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8668 2I Monte Carlo modeling of field angle-dependent spectra for x-ray imaging systems [8668-88]  
E. B. Gindele, Carestream Health, Inc. (United States)

8668 2J Fast iterative beam hardening correction based on frequency splitting in computed tomography [8668-89]  
Q. Yang, Friedrich-Alexander-Univ. Erlangen-Nürnberg (Germany) and Siemens AG (Germany); M. Elter, I. Schasiepen, N. Maass, Siemens AG (Germany); J. Hornegger, Friedrich-Alexander-Univ. Erlangen-Nürnberg (Germany) and School in Advanced Optical Technologies (Germany)

8668 2K Removing intra plane blurring in dental panoramas [8668-90]  
C. Hofmann, Friedrich-Alexander-Univ. Erlangen-Nürnberg (Germany); M. Knaup, German Cancer Research Ctr. (Germany); M. Kachelrieß, Friedrich-Alexander-Univ. Erlangen-Nürnberg (Germany) and German Cancer Research Ctr. (Germany)
Cascaded-systems analyses of the DQE of double-Z x-ray detectors including photoelectric, coherent and incoherent interactions [8668-91]
S. Yun, Robarts Research Institute (Canada), Univ. of Western Ontario (Canada), and Pusan National Univ. (Korea, Republic of); J. Tanguay, Robarts Research Institute (Canada) and Univ. of Western Ontario (Canada); H. K. Kim, Pusan National Univ. (Korea, Republic of); I. A. Cunningham, Robarts Research Institute (Canada) and Univ. of Western Ontario (Canada)

Hybrid EID algorithm for PCD/EID-CT systems [8668-92]
K. Taguchi, G. S. K. Fung, Q. Tang, J. Cammin, Johns Hopkins Univ. School of Medicine (United States)

Cardiac deformation indices derived from motion estimated x-ray computed tomography [8668-93]
L. Jiang, Q. Tang, K. Taguchi, Johns Hopkins Univ. School of Medicine (United States)

Metal artifact reduction based on beam hardening correction and statistical iterative reconstruction for x-ray computed tomography [8668-94]
Y. Zhang, X. Mou, Xi'an Jiaotong Univ. (China)

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A model-based volume restoration approach for Monte Carlo scatter correction in image reconstruction of cone beam CT with limited field of view [8668-95]
G. Zhang, R. Jacobs, H. Bosmans, UZ Leuven (Belgium)

A method to characterize the radiation output from a cone beam O-arm using a device for dose and dose profile scanning measurement [8668-96]
L. Herrmsdorf, M. Söderberg, Lund Univ. (Sweden)

Volume of interest CT implemented with a dynamic bowtie filter [8668-97]
T. P. Szczykutowicz, C. Mistretta, Univ. of Wisconsin-Madison (United States)

Radiation dose reduction and CNR enhancement in C-arm cone beam CT [8668-100]
K. Niu, J. Tang, Univ. of Wisconsin-Madison (United States); K. Royalty, Siemens Medical Solutions (United States); O. Ozkan, C. Strother, B. Aagaard-Kienitz, K. A. Pulfer, G.-H. Chen, Univ. of Wisconsin-Madison (United States)

Motion detection in cone-beam computed tomography incorporating a geometric calibration approach [8668-101]
R. D. Pua, B. Yoo, C. H. Kim, S. Cho, KAIST (Korea, Republic of)

Infinite impulse response filtering for cone beam tomography [8668-102]
K. Barth, F. Dennerlein, T. Brunner, A. Fieselmann, R. Graumann, Siemens AG (Germany)

ML reconstruction of cone-beam projections acquired by a flat-panel rotational x-ray device [8668-103]
T. Pfeiffer, R. Frysch, S. Gugel, G. Rose, Univ. of Magdeburg (Germany)
A new approach for prospectively gated cardiac rotational angiography [8668-104]
S. De Buck, D. Dauwe, J.-Y. Wielandts, P. Claus, S. Janssens, H. Heidbuchel, D. Nuyens, Katholieke Univ. Leuven (Belgium)

Simulation study of cone beam CT for visualizing cell clusters in breast biopsies [8668-105]
C. Laamanen, R. J. LeClair, Laurentian Univ. (Canada)

Single-scan energy-selective imaging on cone-beam CT: a preliminary study [8668-107]
X. Dong, T. Niu, L. Zhu, Georgia Institute of Technology (United States)

An integrated x-ray/optical tomography system for pre-clinical radiation research [8668-108]
S. Eslami, Johns Hopkins Univ. (United States); Y. Yang, J. Wong, Johns Hopkins Univ. School of Medicine (United States); M. S. Patterson, McMaster Univ. (Canada); I. Iordachita, Johns Hopkins Univ. (United States)

Image reconstruction of arc cone-beam CT with reprojection: a preliminary study [8668-109]
S.-C. B. Lo, M. T. Freedman, Georgetown Univ. Medical Ctr. (United States)

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Evaluation of adaptation strengths of CARE Dose 4D in pediatric CT [8668-111]
M. Söderberg, S. La, Lund Univ., Skåne Univ. Hospital (Sweden)

Alternative noise map estimation methods for CT images [8668-113]
D. Shi, Toshiba Medical Research Institute USA, Inc. (United States)

FPGA-based forward and back-projection operators for tomographic reconstruction [8668-114]
K. Jin, Korea Institute of Industrial Technology (Korea, Republic of); S. Song, MDS Technology Co. (Korea, Republic of)

Modelling and simulation of a respiratory motion monitor using a continuous wave Doppler radar in near field [8668-115]
F. Pfanner, Friedrich-Alexander-Univ. Erlangen-Nürnberg (Germany) and Siemens AG (Germany); T. Allmendinger, T. Flohr, Siemens AG (Germany); M. Kachelrieß, Friedrich-Alexander-Univ. Erlangen-Nürnberg (Germany) and German Cancer Research Ctr. (Germany)

Feasibility study on multiple fan-beam data acquisition for low-dose helical CT [8668-116]
T. Lee, M. Park, Y. Lee, KAIST (Korea, Republic of); I. Kim, B. Han, Ebtech, Inc. (Korea, Republic of); S. Cho, KAIST (Korea, Republic of)

Statistical CT noise reduction with multi-scale decomposition and penalized weighted least square for incomplete projection data [8668-118]
S. Tang, Emory Univ. School of Medicine (United States) and Xi’an Univ. of Posts and Telecommunications (China); X. Tang, Emory Univ. School of Medicine (United States)
8668 3A Bregman regularized statistical image reconstruction method and application to prior image constrained compressed sensing (PICCS) [8668-119]
Y. Li, P. Thériault Lauzier, J. Tang, G.-H. Chen, Univ. of Wisconsin-Madison (United States)

8668 3B A new padding scheme for local tomograpy in tomographic microscopy [8668-120]
Y. Pan, F. De Carlo, Argonne National Lab. (United States)

8668 3C Influence of metal segmentation on the quality of metal artifact reduction methods [8668-121]
M. Stille, B. Kratz, J. Müller, Univ. of Lübeck (Germany); N. Maass, I. Schasiepen, M. Elter, Siemens AG (Germany); I. Weyers, T. M. Buzug, Univ. of Lübeck (Germany)

8668 3D TV-Stokes strategy for sparse-view CT image reconstruction [8668-122]
Y. Liu, L. Chen, H. Zhang, K. Wang, Stony Brook Univ., SUNY (United States); J. Ma, Southern Medical Univ. (China); Z. Liang, Stony Brook Univ., SUNY (United States)

8668 3E A comparison study of sinogram- and image-domain penalized re-weighted least-squares approaches to noise reduction for low-dose cone-beam CT [8668-123]
H. Zhang, Y. Liu, H. Han, Stony Brook Univ., SUNY (United States); J. Wang, Univ. of Texas Southwestern Medical Ctr. (United States); J. Ma, Stony Brook Univ., SUNY (United States) and Southern Medical Univ. (China); L. Li, City Univ. of New York, SUNY (United States); Z. Liang, Stony Brook Univ., SUNY (United States)

8668 3F Background filtering for accuracy improvement in computed tomography with iterative region-of-interest reconstruction [8668-124]
K. Yamakawa, S. Kojima, Hitachi Ltd. (Japan)

8668 3G Co-registered image quality comparison in hybrid iterative reconstruction techniques: SAFIRE and SafeCT [8668-125]
S. Lee, Massachusetts General Hospital (United States) and Yonsei Univ. (Korea, Republic of); A. Shima, A. Ch. Sing, M. K. Kalra, Massachusetts General Hospital (United States); H.-J. Kim, Yonsei Univ. (Korea, Republic of); S. Do, Massachusetts General Hospital (United States)

8668 3H Iterative CT reconstruction using continuous model [8668-126]
Y. Pan, D. Shi, A. A. Zamyatin, Toshiba Medical Research Institute USA, Inc. (United States)

8668 3I Image reconstruction from limited-angle range projections [8668-127]
N. Du, Y. Feng, A. M. Grigoryan, Univ. of Texas at San Antonio (United States)

8668 3J Impact of noise level and edge sharpness of a prior image on the performance of Prior Image Constrained Compressed Sensing (PICCS) [8668-128]
Y. Tao, J. Tang, M. Speidel, G.-H. Chen, Univ. of Wisconsin-Madison (United States)

8668 3K Evaluation of reconstructed images from sparse data on the micro-CT system [8668-129]
D.-H. Kim, H.-J. Kim, P.-H. Jeon, Yonsei Univ. (Korea, Republic of)

8668 3L Low-dose CT reconstruction based on multiscale dictionary [8668-130]
T. Bai, X. Mou, Q. Xu, Y. Zhang, Xi'an Jiaotong Univ. (China)
Detection of low-dose CT reconstruction artifacts using a bi-modal approach [8668-131]
S. Mahmood, K. Mueller, Stony Brook Univ., SUNY (United States) and SUNY Korea (Korea, Republic of)

Truncation artifact correction by support recovery [8668-132]
S. S. Hsieh, Stanford Univ. (United States); G. Cao, B. E. Nett, GE Healthcare (United States); N. J. Pelc, Stanford Univ. (United States)

POSTER SESSION: DETECTORS

User-friendly ultra-fast simulation of detector DQE(f) [8668-133]
E. Abel, M. Sun, Varian Medical Systems Inc. (United States); D. Constantin, R. Fahrig, Stanford Univ. (United States); J. Star-Lack, Varian Medical Systems Inc. (United States)

Quantitative breast imaging using photon counting detector [8668-23]
S. Han, D.-G. Kang, S. Kang, Y. Sung, Samsung Advanced Institute of Technology (Korea, Republic of)

Application of organic semiconductors in amorphous selenium based photodetectors for high performance x-ray imaging [8668-135]
S. Abbaszadeh, Z. Du, N. Allec, K. S. Karim, Univ. of Waterloo (Canada)

Spatial resolution characteristics of a-Se imaging detectors using Monte Carlo methods with detailed spatiotemporal transport of x-rays, electrons, and electron-hole pairs under applied bias [8668-136]
Y. Fang, US Food and Drug Administration (United States) and Univ. of Waterloo (Canada); A. Badal, A. Badano, US Food and Drug Administration (United States); K. S. Karim, Univ. of Waterloo (Canada)

Fabrication and characterization of a novel x-ray silicon detector [8668-137]
K.-W. Shin, K. S. Karim, Univ. of Waterloo (Canada)

High performance microstructured Lu2O3:Eu thin film scintillator for x-ray computed tomography [8668-138]
Z. Marton, H. B. Bhandari, C. Brecher, S. R. Miller, B. Singh, V. V. Nagarkar, Radiation Monitoring Devices, Inc. (United States)

Low dark current and high dynamic range a-Si:H MSM photodetector for large area medical imaging [8668-139]
S. Ghanbarzadeh, S. Abbaszadeh, Univ. of Waterloo (Canada); M. Adachi, Univ. of Toronto (Canada) and Univ. of Waterloo (Canada); K. S. Karim, Univ. of Waterloo (Canada)

Investigating the optical diffusion capabilities of nanophosphors for use in medical imaging [8668-224]
P. F. Liaparinos, I. S. Kandarakis, Technological Educational Institute of Athens (Greece)
Light emission efficiency of Lu$_2$O$_3$:Eu nanophosphor scintillating screen under x-ray radiographic conditions [8668-225]
I. E. Seferis, Medical School, Univ. of Patras (Greece); N. I. Kalyvas, I. G. Valais, C. M. Michail, P. F. Liaparinos, G. P. Fountos, Technological Educational Institute of Athens (Greece); E. Zych, Wroclaw Univ. (Poland); I. S. Kandarakis, Technological Educational Institute of Athens (Greece); G. S. Panayiotakis, Medical School, Univ. of Patras (Greece)

POSTER SESSION: DOSE

Expanded analysis of occupational dose in interventional and diagnostic fluoroscopy with the use of active dosimeters [8668-141]
R. Bujila, C. Palmgren, A. Omar, A. Fransson, Karolinska Univ. Hospital (Sweden)

Dose reduction in fluoroscopic interventions using a combination of a region of interest (ROI) x-ray attenuator and spatially different, temporally variable temporal filtering [8668-142]
S. N. Swetadri Vasan, Univ. of Buffalo (United States) and Toshiba Stroke and Vascular Research Ctr., Univ. of Buffalo (United States); L. Pope, C. N. Ionita, Toshiba Stroke and Vascular Research Ctr., Univ. at Buffalo (United States); A. H. Titus, Univ. at Buffalo (United States) and Toshiba Stroke and Vascular Research Ctr., Univ. of Buffalo (United States); D. R. Bednarek, Toshiba Stroke and Vascular Research Ctr., Univ. at Buffalo (United States); S. Rudin, Univ. at Buffalo (United States) and Toshiba Stroke and Vascular Research Ctr., Univ. of Buffalo (United States)

Updates in the real-time dose tracking system (DTS) to improve the accuracy in calculating the radiation dose to the patients skin during fluoroscopic procedures [8668-143]
V. K. Rana, S. Rudin, D. R. Bednarek, Toshiba Stroke and Vascular Research Ctr., Univ. of Buffalo (United States)

Extraction of coronary angiographic information from low tube current HYPR-CT myocardial perfusion scans [8668-144]
Y. Tao, M. Speidel, M. Van Lysel, G.-H. Chen, Univ. of Wisconsin-Madison (United States)

Image extrapolation for patient-specific CT dose determination based on scout images [8668-145]
Q. Liang, L. A. DeWerd, Univ. of Wisconsin-Madison (United States)

An approach to correlate the CTDI$_{vol}$ to organ dose for thorax and abdomen CT taking tube current modulation and patient size into account [8668-146]
X. Lopez Rendon, F. Zanca, R. Oyen, H. Bosmans, UZ Leuven (Belgium)

Longitudinal study of radiation exposure in computed tomography with an in-house developed dose monitoring system [8668-147]
B. Renger, E. J. Rummeny, P. B. Noël, Technische Univ. München (Germany)
Comparative dosimetry of radiography, tomosynthesis, and CT for chest imaging across 59 adult patients [8668-148]
Y. Zhang, Duke Univ. Medical Physics Graduate Program (United States) and Carl E. Ravin Advanced Imaging Labs. (United States); X. Li, Carl E. Ravin Advanced Imaging Labs. (United States) and Duke Univ. (United States); W. P. Segars, E. Samei, Duke Univ. Medical Physics Graduate Program (United States), Carl E. Ravin Advanced Imaging Labs. (United States), and Duke Univ. (United States)

Comparison of photon counting and conventional scintillation detectors in pinhole SPECT system for small animal imaging [8668-149]
Y.-J. Lee, H.-J. Ryu, S.-J. Park, H.-J. Kim, Yonsei Univ. (Korea, Republic of)

Non-invasive high-resolution tracking of human neuronal pathways: diffusion tensor imaging at 7T with 1.2 mm isotropic voxel size [8668-150]
R. Lützkendorf, F. Hertel, Otto-von-Guericke-Univ. Magdeburg (Germany); R. Heidemann, Siemens Healthcare Sector (Germany); A. Thiel, OFFIS Oldenburg (Germany); M. Luchtmann, M. Plaumann, Otto-von-Guericke-Univ. Magdeburg (Germany); J. Stadler, Leibniz Institute for Neurobiology (Germany); S. Baecke, J. Bernarding, Otto-von-Guericke-Univ. Magdeburg (Germany)

Motion correction of rodent thoracic PET image using radioactive bead and MRI image [8668-151]
J. W. Yu, Korea Institute of Radiological and Medical Sciences (Korea, Republic of) and Yonsei Univ. (Korea, Republic of); S.-K. Woo, Y. J. Lee, I. O. Ko, R. J. Yoo, J. H. Kang, B. I. Kim, Korea Institute of Radiological and Medical Sciences (Korea, Republic of); Y. H. Chung, Yonsei Univ. (Korea, Republic of); S. M. Lim, K. M. Kim, Korea Institute of Radiological and Medical Sciences (Korea, Republic of)

LASCA and PPG imaging for non-contact assessment of skin blood supply [8668-153]
D. Jakovels, U. Rubins, J. Spigelis, Univ. of Latvia (Latvia)

Multispectral imaging for early diagnosis of melanoma [8668-154]
A. Pelagotti, P. Ferrara, L. Pescitelli, C. Delfino, CNR-INO (Italy); G. Gerlini, Azienda Sanitaria Locale (Italy); A. Piva, Univ. of Florence (Italy); L. Borgognoni, Azienda Sanitaria Locale (Italy)

Improved DOT reconstruction by estimating the inclusion location using artificial neural network [8668-156]
R. Patra, P. K. Dutta, Indian Institute of Technology Kharagpur (India)
8668 4D **Single-shot phase-shifting digital holography** [8668-157]
J. Zhang, Y. Xie, CREOL, The College of Optics and Photonics, Univ. of Central Florida (United States) and Univ. of Electronic Science & Technology of China (China); G. Li, CREOL, The College of Optics and Photonics, Univ. of Central Florida (United States); Y. Ye, Univ. of Electronic Science & Technology of China (China); B. E. A. Saleh, CREOL, The College of Optics and Photonics, Univ. of Central Florida (United States)

**POSTER SESSION: MAMMOGRAPHY**

8668 4E **Pressure distribution in mammography: compression of breasts with malignant tumor masses (Cum Laude Poster Award)** [8668-158]

8668 4F **Optimizing the acquisition parameters of a newly developed digital breast tomosynthesis system** [8668-159]
H.-S. Park, Y.-S. Kim, Yonsei Univ. (Korea, Republic of); J. Choi, Y.-W. Choi, Korea Electrotechnology Research Institute (Korea, Republic of); H.-J. Kim, Yonsei Univ. (Korea, Republic of)

8668 4G **Energy dispersive x-ray diffraction computed tomography of breast-simulating phantoms and a tissue sample** [8668-160]
S. M. Alkhateeb, Univ. of Surrey (United Kingdom) and King Abdulaziz Univ. (Saudi Arabia); M. H. Abdelkader, Univ. of Surrey (United Kingdom) and Ain Shams Univ. (Egypt); D. A. Bradley, Univ. of Surrey (United Kingdom); P. Seller, M. C. Veale, M. D. Wilson, Rutherford Appleton Lab. (United Kingdom); S. Pani, Univ. of Surrey (United Kingdom)

8668 4H **Mask collimation meets high-efficient data acquisition: a novel design of a low-dose-CT-scanner for breast-imaging** [8668-161]
C. Braun, O. Tischenko, Helmholtz Zentrum München GmbH (Germany); R. Giedl-Wagner, GFH GmbH (Germany); H. Schlattl, C. Hoeschen, Helmholtz Zentrum München GmbH (Germany)

8668 4I **The influence of position within the breast on microcalcification detectability in continuous tube motion digital breast tomosynthesis** [8668-162]
E. Shaheen, N. W. Marshall, H. Bosmans, UZ Leuven (Belgium)

8668 4J **Breast image registration by using non-linear local affine transformation** [8668-163]
F. Chen, P. Zheng, P. Xu, Delaware State Univ. (United States); A. D. A. Maidment, P. R. Bakic, Univ. of Pennsylvania (United States); D. D. Pokrajac, F. Liu, X. Shi, Delaware State Univ. (United States)

8668 4K **Reduction of patient dose in digital mammography: simulation of low-dose image using computed radiography system and flat panel detector system** [8668-164]
Y. Saito, Nagoya Univ. (Japan); M. Sakai, Nagoya Daini Red Cross Hospital (Japan); N. Fujita, Nagoya Univ. Hospital (Japan); Y. Kodera, Nagoya Univ. (Japan)
Estimating breast density with dual energy mammography: a simple model based on calibration phantoms [8668-165]

H. Chung, L. Ikejimba, N. Kiarashi, E. Samei, Duke Univ. Medical Ctr. (United States); M. Hoernig, Siemens Healthcare (Germany); J. Y. Lo, Duke Univ. Medical Ctr. (United States)

POSTER SESSION: METROLOGY

Are uniform phantoms sufficient to characterize the performance of iterative reconstruction in CT? [8668-166]

J. Solomon, E. Samei, Carl E. Ravin Advanced Imaging Labs. (United States) and Duke Univ. (United States)

Noise power spectrum and modulation transfer function analysis of breast tomosynthesis imaging [8668-167]

W. Zhou, L. Cong, Southern Illinois Univ. Carbondale (United States); X. Qian, Y. Z. Lee, The Univ. of North Carolina (United States); J. Lu, O. Zhou, The Univ. of North Carolina (United States) and The Lineberger Comprehensive Cancer Ctr. (United States); Y. Chen, Southern Illinois Univ. Carbondale (United States)

System sharpness (STF) analysis of HD-OCT in 3D space using standard MTF methods [8668-168]


Evaluation of nonlinear pre-sampled modulation transfer function in iterative reconstruction CT [8668-169]

H. M. Jin, J. H. Kim, Seoul National Univ. (Korea, Republic of)

An experimental study on the shift-variant MTF of CT systems using a simple cylindrical phantom [8668-170]

S. Kam, H. Youn, H. K. Kim, Pusan National Univ. (Korea, Republic of); H. Jeon, Pusan National Univ. Yangsan Hospital (Korea, Republic of)

Characterisation of a breast tomosynthesis unit to simulate images [8668-171]

A. Mackenzie, Royal Surrey County Hospital (United Kingdom); N. W. Marshall, UZ Leuven (Belgium); D. R. Dance, Royal Surrey County Hospital (United Kingdom); H. Bosmans, UZ Leuven (Belgium); K. C. Young, Royal Surrey County Hospital (United Kingdom)

POSTER SESSION: MULTIENERGY CT

Characterization of spectral x-ray imaging for dental cone-beam computed tomography [8668-174]

R. A. A. Bin Radin Nasirudin, Technische Univ. München (Germany); P. Penchev, Technische Hochschule Mittelhessen (Germany); K. Mei, E. J. Rummeny, Technische Univ. München (Germany); M. Fiebich, Technische Hochschule Mittelhessen (Germany); P. B. Noël, Technische Univ. München (Germany)
The effect of cross-scatter correction on the performance of dual energy micro-CT [8668-175]
D. Clark, S. M. Johnston, G. A. Johnson, C. T. Badea, Ctr. for In Vivo Microscopy, Duke Univ. Medical Ctr. (United States)

POSTER SESSION: PHANTOMS

Resonance-frequency based electrical impedance spectroscopy and its detection sensitivity to breast lesions [8668-176]
S. Dhurjaty, Dhurjaty Electronics Consulting LLC (United States); B. Zheng, D. Gur, Univ. of Pittsburgh (United States)

TestDose: a SPECT image generator for clinical dosimetry studies [8668-177]
M.-P. Garcia, IRIT, Univ. Paul Sabatier (France); H. Der Sarkissian, E. McKay, L. Ferrer, ICO René Gauducheau (France); M. Barbiés, D. Villoing, INSERM/UPS, Ctr. de Recherche en Cancérologie de Toulouse (France); H. Batatia, A. Basarab, J.-Y. Tourneret, D. Kouamé, IRIT, Univ. Paul Sabatier (France)

Comparison of correction methods for bronchial lumen and wall thickness measurement using a physical tube array phantom [8668-178]
R. Wiemker, U. van Stevendaal, H. Schmitt, Philips Research Hamburg (Germany); A. Steinberg, E. Dharaiya, M. Rabotnikov, Philips Healthcare CT (United States and Israel); T. Klinder, Philips Research Hamburg (Germany)

POSTER SESSION: PHASE CONTRAST IMAGING

A statistical image reconstruction method to reduce small angle scattering induced streaking artifacts in differential phase contrast CT [8668-180]
K. Niu, K. Li, Z. Qi, N. Bevins, J. Zambelli, G.-H. Chen, Univ. of Wisconsin-Madison (United States)

Feasibility study of spectral imaging for differential phase contrast cone beam CT: computer simulations [8668-181]
W. Cai, Univ. of Rochester Medical Ctr. (United States); R. Ning, Univ. of Rochester Medical Ctr. (United States) and Univ. of Rochester (United States); J. Liu, Univ. of Rochester (United States)

Phantom study for volume-of-interest breast imaging using differential phase contrast cone beam CT (DPC-CBCT) [8668-182]
J. Liu, Univ. of Rochester (United States); R. Ning, Univ. of Rochester Medical Ctr. (United States) and Univ. of Rochester (United States); W. Cai, Univ. of Rochester Medical Ctr. (United States)

Energy-resolved interferometric x-ray imaging [8668-183]
A preliminary study on phase-contrast digital tomosynthesis: development and evaluation of experimental system [8668-185]
A. Ikeya, A. Teramoto, Fujita Health Univ. (Japan); K. Naguchi, Nagoya Electric Works Co., Ltd (Japan); H. Fujita, Gifu Univ. (Japan)

Detectability index of differential phase contrast CT compared with conventional CT: a preliminary channelized Hotelling observer study [8668-186]
X. Tang, Y. Yang, S. Tang, Emory Univ. School of Medicine (United States)

Artifacts in x-ray dark-field measurements [8668-187]

Experimental measurement of the modulation transfer function of differential phase contrast CT systems [8668-188]
K. Li, N. Bevins, J. Zambelli, G.-H. Chen, Univ. of Wisconsin-Madison (United States)

Single-step phase contrast x-ray imaging using photon counting detectors [8668-189]
D. Gürsoy, M. Das, Univ. of Houston (United States)

POSTER SESSION: RADIATION TRANSPORT

A compendium of publicly available Monte Carlo transport codes (including new tools) for the simulation of radiation imaging detectors [8668-190]
D. Sharma, US Food and Drug Administration (United States); H. Dong, US Food and Drug Administration (United States) and Univ. of Maryland Baltimore County (United States); Y. Fang, US Food and Drug Administration (United States) and Univ. of Waterloo (Canada); A. Badano, US Food and Drug Administration (United States)

Evaluating radiation damage to scintillating plastic fibers with Monte Carlo simulations [8668-191]
A. L. McNamara, S. J. Blake, The Univ. of Sydney (Australia) and Ingham Institute for Applied Medical Research (Australia); P. Vial, The Univ. of Sydney (Australia), Ingham Institute for Applied Medical Research (Australia), and Liverpool and Macarthur Cancer Therapy Ctrs. (Australia); L. Holloway, The Univ. of Sydney (Australia), Ingham Institute for Applied Medical Research (Australia), Liverpool and Macarthur Cancer Therapy Ctrs. (Australia), Univ. of Wollongong (Australia), and Univ. of New South Wales (Australia); P. B. Greer, Univ. of Newcastle (Australia) and Calvary Mater Newcastle Hospital (Australia); Z. Kuncic, The Univ. of Sydney (Australia)

POSTER SESSION: RECONSTRUCTION

A 2.5 dimensional vein imaging system for venipuncture [8668-192]
X. Hu, Y. Zhou, Z. Wu, Beijing Institute of Technology (China)

Noise reduction for cone-beam SPECT by penalized reweighted least-squares projection restoration [8668-194]
H. Zhang, Beijing Institute of Technology (China) and Stony Brook Univ. (United States); J. Wen, D. Shi, R. Yang, Beijing Institute of Technology (China); J. Wang, Univ. of Texas Southwestern Medical Ctr. (United States); Z. Liang, Stony Brook Univ. (United States)
Iterative image reconstruction for sparse-view CT using normal-dose image induced total variation prior [8668-196]
Y. Zhang, Southern Medical Univ. (China); J. Ma, Southern Medical Univ. (China) and Stony Brook Univ., SUNY (United States); J. Huang, H. Zhang, Z. Bian, D. Zeng, Q. Feng, Southern Medical Univ. (China); Z. Liang, Stony Brook Univ., SUNY (United States); W. Chen, Southern Medical Univ. (China)

Semi-dynamic preconditioned alternating projection MAP ECT reconstruction from low-dose ECT [8668-197]
A. Krol, SUNY Upstate Medical Univ. (United States); S. Li, Sun Yat-sen Univ. (China); Y. Xu, Sun Yat-sen Univ. (United States) and Syracuse Univ. (United States); J. Zhang, Syracuse Univ. (United States); L. O. Vogelsang, VirtualScopics (United States); L. Shen, Syracuse Univ. (United States); D. H. Feiglin, SUNY Upstate Medical Univ. (United States)

A new imaging method for real-time 3D x-ray reconstruction [8668-198]
M. Tahtali, S. K. Saha, A. J. Lambert, M. R. Pickering, Univ. of New South Wales, Canberra (Australia)

Characterization of a digital x-ray detector for region of interest tuberculosis screening [8668-199]
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