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**Norbert J. Pelc**  
*Editors*

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- 7622 23 **Compressive sensing of images with a priori known spatial support** [7622-74]  
A. Manduca, J. D. Trzasko, Z. Li, Mayo Clinic (United States)
- 7622 24 **Direct pharmacokinetic parameter estimation using weighted least squares** [7622-75]  
A. McLennan, M. Brady, Univ. of Oxford (United Kingdom)
- 7622 25 **Noise and bias properties of monoenergetic images from DECT used for attenuation correction with PET/CT and SPECT/CT** [7622-76]  
T. Xia, A. M. Alessio, P. E. Kinahan, Univ. of Washington (United States)

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**SESSION 15 CONE BEAM CT**

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- 7622 26 **Low dose, low noise, and high resolution volume of interest (VOI) imaging in C-arm flat-detector CT** [7622-77]  
D. Kolditz, Y. Kyriakou, W. A. Kalender, Institute of Medical Physics, Friedrich-Alexander-Univ. Erlangen-Nürnberg (Germany)
- 7622 27 **4D-DSA and 4D fluoroscopy: preliminary implementation** [7622-78]  
C. A. Mistretta, E. Oberstar, B. Davis, E. Brodsky, C. M. Strother, Univ. of Wisconsin-Madison (United States)
- 7622 28 **Image reconstruction in cardiac interventions using a small flat-panel detector** [7622-79]  
P. T. Lauzier, J. Tang, Z. Qi, G.-H. Chen, Univ. of Wisconsin-Madison (United States)
- 7622 29 **Investigating the dose distribution in the uncompressed breast with a dedicated CT mammotomography system** [7622-80]  
D. J. Crotty, S. L. Brady, D. C. Jackson, G. I. Toncheva, C. E. Anderson, T. T. Yoshizumi, M. P. Tomai, Duke Univ. (United States)
- 7622 2A **Optimization of system parameters for modulator design in x-ray scatter correction using primary modulation** [7622-81]  
H. Gao, Stanford Univ. (United States); L. Zhu, Georgia Institute of Technology (United States); R. Fahrig, Stanford Univ. (United States)
- 7622 2B **Desktop micro-CT with a nanotube field emission x-ray source for high-resolution cardiac imaging** [7622-82]  
G. Cao, X. Calderon-Colon, L. Burk, Y. Z. Lee, S. Sultana, J. Lu, O. Zhou, The Univ. of North Carolina at Chapel Hill (United States)

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**POSTER SESSION: ALGORITHMS**

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- 7622 2C **Non-convex prior image constrained compressed sensing (NC-PICCS)** [7622-83]  
J. C. Ramírez Giraldo, J. D. Trzasko, S. Leng, C. H. McCollough, A. Manduca, Mayo Clinic (United States)
- 7622 2D **Potential benefit of the CT adaptive statistical iterative reconstruction method for pediatric cardiac diagnosis** [7622-84]  
F. A. Miéville, Ctr. Hospitalier Univ. Vaudois Lausanne (Switzerland) and Univ. of Lausanne (Switzerland); P. Ayestaran, C. Argaud, GE Healthcare Europe (France); E. Rizzo, Ctr. Hospitalier Univ. Vaudois Lausanne (Switzerland) and Univ. of Lausanne (Switzerland); P. Ou, F. Brunelle, Hôpital Necker-Enfants Malades (France); F. Gudinchet, F. Bochud, F. R. Verdun, Ctr. Hospitalier Univ. Vaudois Lausanne (Switzerland)
- 7622 2E **3D numerical test objects for the evaluation of a software used for an automatic analysis of a linear accelerator mechanical stability** [7622-85]  
T. Torfeh, S. Beaumont, QualiFormeD SARL (France); J. Guédon, IRCCyN, CNRS, École Polytechnique Univ. of Nantes (France); Y. Benhdech, QualiFormeD SARL (France) and IRCCyN, CNRS, École Polytechnique Univ. of Nantes (France)
- 7622 2F **Properties of a parameterization of radon projection by the reconstruction on circular disc** [7622-86]  
O. Tischenko, A. Schegerer, Helmholtz Zentrum München GmbH (Germany); Y. Xu, Univ. of Oregon (United States); C. Hoeschen, Helmholtz Zentrum München GmbH (Germany)
- 7622 2G **Investigation on PI-line selecting method base on GPU accelerated back-projection filtered VOI reconstruction** [7622-87]  
H. Zheng, Y. Yu, Y. Kang, J. Liu, Northeastern Univ. (China)
- 7622 2H **A new approach to limited angle tomography using the compressed sensing framework** [7622-88]  
L. Ritschl, F. Bergner, M. Kachelrieß, Friedrich-Alexander-Univ. Erlangen-Nürnberg (Germany)
- 7622 2I **Embossed radiography utilizing a subtraction program in conjunction with a 0.5-mm-focus x-ray tube** [7622-89]  
E. Sato, P. Abderyim, Iwate Medical Univ. (Japan); A. Osawa, H. Matsukiyo, T. Enomoto, M. Watanabe, The Toho Univ. School of Medicine (Japan); K. Takahashi, S. Sato, A. Ogawa, Iwate Medical Univ. (Japan); J. Onagawa, Tohoku Gakuin Univ. (Japan)
- 7622 2K **Iterative reconstruction in image space (IRIS) and lesion detection in abdominal CT** [7622-91]  
S. Tipnis, A. Ramachandra, W. Huda, A. Hardie, J. Schoepf, P. Costello, Medical Univ. of South Carolina (United States); T. Flohr, M. Sedlmair, Siemens Medical Solutions GmbH (Germany)
- 7622 2L **TV-regularized iterative image reconstruction on a mobile C-ARM CT** [7622-92]  
Y. Pan, R. Whitaker, The Univ. of Utah (United States); A. Cheryauka, D. Ferguson, GE Healthcare (United States)
- 7622 2M **Anatomy guided automated SPECT renal seed point estimation** [7622-93]  
S. Dwivedi, S. Kumar, Philips Electronics India Ltd. (India)

- 7622 2N **Evaluation of dual-front active contour segmentation and metal shadow filling methods on metal artifact reduction in multi-slice helical CT** [7622-94]  
H. Li, L. Yu, L. S. Guimaraes, J. G. Fletcher, C. H. McCollough, Mayo Clinic (United States)
- 7622 2O **Adaptive modulation of bilateral filtering based on a practical noise model for streaking and noise reduction in multi-slice CT** [7622-95]  
L. Yu, A. Manduca, M. Jacobsen, J. D. Trzasko, J. G. Fletcher, D. R. DeLone, C. H. McCollough, Mayo Clinic College of Medicine (United States)
- 7622 2P **A preliminary study of few-view image reconstruction of sparse objects in cone-beam micro-CT** [7622-96]  
X. Han, J. Bian, The Univ. of Chicago (United States); D. R. Eaker, Mayo Clinic College of Medicine (United States); E. Y. Sidky, The Univ. of Chicago (United States); E. L. Ritman, Mayo Clinic College of Medicine (United States); X. Pan, The Univ. of Chicago (United States)

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**POSTER SESSION: CT**

- 7622 2Q **Dose reduction and lesion detectability in abdominal CT** [7622-97]  
S. Tipnis, W. Huda, A. Hardie, Medical Univ. of South Carolina (United States); K. Ogden, SUNY Upstate Medical Univ. (United States)
- 7622 2R **Imaging properties of gold nanoparticles: CT number dependence study** [7622-98]  
S.-J. Tu, H.-L. Hsieh, T.-C. Chao, Chang Gung Univ. (Taiwan)
- 7622 2T **An exact modeling of signal statistics in energy-integrating x-ray computed tomography** [7622-100]  
Y. Fan, Stony Brook Univ. (United States); H. Lu, Fourth Military Medical Univ. (China); H. Zhu, Stony Brook Univ. (United States); X. Tang, Emory Univ. School of Medicine (United States); Z. Liang, Stony Brook Univ. (United States)
- 7622 2U **Evaluation of the low dose cardiac CT imaging using ASIR technique** [7622-101]  
J. Fan, J. Hsieh, A. Deubig, P. Sainath, P. Crandall, GE Healthcare (United States)
- 7622 2V **Toward iterative reconstruction in clinical CT: increased sharpness-to-noise and significant dose reduction owing to a new class of regularization priors** [7622-102]  
H. Bruder, R. Raupach, M. Sedlmair, F. Würsching, K. Schwarz, K. Stierstorfer, T. Flohr, Siemens Medical Solutions GmbH (Germany)
- 7622 2W **Quantitative CT: technique dependency of volume assessment for pulmonary nodules** [7622-103]  
B. Chen, S. Richard, H. Barnhart, J. Colsher, M. Amuroo, E. Samei, Duke Univ. (United States)
- 7622 2Y **Imaging the basic function unit of small/medium animal via diagnostic CT with an adaptor-and-holder assembly (AAHA): feasibility study** [7622-105]  
X. Tang, Emory Univ. School of Medicine (United States)

- 7622 27 **Energy-discrimination x-ray computed tomography system utilizing a scanning cadmium-telluride detector** [7622-106]  
E. Sato, Iwate Medical Univ. (Japan); A. Abduraxit, Iwate Prefectural Univ. (Japan); T. Enomoto, M. Watanabe, The Toho Univ. School of Medicine (Japan); K. Hitomi, Tohoku Institute of Technology (Japan); K. Takahashi, S. Sato, A. Ogawa, Iwate Medical Univ. (Japan); J. Onagawa, Tohoku Gakuin Univ. (Japan)
- 7622 30 **Development and quality characterization of a novel CT system** [7622-107]  
A. A. Schegerer, M. Lingenheil, M. Klaffen, T. Förster, M. Hrabé de Angelis, C. Hoeschen, Helmholtz Zentrum München GmbH (Germany)
- 7622 31 **Fast cardiac CT simulation using a graphics processing unit-accelerated Monte Carlo code** [7622-108]  
A. Badal, I. Kyprianou, D. Sharma, A. Badano, U.S. Food and Drug Administration (United States)
- 7622 32 **Designing a phantom for dose evaluation in multi-slice CT** [7622-109]  
S. Abboud, U.S. Food and Drug Administration (United States), Univ. of Maryland, Baltimore (United States), and Univ. of Maryland, College Park (United States); A. Badal, S. H. Stern, U.S. Food and Drug Administration (United States); I. S. Kyprianou, U.S. Food and Drug Administration (United States) and Univ. of Maryland, College Park (United States)

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**POSTER SESSION: CT CONE BEAM**

- 7622 33 **Use of beam shapers for cone-beam CT with off-centered flat detector** [7622-110]  
B. Menser, J. Wiegert, S. Wiesner, M. Bertram, Philips Research Europe (Germany)
- 7622 34 **Images registration and superimposition for dual resolution cone beam CT: a preliminary study** [7622-111]  
Z. You, Y. Shen, Y. Zhong, L. Chen, T. Han, S. Ge, Y. Yi, T. Wang, C.-J. Lai, X. Liu, C. C. Shaw, The Univ. of Texas M.D. Anderson Cancer Ctr. (United States)
- 7622 36 **Pseudo super-resolution for improved calcification characterization for cone beam breast CT (CBBCT)** [7622-113]  
J. Liu, R. Ning, W. Cai, Univ. of Rochester (United States)
- 7622 37 **Development of a beam hardening filter and characterization of the spatial resolution for a cone beam CT imaging system** [7622-114]  
R. Betancourt Benítez, Univ. of Rochester Medical Ctr. (United States) and Univ. of Rochester (United States); R. Ning, Univ. of Rochester Medical Ctr. (United States)
- 7622 38 **GPU-based iterative reconstruction with total variation minimization for micro-CT** [7622-115]  
S. M. Johnston, G. A. Johnson, C. T. Badea, Duke Univ. Medical Ctr. (United States)
- 7622 39 **GPU implementation of prior image constrained compressed sensing (PICCS)** [7622-116]  
B. E. Nett, J. Tang, G.-H. Chen, Univ. of Wisconsin-Madison (United States)
- 7622 3A **Accelerating ring artifact correction for flat-detector CT using the CUDA framework** [7622-117]  
W. Chen, D. Prell, Y. Kyriakou, W. A. Kalender, Institute of Medical Physics, Friedrich-Alexander-Univ. Erlangen-Nürnberg (Germany)

- 7622 3B **Demonstration of dual resolution cone beam CT technique with an a-Si/a-Se flat panel detector** [7622-118]  
Y. Shen, Y. Zhong, L. Chen, C.-J. Lai, X. Liu, T. Han, Y. Yi, Z. You, S. Ge, T. Wang, C. C. Shaw, The Univ. of Texas M.D. Anderson Cancer Ctr. (United States)
- 7622 3C **Initial investigation into lower-cost CT for resource limited regions of the world** [7622-120]  
J. T. Dobbins III, Duke Univ. Medical Ctr. (United States) and Duke Univ. (United States); J. R. Wells, Duke Univ. Medical Ctr. (United States); W. P. Segars, C. M. Li, Duke Univ. Medical Ctr. (United States) and Duke Univ. (United States); C. J. N. Kigongo, Duke Univ. Medical Ctr. (United States)
- 7622 3D **GPU-accelerated metal artifact reduction (MAR) in FD-CT** [7622-121]  
M. Beister, D. Prell, Y. Kyriakou, W. A. Kalender, Institute of Medical Physics, Friedrich-Alexander-Univ. Erlangen-Nürnberg (Germany)
- 7622 3E **Scatter in an uncollimated x-ray CT machine based on a Geant4 Monte Carlo simulation** [7622-122]  
N. Wadson, The Univ. of Manchester (United Kingdom); E. Morton, Rapiscan Systems Ltd. (United Kingdom); W. Lionheart, The Univ. of Manchester (United Kingdom)
- 7622 3F **Off-center object of interest (OOI) imaging in filtered region of interest rotational angiography (FROI-RA)** [7622-123]  
S. Schafer, Univ. at Buffalo (United States) and Toshiba Stroke Research Ctr., Univ. at Buffalo (United States); P. B. Noël, Toshiba Stroke Research Ctr., Univ. at Buffalo (United States) and Univ. at Buffalo (United States); A. M. Walczak, Toshiba Stroke Research Ctr., Univ. at Buffalo (United States); A. Kuhls-Gilchrist, Toshiba Stroke Research Ctr., Univ. at Buffalo (United States) and Univ. at Buffalo (United States); K. R. Hoffmann, Univ. at Buffalo (United States) and Toshiba Stroke Research Ctr., Univ. at Buffalo (United States)
- 7622 3G **Phase-selective image reconstruction of the lungs in small animals using micro-CT** [7622-124]  
S. M. Johnston, B. A. Perez, D. G. Kirsch, C. T. Badea, Duke Univ. Medical Ctr. (United States)

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#### POSTER SESSION: CT DUAL ENERGY

- 7622 3H **Contrast-enhancement, image noise, and dual-energy simulations for quantum-counting clinical CT** [7622-125]  
S. Kappler, D. Niederlöhner, K. Stierstorfer, T. Flohr, Siemens AG (Germany)
- 7622 3I **The impact of dual energy CT on pseudo enhancement of kidney lesions** [7622-126]  
J. Müller, Univ. zu Lübeck (Germany) and Siemens Medical Solutions USA, Inc. (United States); T. Vrtiska, Mayo Clinic (United States); B. Schmidt, Siemens Medical Solutions GmbH (Germany); B. Howe, C. McCollough, Mayo Clinic (United States); T. M. Buzug, Univ. zu Lübeck (Germany); M. Petersilka, Siemens Medical Solutions GmbH (Germany); C. Eusemann, Siemens Medical Solutions USA, Inc. (United States)

- 7622 3K **Effective atomic number accuracy for kidney stone characterization using spectral CT** [7622-128]  
M. Joshi, GE Healthcare (United States); D. A. Langan, GE Global Research (United States); D. S. Sahani, A. Kambadakone, Massachusetts General Hospital (United States); S. Aluri, K. Procknow, GE Healthcare (United States); X. Wu, R. Bhotika, GE Global Research (United States); D. Okerlund, GE Healthcare (United States); N. Kulkarni, Massachusetts General Hospital (United States); D. Xu, GE Global Research (United States)
- 7622 3L **Impact of photon counting detector spectral response on dual energy techniques** [7622-129]  
A. S. Wang, N. J. Pelc, Stanford Univ. (United States)
- 7622 3M **Evaluation of an image-based algorithm for quantitative spectral CT applications** [7622-130]  
B. J. Heismann, Siemens Healthcare (Germany) and Friedrich-Alexander-Univ. Erlangen-Nürnberg (Germany); M. Balda, Friedrich-Alexander-Univ. Erlangen-Nürnberg (Germany)
- 7622 3N **In vivo measurement of iron concentration using dual-source dual-energy CT** [7622-131]  
P. T. Weavers, Mayo Clinic (United States) and Mayo Clinic College of Medicine (United States) M. Jacobsen, X. Liu, R. L. Morin, C. H. McCollough, Mayo Clinic (United States)
- 7622 3O **Differentiation of uric acid versus non-uric acid kidney stones in the presence of iodine using dual-energy CT** [7622-132]  
J. Wang, M. Qu, S. Leng, C. H. McCollough, Mayo Clinic (United States)

## Part Three

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### POSTER SESSION: DETECTORS

- 7622 3P **Simulation study of an energy sensitive photon counting silicon strip detector for computed tomography: identifying strengths and weaknesses and developing work-arounds (Cum Laude Poster Award)** [7622-133]  
H. Bornefalk, C. Xu, Royal Institute of Technology (Sweden); C. Svensson, Linköping Univ. (Sweden); M. Danielsson, Royal Institute of Technology (Sweden)
- 7622 3Q **Electronic noise comparison of amorphous silicon current mode and voltage mode active pixel sensors for large area digital x-ray imaging** [7622-134]  
D. Wu, N. Safavian, M. Y. Yazdandoost, M. H. Izadi, K. S. Karim, Univ. of Waterloo (Canada)
- 7622 3R **Amorphous selenium lateral Frisch photodetector and photomultiplier for high performance medical x-ray and gamma-ray imaging applications** [7622-135]  
A. H. Goldan, Univ. of Waterloo (Canada); K. Wang, Univ. of Waterloo (Canada) and Thunder Bay Regional Research Institute (Canada); F. Chen, K. S. Karim, Univ. of Waterloo (Canada)
- 7622 3S **Phosphor-filled micro-well arrays for digital x-ray imaging: effects of surface treatments** [7622-136]  
S. Yun, C. H. Lim, Pusan National Univ. (Korea, Republic of); T. W. Kim, E-WOO Technology Co., Ltd. (Korea, Republic of); I. Cunningham, Robarts Research Institute (Canada); T. Achterkirchen, Rad-Icon Imaging Corp. (United States); H. K. Kim, Pusan National Univ. (Korea, Republic of)



- 7622 3T **Development of a large-area CMOS-based detector for real-time x-ray imaging** [7622-137]  
S. K. Heo, S. K. Park, S. H. Hwang, D. A. Im, J. Kosonen, T. W. Kim, E-WOO Technology Co., Ltd. (Korea, Republic of); S. Yun, H. K. Kim, Pusan National Univ. (Korea, Republic of)
- 7622 3U **Modeling of pulse signals in photon-counting detectors** [7622-138]  
C. H. Lim, O. Joe, Pusan National Univ. (Korea, Republic of); I. Cunningham, Robarts Research Institute (Canada); H. K. Kim, Pusan National Univ. (Korea, Republic of)
- 7622 3V **Performance of a prototype amorphous silicon active pixel sensor array using a-Se for direct x-ray conversion** [7622-139]  
M. H. Izadi, Univ. of Waterloo (Canada); O. Tousignant, M. Feuto Mokam, ANRAD Corp. (Canada); M. Yazdandoost, N. Safavian, Univ. of Waterloo (Canada); H. Mani, L. Laperriere, ANRAD Corp. (Canada); K. S. Karim, Univ. of Waterloo (Canada)
- 7622 3W **Scanning translucent glass-ceramic x-ray storage phosphors** [7622-140]  
A. R. Lubinsky, Stony Brook Univ. (United States); J. A. Johnson, Univ. of Tennessee Space Institute (United States); S. Schweizer, Fraunhofer Ctr. for Silicon Voltaics (Germany) and Martin Luther Univ. of Halle-Wittenberg (Germany); J. K. R. Weber, Materials Development, Inc. (United States); R. M. Nishikawa, The Univ. of Chicago (United States); P. Domenicali, S. D. Fantone, Optikos Corp. (United States)
- 7622 3X **Amorphous silicon p-i-n photodetector with Frisch grid for high-speed medical imaging** [7622-141]  
N. Allec, A. H. Goldan, K. Wang, F. Chen, K. S. Karim, Univ. of Waterloo (Canada)
- 7622 3Y **An aging study of the signal and noise characteristics in large-area CMOS detectors** [7622-142]  
J. C. Han, S. Yun, C. H. Lim, T. G. Youm, Pusan National Univ. (Korea, Republic of); S. K. Heo, T. W. Kim, E-WOO Technology Co., Ltd. (Korea, Republic of); I. Cunningham, Robarts Research Institute (Canada); H. K. Kim, Pusan National Univ. (Korea, Republic of)
- 7622 3Z **Cadmium zinc telluride detector for low photon energy applications** [7622-143]  
K.-W. Shin, Univ. of Waterloo (Canada); K. Wang, Univ. of Waterloo (Canada) and Thunder Bay Regional Research Institute (Canada); A. Reznic, Thunder Bay Regional Health Sciences Ctr. (Canada); K. S. Karim, Univ. of Waterloo (Canada)
- 7622 40 **New development of large-area direct conversion detector for digital radiography using amorphous selenium with a C<sub>60</sub>-doped polymer layer** [7622-144]  
F. Nariyuki, S. Imai, H. Watano, T. Nabeta, Y. Hosoi, Fujifilm Corp. (Japan)

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#### POSTER SESSION: BREAST IMAGING

- 7622 41 **Daily quality control for breast tomosynthesis** [7622-145]  
R. W. Bouwman, R. Visser, Radboud Univ. Nijmegen Medical Ctr. (Netherlands); K. C. Young, D. R. Dance, The Royal Surrey County Hospital (United Kingdom) and Surrey Univ. (United Kingdom); B. Lazzari, General Hospital of Pistoia (Italy); R. van der Burght, Artinis Medical Systems B.V. (Netherlands); P. Heid, Arcades (France); R. E. van Engen, Radboud Univ. Nijmegen Medical Ctr. (Netherlands)

- 7622 42 **Determination of mass attenuation coefficients for threshold contrast evaluation in digital mammography** [7622-146]  
J. Hummel, Medizinische Univ. Wien (Austria) and Wilhelminenspital (Austria); F. Semturs, S. Menhart, M. Figl, Medizinische Univ. Wien (Austria)
- 7622 43 **Singular system analysis of breast tomosynthesis systems for choosing projection angles** [7622-147]  
S. Park, R. Zeng, K. J. Myers, U.S. Food and Drug Administration (United States)
- 7622 44 **Optimization of the exposure parameters with signal-to-noise ratios considering human visual characteristics in digital mammography** [7622-148]  
M. Yamada, Y. Kato, Nagoya Univ. (Japan); N. Fujita, Nagoya Univ. Hospital (Japan); Y. Kodera, Nagoya Univ. (Japan)
- 7622 45 **Quantifying breast density with a cone-beam breast CT** [7622-149]  
X. Li, B. Liu, Massachusetts General Hospital (United States)
- 7622 46 **Reliability study of reconstruction methods in tomosynthesis imaging of various geometrical objects** [7622-150]  
K. Kanaka, R. K. Samala, J. Zhang, W. Qian, The Univ. of Texas at El Paso (United States)
- 7622 47 **A consideration of the signal-to-noise ratio in phase contrast mammography** [7622-151]  
Y. Kato, Nagoya Univ. (Japan); N. Fujita, Nagoya Univ. Hospital (Japan); Y. Kodera, Nagoya Univ. (Japan)
- 7622 48 **Noise characteristics of the reduction image displayed on liquid crystal display in digital mammography** [7622-152]  
D. Yokoyama, Y. Kimura, Nagoya Univ. (Japan); Y. Imanishi, JA Mie Kouseiren Matsusaka General Hospital (Japan); N. Fujita, Nagoya Univ. Hospital (Japan); Y. Kodera, Nagoya Univ. (Japan)
- 7622 49 **Simulation of low dose positron emission mammography scanner for global breast health applications** [7622-153]  
W. J. Ryder, Portsmouth Hospital NHS Trust (United Kingdom); I. N. Wienberg, P. S. Stepanov, Weinberg Medical Physics (United States); A. Reznik, Thunder Bay Regional Health Sciences Ctr. (Canada) and Lakehead Univ. (Canada); M. Urdaneta, E. Anashkin, Weinberg Medical Physics (United States); M. A. Masoomi, Portsmouth Hospital NHS Trust (United Kingdom); A. Rozenfeld, Univ. of Wollongong (Australia)
- 7622 4A **Performance characterization of computed radiography based mammography systems** [7622-154]  
A. Singh, N. Desai, D. J. Valentino, iCR Co., Inc. (United States) and Univ. of California, Los Angeles (United States)

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#### POSTER SESSION: OPTICAL IMAGING

- 7622 4B **Design of, and some clinical experience with, a novel optical surface measurement system in radiotherapy** [7622-155]  
G. J. Price, T. E. Marchant, J. M. Parkhurst, P. J. Sharrock, The Christie NHS Foundation Trust (United Kingdom); G. Whitfield, The Univ. of Manchester (United Kingdom); C. J. Moore, The Christie NHS Foundation Trust (United Kingdom)

- 7622 4C **Measurement of contrast-to-noise ratio for differential phase contrast computed tomography** [7622-156]  
J. Zambelli, N. Bevins, Z. Qi, G.-H. Chen, Univ. of Wisconsin-Madison (United States)
- 7622 4D **Adaptive platform for fluorescence microscopy-based high-content screening** [7622-157]  
M. Geisbauer, Bioluminescence Zentrum der Ludwig-Maximilians-Univ. (Germany); T. Röder, Y. Chen, A. Knoll, Technische Univ. München (Germany); R. Uhl, Bioluminescence Zentrum der Ludwig-Maximilians-Univ. (Germany)
- 7622 4E **Image formation of volume holographic microscopy using point spread functions** [7622-159]  
Y. Luo, S. B. Oh, Massachusetts Institute of Technology (United States); S. S. Kou, National Univ. of Singapore (Singapore) and Graduate School for Integrative Sciences and Engineering (Singapore); J. Lee, Massachusetts Institute of Technology (United States); C. J. R. Sheppard, National Univ. of Singapore (Singapore) and Graduate School for Integrative Sciences and Engineering (Singapore); G. Barbastathis, Massachusetts Institute of Technology (United States) and Singapore-MIT Alliance for Research and Technology Ctr. (Singapore)

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**POSTER SESSION: OTHER/NOVEL METHODS**

- 7622 4F **Nonintrusive noncontacting frequency-domain photothermal radiometry of caries** [7622-160]  
Y. H. El-Sharkawy, B. Abd-Elwahab, Egyptian Armed Forces (Egypt)
- 7622 4G **A balanced filterless K-edge energy window multilayer detector for dual energy computed tomography** [7622-161]  
N. Allec, K. S. Karim, Univ. of Waterloo (Canada)
- 7622 4I **Coherent scatter tomography using a sliding detector system** [7622-163]  
M. Terabe, Toyohashi Municipal Hospital (Japan) and Kanazawa Univ. (Japan); K. Inoue, H. Okamoto, K. Koshida, Kanazawa Univ. (Japan)
- 7622 4J **Adapted erase method using ultraviolet light and the influence of ghosting image on a clinical CR image** [7622-164]  
T. Okamoto, Teikyo Univ. (Japan) and Teikyo Univ. Hospital (Japan); H. Ohuchi, Tohoku Univ. (Japan); H. Maejima, T. Minami, Teikyo Univ. (Japan) and Teikyo Univ. Hospital (Japan); E. Mogi, H. Ichiji, Carestream Health Co., Ltd. (Japan); S. Furui, Teikyo Univ. (Japan) and Teikyo Univ. Hospital (Japan)
- 7622 4K **Imaging quality assessment of multiplexing x-ray radiography based on multi-beam x-ray source technology** [7622-165]  
J. Zhang, R. Peng, S. Chang, J. P. Lu, The Univ. of North Carolina at Chapel Hill (United States); O. Zhou, The Univ. of North Carolina at Chapel Hill (United States) and Lineberger Comprehensive Cancer Ctr., Univ. of North Carolina at Chapel Hill
- 7622 4L **MEG source detection revisited** [7622-167]  
T. Lei, T. P. L. Roberts, The Children's Hospital of Philadelphia (United States) and The Univ. of Pennsylvania (United States)
- 7622 4M **Silicon nanowire metal-semiconductor-metal photodetectors** [7622-168]  
M. M. Adachi, K. Wang, F. Chen, K. S. Karim, Univ. of Waterloo (Canada)

- 7622 4O **Bone cartilage imaging with x-ray interferometry using a practical x-ray tube** [7622-170]  
K. Kido, C. Makifuchi, J. Kiyohara, T. Itou, C. Honda, Konica Minolta Medical & Graphic, Inc. (Japan); A. Momose, The Univ. of Tokyo (Japan)

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**POSTER SESSION: PERFORMANCE EVALUATION**

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