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9033 2H Calibration-free coronary artery measurements for interventional device sizing using inverse geometry x-ray fluoroscopy: in vivo validation [9033-87]
M. T. Tomkowiak, A. N. Raval, M. S. Van Lysel, Univ. of Wisconsin-Madison (United States); T. Funk, Triple Ring Technologies, Inc. (United States); M. A. Speidel, Univ. of Wisconsin-Madison (United States)

9033 2I Necessary forward model specification accuracy for basis material decomposition in spectral CT [9033-88]
H. Bornefalk, M. Persson, M. Danielsson, KTH Royal Institute of Technology (Sweden)

9033 2J A study of the x-ray image quality improvement in the examination of the respiratory system based on the new image processing technique [9033-90]
Y. Nagai, M. Kitagawa, J. Torii, T. Iwase, T. Aso, K. Ihara, National Cancer Ctr. Hospital (Japan); M. Fujikawa, Y. Takeuchi, K. Suzuki, T. Ishiguro, A. Harra, Hitachi Medical Corp. (Japan)

9033 2K Relaxation times estimation in MRI [9033-91]
F. Basile, Univ. degli Studi di Napoli Parthenope (Italy); R. Caivano, A. Cammarota, IRCCS CROB (Italy); G. Ferraioî, V. Pascazio, Univ. degli Studi di Napoli Parthenope (Italy)
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J. P. Shah, Duke Univ. (United States) and Duke Univ. Medical Ctr. (United States);
S. D. Mann, Duke Univ. Medical Ctr. (United States); R. L. McKinley, ZumaTek, Inc. (United States); M. P. Tornai, Duke Univ. (United States) and Duke Univ. Medical Ctr. (United States)

9033 2M  C-arm perfusion imaging with a fast penalized maximum-likelihood approach [9033-93]
R. Frysch, T. Pfeiffer, S. Bannasch, Otto-von-Guericke-Univ. Magdeburg (Germany);
S. Serowy, Univ. Medical Ctr. Magdeburg (Germany); S. Gugel, Otto-von-Guericke-Univ. Magdeburg (Germany); M. Skalej, Univ. Medical Ctr. Magdeburg (Germany); G. Rose, Otto-von-Guericke-Univ. Magdeburg (Germany)

9033 2N  Simultaneous motion estimation and image reconstruction (SMEIR) for 4D cone-beam CT [9033-94]
J. Wang, X. Gu, The Univ. of Texas Southwestern Medical Ctr. at Dallas (United States)

9033 2O  Three-dimensional image guided extrapolation for cone-beam CT image reconstruction [9033-95]
B. Nett, GE Healthcare (United States)

9033 2P  Anti-scatter grid evaluation for wide-cone CT [9033-96]
R. Melnyk, J. Boudry, GE Healthcare (United States); X. Liu, Missouri Univ. of Science and Technology (United States); M. Adamak, GE Healthcare (United States)

9033 2Q  Variance-based iterative image reconstruction from few views in limited-angle C-arm computed tomography [9033-97]
W. El Hakimi, G. Sakas, Technische Univ. Darmstadt (Germany)

9033 2R  An experimental study on the noise correlation properties of CBCT projection data [9033-98]
H. Zhang, Southern Medical Univ. (China) and The Univ. of Texas Southwestern Medical Ctr. at Dallas (United States); L. Ouyang, The Univ. of Texas Southwestern Medical Ctr. at Dallas (United States); J. Ma, J. Huang, W. Chen, Southern Medical Univ. (China); J. Wang, The Univ. of Texas Southwestern Medical Ctr. at Dallas (United States)

9033 2S  A sinogram based technique for image correction and removal of metal clip artifacts in cone beam breast CT [9033-99]
T. Wang, Y. Shen, Y. Zhong, C.-J. Lai, The Univ. of Texas M.D. Anderson Cancer Ctr. (United States); J. Wang, First Affiliated Hospital of Xinjiang Medical Univ. (China); C. C. Shaw, The Univ. of Texas M.D. Anderson Cancer Ctr. (United States)

9033 2T  Preliminary study of region-of-interest image reconstruction with intensity weighting in cone-beam CT using iterative algorithm [9033-100]
K. Son, Korea Advanced Institute of Science and Technology (Korea, Republic of) and Sungkyunkwan Univ. School of Medicine (Korea, Republic of); J. Lee, Y. Lee, J. S. Kim, S. Cho, Korea Advanced Institute of Science and Technology (Korea, Republic of)
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<td>G. K. Yadava, D. Pal, J. Hsieh, GE Healthcare (United States)</td>
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<td>V.-G. Nguyen, Le Quy Don Technical Univ. (Viet Nam); S.-J. Lee, Paichai Univ (Korea, Republic of)</td>
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<td>M. A. Gavrielides, Q. Li, R. Zeng, K. J. Myers, B. Sahiner, N. Petrick, U.S. Food and Drug Administration (United States)</td>
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| 9033 33 | Sinogram rebinning and frequency boosting for high resolution iterative CT reconstruction with focal spot deflection               | J. Wang, Y. Long, L. Fu, X. Rui, GE Global Research Ctr. (United States); E. A. Kazerooni, Univ. of Michigan Hospital (United States); B. De Man, GE Global Research Ctr. (United States) |
| 9033 34 | A multi-resolution approach to retrospectively gated cardiac micro-CT reconstruction                                                     | D. P. Clark, G. A. Johnson, C. T. Badea, Duke Univ. Medical Ctr. (United States)                |
| 9033 35 | Generalized least-squares CT reconstruction with detector blur and correlated noise models                                               | J. W. Stayman, W. Zbijewski, S. Tilley II, J. Siewerdsen, Johns Hopkins Univ. (United States)    |
9033 36  **LBP-based penalized weighted least-squares approach to low-dose cone-beam computed tomography reconstruction** [9033-113]
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9033 38  **Low-dose CT reconstruction with patch based sparsity and similarity constraints** [9033-115]
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9033 39  **Noise study on cone-beam CT FDK image reconstruction by improved area-simulating-volume technique** [9033-116]
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H. Der Sarkissian, LUNAM Univ., Univ. de Nantes, IRCCyN, CNRS (France) and KEOSYS (France); B. Recur, Australian National Univ. (Australia); J. Guédon, LUNAM Univ., Univ. de Nantes, IRCCyN, CNRS (France); P. Bléry, LUNAM Univ., Univ. de Nantes, IRCCyN, CNRS (France) and LOAD INSERM (France); P. Pielt, LUNAM Univ., Univ. de Nantes, LOAD INSERM (France); Y. Amouriq, LUNAM Univ., Univ. de Nantes, IRCCyN, CNRS (France) and LOAD INSERM (France)

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X. Wang, Y. Zou, Toshiba Medical Research Institute (United States)

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9033 3O  Characterization of a silicon strip detector for photon-counting spectral CT using monoenergetic photons from 40 keV to 120 keV [9033-131]
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A. Jain, D. R. Bednarek, S. Rudin, Toshiba Stroke and Vascular Research Ctr., Univ. at Buffalo (United States)
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9033 3Z  Comparison of different approaches of estimating effective dose from reported exposure data in 3D imaging with interventional fluoroscopy systems [9033-143]
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9033 40  Improved-resolution real-time skin-dose mapping for interventional fluoroscopic procedures [9033-144]
V. K. Rana, S. Rudin, D. R. Bednarek, Toshiba Stroke and Vascular Research Ctr., Univ. at Buffalo (United States)

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M. Müllner, H. Schlattl, U. Oeh, C. Hoeschen, Helmholtz Zentrum München GmbH (Germany); O. Dietrich, Ludwig-Maximilians-Univ. Hospital München (Germany)

9033 4B Projection-based energy weighting on photon-counting x-ray images in digital subtraction mammography: a feasibility study [9033-156]
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T. Zhou, U. Lundström, KTH Royal Institute of Technology (Sweden); T. Thüring, S. Rutishauser, Paul Scherrer Institut (Switzerland) and Swiss Federal Institute of Technology (Switzerland); D. H. Larsson, KTH Royal Institute of Technology (Sweden); M. Stampanoni, Paul Scherrer Institut (Switzerland) and Swiss Federal Institute of Technology (Switzerland); C. David, Paul Scherrer Institut (Switzerland); H. M. Hertz, A. Burvall, KTH Royal Institute of Technology (Sweden)

Increasing the field of view of x-ray phase contrast imaging using stitched gratings on low absorbent carriers

J. Meiser, M. Amberger, Karlsruher Institut für Technologie (Germany); M. Willner, Technische Univ. München (Germany); D. Kunka, P. Meyer, F. Koch, Karlsruher Institut für Technologie (Germany); A. Hipp, Helmholtz-Zentrum Geesthacht (Germany); M. Walter, microworks GmbH (Germany); F. Pfeiffer, Technische Univ. München (Germany); J. Mohr, Karlsruher Institut für Technologie (Germany)

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W. Cai, Univ. of Rochester Medical Ctr. (United States); R. Ning, Univ. of Rochester Medical Ctr. (United States), Univ. of Rochester (United States), and Koning Corp. (United States); J. Liu, Univ. of Rochester (United States)

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J. Wolf, M. Chabior, Technische Univ. München (Germany); J. Sperl, GE Global Research Ctr. (Germany); A. Malecki, Technische Univ. München (Germany); D. Bequè, C. Cozzini, GE Global Research Ctr. (Germany); F. Pfeiffer, Technische Univ. München (Germany)

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S. Xu, Southern Illinois Univ. Carbondale (United States); C. R. Inscoe, J. Lu, O. Zhou, The Univ. of North Carolina at Chapel Hill (United States) and UNC Lineberger Comprehensive Cancer Ctr. (United States); Y. Chen, Southern Illinois Univ. Carbondale (United States)

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K. Li, J. Tang, G.-H. Chen, Univ. of Wisconsin-Madison (United States)

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C. Lee, J. Park, Y. Ko, J. Baek, Yonsei Univ. (Korea, Republic of)

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Y. Rakvongthai, Massachusetts General Hospital (United States); W. Worstell, Photo Diagnostic Systems Inc. (United States) and Massachusetts General Hospital (United States); G. El Fakhri, J. Ouyang, Massachusetts General Hospital (United States)
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S. E. Park, J. G. Kim, M. A. A. Hegazy, M. H. Cho, S. Y. Lee, Kyung Hee Univ. (Korea, Republic of)

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S. D. Mann, Duke Univ. Medical Ctr. (United States); R. L. McKinley, ZumaTek, Inc. (United States);
M. P. Tornai, Duke Univ. (United States) and Duke Univ. Medical Ctr. (United States)

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Awards

Robert F. Wagner Award

Robert F. Wagner was an active scientist in the SPIE Medical Imaging meeting, starting with the first meeting in 1972 and continuing throughout his career. He ensured that the BRH, and subsequently the CDRH, was a sponsor for the early and subsequent Medical Imaging meetings, helping to launch and ensure the historical success of the meeting. The Robert F. Wagner All-Conference Best Student Paper Award (established 2014) is acknowledgment of his many important contributions to the Medical Imaging meeting and his many important advances to the field of medical imaging.

This award is cosponsored by:

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A. Martínez-Torteya, J. A. Rodriguez-Rojas, J. M. Celaya-Padilla, J. I. Galván-Tejada, V. M. Treviño-Alvarado, Sr., J. G. Tamez-Peña, Tecnológico de Monterrey (Mexico)

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Conference Awards

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Best Student Paper Awards sponsored by Carestream

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M. Zürch, Friedrich-Schiller-Univ. Jena (Germany); S. Foertsch, Siemens AG (Germany) and Friedrich-Alexander-Univ. Erlangen (Germany); M. Matzas, Siemens AG (Germany); K. Pachmann, Univ. Hospital Jena (Germany) and Ctr. for Transfusion Medicine (Germany); R. Kuth, Siemens AG (Germany); C. Spielmann, Friedrich-Schiller-Univ. Jena (Germany) and Helmholtz Institute Jena (Germany)

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