and Institut Supérieur de l'Électronique et du Numérique (France); V. I. Cretu, Politehnica Univ. Timisoara (Romania); E. K. Tan, L. L. Chan, Singapore General Hospital (Singapore)

7624 27 TBIdoc: 3D content-based CT image retrieval system for traumatic brain injury [7624-79]
S. Li, T. Gong, J. Wang, R. Liu, C. L. Tan, T. Y. Leong, National Univ. of Singapore (Singapore); B. C. Pang, C. C. T. Lim, C. K. Lee, National Neuroscience Institute (Singapore); Q. Tian, Z. Zhang, A*STAR Institute for Infocomm Research (Singapore)

7624 28 Shape similarity analysis of regions of interest in medical images [7624-80]
Q. Wang, National Institute of Allergy and Infectious Diseases (United States) and Temple Univ. (United States); A.Charisi, Univ. of Patras (Greece); L. J. Latecki, Temple Univ. (United States); J. Gee, Univ. of Pennsylvania (United States); V. Megalooikonomou, Univ. of Patras (Greece) and Temple Univ. (United States)
7624 29 Population analysis of the cingulum bundle using the tubular surface model for schizophrenia detection [7624-81]
V. Mohan, Georgia Institute of Technology (United States); G. Sundaramoorthi, Univ. of California, Los Angeles (United States); M. Kubicki, D. Terry, Brigham and Women's Hospital (United States); A. Tannenbaum, Georgia Institute of Technology (United States)

7624 2A Robustness of interactive intensity thresholding based breast density assessment in MR-mammography [7624-82]
S. Reed, G. Ertas, S. Doran, Institute of Cancer Research and Royal Marsden (United Kingdom); R. M. Warren, Univ. of Cambridge (United Kingdom); M. O. Leach, Institute of Cancer Research and Royal Marsden (United Kingdom)

POSTERS: BREAST

7624 2B Repeatability and classifier bias in computer-aided diagnosis for breast ultrasound [7624-83]
K. Drukker, L. L. Pesce, M. L. Giger, The Univ. of Chicago (United States)

7624 2C Effect of variable gain on computerized texture analysis on digitized mammograms [7624-84]
H. Li, M. L. Giger, L. Lan, Y. Yuan, N. Bhooshan, O. I. Olopade, The Univ. of Chicago (United States)

7624 2D Breast MRI intensity non-uniformity correction using mean-shift [7624-85]
A. Makarau, H. Huisman, R. Mus, M. Zijp, N. Karssemeijer, Radboud Univ. Nijmegen Medical Ctr. (Netherlands)

7624 2E Improving performance and reliability of interactive CAD schemes [7624-86]
X.-H. Wang, S. C. Park, J. Tan, J. K. Leader, B. Zheng, Univ. of Pittsburgh (United States)

7624 2F Automated estimation of breast density on mammogram using combined information of histogram statistics and boundary gradients (Cum Laude Poster Award) [7624-87]
Y. Kim, C. Kim, J.-H. Kim, Seoul National Univ. College of Medicine (Korea, Republic of)

7624 2G Similarity based false-positive reduction for breast cancer using radiographic and pathologic imaging features [7624-88]
A. Pal, R. K. Samala, J. Zhang, W. Qian, The Univ. of Texas at El Paso (United States)

7624 2H Classification of mammographic masses: influence of regions used for feature extraction on the classification performance [7624-89]
F. Wagner, T. Wittenberg, M. Elter, Fraunhofer Institute for Integrated Circuits (Germany)

7624 2I An Improved method for segmentation of mammographic masses [7624-90]
M. Elter, C. Held, Fraunhofer Institute for Integrated Circuits (Germany)

7624 2J Computer-aided diagnosis of digital mammography images using unsupervised clustering and biclustering techniques [7624-91]
M. A. Al-Olfe, F. M. Al-Akwaa, Cairo Univ. (Egypt); W. A. Mohamed, Benha Univ. (Egypt); Y. M. Kadah, Cairo Univ. (Egypt)
**POSTERS: CARDIAC/VASCULAR**

7624 2Q Automatic detection of plaques with severe stenosis in coronary vessels of CT angiography [7624-98]
M. S. Dinesh, P. Devarakota, J. Kumar, Siemens Information Systems Ltd. (India)

7624 2R Automatic lumen segmentation from intravascular OCT images [7624-99]
R. Bourezak, Ecole Polytechnique de Montréal (Canada) and National Research Council Canada (Canada) and Ecole Polytechnique de Montréal (Canada); F. Cheriet, Ecole Polytechnique de Montréal (Canada)

7624 2S Automated myocardial perfusion from coronary x-ray angiography [7624-100]
C. J. Storm, Ziekenhuis Walcheren (Netherlands); C. H. Slump, Univ. Twente (Netherlands)

7624 2T An adaptive 3D region growing algorithm to automatically segment and identify thoracic aorta and its centerline using computed tomography angiography scans [7624-101]
F. Ferreira, J. Dehmeshki, Kingston Univ. (United Kingdom); H. Amin, M. E. Dehkordi, MedlAR Ltd. (United Kingdom); A. Belli, St. George's Univ. of London (United Kingdom); A. Jouannic, S. Qanadli, Univ. de Lausanne (Switzerland)

**POSTERS: LUNG**

7624 2U Filter learning and evaluation of the computer aided visualization and analysis (CAVA) paradigm for pulmonary nodules using the LIDC-IDRI database [7624-102]
R. Wiemker, Philips Research Europe (Germany); E. Darraiya, A. Steinberg, Philips Healthcare CT (Israel); T. Buelow, A. Saalbach, T. Vik, Philips Research Europe (Germany)

7624 2V Modeling uncertainty in classification design of a computer-aided detection system [7624-103]
R. Hosseini, J. Dehmeshki, S. Barman, M. Mazinani, Kingston Univ. (United Kingdom); S. Qanadli, Univ. de Lausanne Hospital (Switzerland)

7624 2W Usefulness of texture features for segmentation of lungs with severe diffuse interstitial lung disease [7624-104]
J. Wang, Duke Univ. (United States); F. Li, The Univ. of Chicago (United States); Q. Li, Duke Univ. (United States)
Realistic simulated lung nodule dataset for testing CAD detection and sizing [7624-105]
R. D. Ambrosini, W. G. O'Dell, Univ. of Rochester (United States)

Predicting LIDC diagnostic characteristics by combining spatial and diagnostic opinions [7624-106]
W. H. Horsthemke, D. S. Raicu, J. D. Furst, DePaul Univ. (United States)

Improving CAD performance in pulmonary embolism detection: preliminary investigation [7624-107]
S. C. Park, B. Chapman, C. Deible, S. Lee, B. Zheng, Univ. of Pittsburgh (United States)

Selective reduction of CAD false-positive findings [7624-108]
N. Camarlinghi, Univ. di Pisa (Italy) and Istituto Nazionale di Fisica Nucleare (Italy); I. Gori, Istituto Nazionale di Fisica Nucleare (Italy) and Bracco Imaging (Italy); A. Retico, Istituto Nazionale di Fisica Nucleare (Italy); F. Bagagli, Univ. di Pisa (Italy) and Istituto Nazionale di Fisica Nucleare (Italy)

A model for the relationship between semantic and content based similarity using LIDC [7624-109]
G. Dasovich, Northwestern Univ. (United States); R. Kim, The Johns Hopkins Univ. (United States); D. S. Raicu, J. D. Furst, DePaul Univ. (United States)

Variation compensation and analysis on diaphragm curvature analysis for emphysema quantification on whole lung CT scans [7624-110]
B. M. Keller, A. P. Reeves, Cornell Univ. (United States); R. G. Barr, Columbia Univ. (United States); D. F. Yankelevitz, C. I. Henschke, Weill Cornell Medical College (United States)

POSTERS: MICROSCOPY

Adjacent slice prostate cancer prediction to inform MALDI imaging biomarker analysis [7624-111]
S.-H. Chuang, X. Sun, Old Dominion Univ. (United States); L. Cazares, J. Nyalwidhe, D. Troyer, O. J. Semmes, Eastern Virginia Medical School (United States); J. Li, F. D. McKenzie, Old Dominion Univ. (United States)

Automatic recognition of abnormal cells in cytological tests using multispectral imaging [7624-114]
A. Gertych, G. Galliano, S. Bose, Cedars-Sinai Medical Ctr. (United States); D. L. Farkas, Cedars-Sinai Medical Ctr. (United States) and Univ. of Southern California (United States)

Segmentation of follicular regions on H&E slides using a matching filter and active contour model [7624-115]
K. Belkacem-Boussaid, J. Prescott, G. Lozanski, M. N. Gurcan, The Ohio State Univ. (United States)

POSTERS: RETINA

Classification of left and right eye retinal images [7624-117]
N. M. Tan, J. Liu, D. W. K. Wong, Z. Zhang, S. Lu, J. H. Lim, H. Li, A*STAR Institute for Infocomm Research (Singapore); T. Y. Wong, Singapore Eye Research Institute (Singapore)
Enhancement of optic cup detection through an improved vessel kink detection framework

D. W. K. Wong, J. Liu, N. M. Tan, Z. Zhang, S. Lu, J. H. Lim, H. Li, A*STAR Institute for Infocomm Research (Singapore); T. Y. Wong, National Univ. of Singapore (Singapore) and Singapore Eye Research Institute (Singapore)

Automated measurement of retinal blood vessel tortuosity

V. Joshi, J. M. Reinhardt, M. D. Abramoff, The Univ. of Iowa (United States)

New algorithm for detecting smaller retinal blood vessels in fundus images

R. LeAnder, P. I. Bidari, T. A. Mohammed, M. Das, S. E. Umbaugh, Southern Illinois Univ. Edwardsville (United States)

Vertical cup-to-disc ratio measurement for diagnosis of glaucoma on fundus images

Y. Hatanaka, Univ. of Shiga Prefecture (Japan); A. Noudo, C. Muramatsu, A. Sawada, T. Hara, T. Yamamoto, H. Fujita, Gifu Univ. (Japan)

3D reconstruction of the optic nerve head using stereo fundus images for computer-aided diagnosis of glaucoma

L. Tang, Y. H. Kwon, W. L. M. Alward, E. C. Greenlee, K. Lee, M. K. Garvin, The Univ. of Iowa (United States); M. D. Abràmoff, The Univ. of Iowa (United States) and Veteran’s Administration Medical Ctr. (United States)

Fundus image registration for vestibularis research

V. K. Ithapu, Indian Institute of Technology Guwahati (India); A. Fritsche, A. Oppelt, M. Westhofen, T. M. Deserno, RWTH Aachen (Germany)

Toward automatic phenotyping of retinal images from genetically determined mono- and dizygotic twins using amplitude modulation-frequency modulation methods

P. Soliz, VisionQuest Biomedical, LLC (United States), Univ. of Iowa (United States), and The Univ. of New Mexico (United States); B. Davis, VisionQuest Biomedical, LLC (United States); V. Murray, M. Pattichis, The Univ. of New Mexico (United States); S. Barriga, VisionQuest Biomedical, LLC (United States); S. Russell, The Univ. of Iowa (United States)

Interobserver variability effects on computerized volume analysis of treatment response of head and neck lesions in CT

L. Hadjiiski, H.-P. Chan, M. Ibrahim, B. Sahiner, Univ. of Michigan (United States); S. Gujar, The Johns Hopkins Hospital (United States); S. K. Mukherji, Univ. of Michigan (United States)

Source separation on hyperspectral cube applied to dermatology

J. Mitra, R. Jolivot, F. S. Marzani, P. Vabres, Le2i, CNRS, Univ. de Bourgogne (France)

Segmentation of individual ribs from low-dose chest CT

J. Lee, A. P. Reeves, Cornell Univ. (United States)
A comparison of basic deinterlacing approaches for a computer assisted diagnosis approach of videoscope images [7624-129]
A. Kage, Fraunhofer-Institut für Integrierte Schaltungen (Germany); M. Canto, E. Gorospe, A. Almario, The Johns Hopkins Univ. (United States); C. Münzenmayer, Fraunhofer-Institut für Integrierte Schaltungen (Germany)

Segmentation and classification of dermatological lesions [7624-130]
A. Sáez, B. Acha, C. Serrano, Univ. de Sevilla (Spain)

Pathology detection in medical images based on oriented active appearance models [7624-131]
X. Chen, National Institute of Health, Bethesda (United States); J. K. Udupa, The Univ. of Pennsylvania (United States); A. Alavi, D. A. Torigian, The Univ. of Pennsylvania School of Medicine (United States)

Automated segmentation of mucosal change in rhinosinusitis patients [7624-132]
W. F. Sensakovic, J. M. Pinto, F. M. Baroody, A. Starkey, S. G. Armato III, The Univ. of Chicago (United States)

Diagnosis of disc herniation based on classifiers and features generated from spine MR images [7624-133]
J. Koh, V. Chaudhary, Univ. at Buffalo (United States); G. Dhillon, Proscan Imaging, LLC (United States)

Navigated tracking of skin lesion progression with optical spectroscopy [7624-134]
A. Duliu, T. Lasser, T. Wendler, A. Safi, Technische Univ. München (Germany); S. Ziegler, Klinikum rechts der Isar München (Germany); N. Navab, Technische Univ. München (Germany)

Computer aided diagnosis of osteoporosis using multi-slice CT images [7624-135]
E. Takahashi, S. Saita, Y. Kawata, N. Niki, Univ. of Tokushima (Japan); M. Ito, Nagasaki Univ. School of Medicine (Japan); H. Nishitani, Univ. of Tokushima (Japan); N. Moriyama, National Cancer Ctr. Hospital East (Japan)