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Front Matter: Volume 7961

, "Front Matter: Volume 7961," Proc. SPIE 7961, Medical Imaging 2011: Physics of Medical Imaging, 796101 (22 April 2011); doi: 10.1117/12.895342

SPIE.

Event: SPIE Medical Imaging, 2011, Lake Buena Vista (Orlando), Florida, United States

PROGRESS IN BIOMEDICAL OPTICS AND IMAGING

Vol. 12, No. 30

Medical Imaging 2011

Physics of Medical Imaging

Norbert J. Pelc
Ehsan Samei
Robert M. Nishikawa
Editors

13–17 February 2011
Lake Buena Vista, Florida, United States

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SPIE

Volume 7961
Part One of Three Parts

Proceedings of SPIE, 1605-7422, v. 7961

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Please use the following format to cite material from this book:

Author(s), "Title of Paper," in *Medical Imaging 2011: Physics of Medical Imaging*, edited by Norbert J. Pelc, Ehsan Samei, Robert M. Nishikawa, Proceedings of SPIE Vol. 7961 (SPIE, Bellingham, WA, 2011) Article CID Number.

ISSN 1605-7422

ISBN 9780819485038

Published by

SPIE

P.O. Box 10, Bellingham, Washington 98227-0010 USA

Telephone +1 360 676 3290 (Pacific Time) · Fax +1 360 647 1445

SPIE.org

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7961 2B	X-ray dose reduction by adaptive source equalization and electronic region-of-interest control [7961-82] S. Burion, A. Sandman, K. Bechtel, Triple Ring Technologies, Inc. (United States); E. Solomon, NovaRay Medical, Inc. (United States); T. Funk, Triple Ring Technologies, Inc. (United States)
7961 2C	Effect of contrast magnitude and resolution metric on noise-resolution tradeoffs in x-ray CT imaging: a comparison of non-quadratic penalized alternating minimization and filtered backprojection algorithms [7961-83] J. D. Evans, Virginia Commonwealth Univ. (United States); D. G. Politte, B. R. Whiting, J. A. O'Sullivan, Washington Univ. in St. Louis (United States); J. F. Williamson, Virginia Commonwealth Univ. (United States)
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7961 2F	How do we measure dose and estimate risk? (Invited Paper) [7961-86] C. Hoeschen, D. Regulla, H. Schlattl, N. Petoussi-Henss, W. B. Li, M. Zankl, Helmholtz Zentrum München (Germany)
7961 2G	The accuracy of estimated organ doses from Monte Carlo CT simulations using cylindrical regions of interest within organs [7961-87] M. Khatonabadi, J. Sandberg, Univ. of California, Los Angeles (United States); N. Eshghi, Heinrich-Heine-Univ. Düsseldorf (Germany); J. J. DeMarco, Univ. of California, Los Angeles (United States); E. Angel, Toshiba America Medical Systems, Inc. (United States); A. C. Turner, D. Zhang, C. C. Cagnon, M. F. McNitt-Gray, Univ. of California, Los Angeles (United States)

- 7961 2H **An algorithm for intelligent sorting of CT-related dose parameters** [7961-88]
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- 7961 2L **A clinical comparison study of a novel statistical iterative and filtered backprojection reconstruction** [7961-92]
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- 7961 2N **Iterative helical cone-beam CT reconstruction using graphics hardware: a simulation study** [7961-94]
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- 7961 2P **Accelerate multi-dimensional CT scanner simulation with GPU** [7961-96]
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- 7961 2Q **OpenCL: a viable solution for high-performance medical image reconstruction?** [7961-97]
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- 7961 2R **Improved total variation regularized image reconstruction (iTV) applied to clinical CT data** [7961-98]
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- 7961 2T **Backprojection-filtration image reconstruction from partial cone-beam data for scatter correction** [7961-100]
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- 7961 2U **Fast 4D cone-beam reconstruction using the McKinnon-Bates algorithm with truncation correction and nonlinear filtering** [7961-101]
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- 7961 2W **Contrast adaptive total p-norm variation minimization approach to CT reconstruction for artifact reduction in reduced-view brain perfusion CT** [7961-103]
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- 7961 2X **Expectation maximization and total variation-based model for computed tomography reconstruction from undersampled data** [7961-104]
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- 7961 2Y **A comparison of four algorithms for metal artifact reduction in CT imaging** [7961-105]
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- 7961 2Z **A study on regularization parameter choice for interior tomography based on truncated Hilbert transform** [7961-107]
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- 7961 30 **Interior tomography from low-count local projections and associated Hilbert transform data** [7961-108]
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- 7961 31 **Compressed sensing algorithms for fan-beam CT image reconstruction** [7961-109]
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- 7961 33 **Refinement of motion correction strategies for lower-cost CT for under-resourced regions of the world** [7961-111]
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- 7961 34 **Accelerating statistical image reconstruction algorithms for fan-beam x-ray CT using cloud computing** [7961-112]
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- 7961 35 **Quantitative evaluation method of noise texture for iteratively reconstructed x-ray CT images** [7961-113]
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- 7961 36 **An efficient scatter correction algorithm based on pre-reconstructed images of contrast enhancement and sparse-viewed Monte Carlo simulation** [7961-114]
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- 7961 37 **Task-based comparative study of iterative image reconstruction methods for limited-angle x-ray tomography** [7961-115]
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- 7961 38 **Limited data tomographic image reconstruction via dual formulation of total variation minimization** [7961-116]
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- 7961 3B **A scatter artifact reduction technique in dual-energy computed tomography systems** [7961-119]
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- 7961 3C **Investigation of a method to estimate the MTF and NPS of CT towards creating an international standard** [7961-120]
C. C. Brunner, Technische Univ. München (Germany) and Helmholtz Zentrum München (Germany); B. Renger, Technische Univ. München (Germany); C. Hoeschen, Helmholtz Zentrum München (Germany); I. S. Kyprianou, U.S. Food and Drug Administration (United States)
- 7961 3D **XCAT/DRASIM: a realistic CT/human-model simulation package** [7961-121]
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- 7961 3E **Longitudinal tube modulation for chest and abdominal CT examinations: impact on effective patient doses calculations** [7961-122]
F. Zanca, K. Michielsen, M. Depuydt, J. Jacobs, J. Nens, K. Lemmens, R. Oyen, H. Bosmans, Univ. Hospitals Leuven (Belgium)
- 7961 3F **Dosimetric quality control of Eclipse treatment planning system using pelvic digital test object** [7961-123]
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- 7961 3G **Estimation of organ and effective dose to the patient during spinal surgery with a cone-beam O-arm system** [7961-124]
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- 7961 3J **Fluence estimation by deconvolution via l_1 -norm minimization** [7961-127]
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- 7961 3K **A novel noise suppression solution in cone-beam CT images** [7961-128]
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- 7961 3L **Noise reduction by projection direction dependent diffusion for low dose fan-beam x-ray computed tomography** [7961-129]
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- 7961 3N **Noise characteristics of x-ray differential phase contrast CT** [7961-131]
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- 7961 3O **Contrast-to-noise of a non-ideal multi-bin photon-counting x-ray detector** [7961-132]
J. E. Tkaczyk, V. Lobastov, D. D. Harrison, GE Global Research (United States); A. S. Wang, Stanford Univ. (United States)
- 7961 3P **MCNP simulation of radiation doses distributions in a water phantoms simulating interventional radiology patients** [7961-134]
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- 7961 3Q **Noise reduction in dual-source CT scanning** [7961-135]
M. Petersilka, B. Krauss, K. Stierstorfer, Siemens AG (Germany)
- 7961 3R **Relative dose in dual energy fast-kVp switching and conventional kVp imaging: spatial frequency dependent noise characteristics and low contrast imaging** [7961-136]
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K. R. Hoffmann, Univ. at Buffalo (United States) and Imagination Software Corp. (United States); T. Dorazio, J. Lee, J.-H. Jung, E. B. Pitman, Univ. at Buffalo (United States); A. Walczak, Univ. at Buffalo (United States) and Imagination Software Corp. (United States); X. Chen, Univ. at Buffalo (United States)
- 7961 3T **Susceptibility quantification in MRI using modified conjugate gradient least square method** [7961-138]
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- 7961 3V **Histogram analysis of ADC in brain tumor patients** [7961-140]
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- 7961 3W **The development and application of calculated readout in spectral parallelism in magnetic resonance imaging** [7961-141]
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- 7961 3X **Voxel magnetic field disturbance from remote vasculature in BOLD fMRI** [7961-142]
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- 7961 3Y **Multiresolution voxel decomposition of complex-valued BOLD signals reveals phasor turbulence** [7961-143]
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- 7961 41 **New method for tuning hyperparameter for the total variation norm in the maximum a posteriori ordered subsets expectation maximization reconstruction in SPECT myocardial perfusion imaging** [7961-146]
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- 7961 42 **Effect of de-noising and DDRV correction on cone-beam SPECT reconstruction with non-uniform attenuation** [7961-147]
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- 7961 43 **Quality controls and delineation protocol of PET/CT gated acquisition in function of the movement amplitude, size of spheres, and signal over background ratio** [7961-148]
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- 7961 44 **Using spherical basis functions on a polar grid for iterative image reconstruction in small animal PET** [7961-149]
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- 7961 45 **Full modeling of AX-PET: a new PET device with axially oriented crystals based on Geant4 and GATE** [7961-150]
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- 7961 46 **Observing the high resolution capabilities of a silicon PET insert probe** [7961-151]
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Y. Hung, National Taiwan Univ. (Taiwan); Y. Dong, Illinois Institute of Technology (United States) and Toshiba Medical Research Institute USA, Inc. (United States); F. R. Chern, W. Wang, National Taiwan Univ. (Taiwan); C.-M. Kao, C.-T. Chen, The Univ. of Chicago (United States); C.-Y. Chou, National Taiwan Univ. (Taiwan)
- 7961 48 **Evaluation of image gating as an approach for noise estimation and optimisation of SPECT images** [7961-153]
K. Alzimami, King Saud Univ. (Saudi Arabia) and Univ. of Surrey (United Kingdom); S. Sassi, Royal Marsden Hospital NHS Foundation Trust (United Kingdom); A. Alshehri, Riyadh Military Hospital (Saudi Arabia); N. Spyrou, Univ. of Surrey (United Kingdom) and King Saud Univ. (Saudi Arabia); A. Britten, St. George's Hospital (United Kingdom)

- 7961 49 **Singles-prompt: a novel method to estimate random coincidences by using prompts and singles information** [7961-154]
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- 7961 4A **An investigation of an application specific PET prototype with inhomogeneous-energy resolution detectors** [7961-155]
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- 7961 4B **Basic design and simulation of a SPECT microscope for in vivo stem cell imaging** [7961-156]
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- 7961 4D **Verification of nonlinearity in digital x-ray images using surrogate method** [7961-157]
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- 7961 4E **A software tool for quality assurance of computed/digital radiography (CR/DR) systems** [7961-158]
N. Desai, iCRco, Inc. (United States); D. J. Valentino, iCRco, Inc. (United States) and Univ. of California, Los Angeles (United States)
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- 7961 4G **Measuring the presampled MTF from a reduced number of flat-field images using the noise response (NR) method** [7961-160]
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- 7961 4I **Effect of x-ray incident direction and scintillator layer design on image quality of indirect-conversion flat-panel detector with GOS phosphor** [7961-162]
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- 7961 4J **Graphical user interface for a dual-module EMCCD x-ray detector array** [7961-163]
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- 7961 4K **CMOS image sensor based x-ray detector noise characterization and its fixed pattern noise correction method** [7961-164]
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- 7961 4L **Selenium coated CMOS passive pixel array for medical imaging** [7961-165]
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- 7961 4M **CMOS digital intra-oral sensor for x-ray radiography** [7961-166]
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- 7961 4N **Design and fabrication of single grain TFTs and lateral photodiodes for low dose x-ray detection** [7961-167]
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- 7961 4P **Study of gain phenomenon in lateral metal-semiconductor-metal detectors for indirect conversion medical imaging** [7961-170]
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- 7961 4Q **Complete erasing of ghost images caused by deeply trapped electrons on computed radiography plates** [7961-171]
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- 7961 4S **Evaluation and comparison of high-resolution (HR) and high-light (HL) phosphors in the micro-angiographic fluoroscope (MAF) using generalized linear systems analyses (GMTF, GDQE) that include the effect of scatter, magnification, and detector characteristics** [7961-173]
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- 7961 4U **Temperature anomaly detection and estimation using microwave radiometry and anatomical information** [7961-175]
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- 7961 4V **Optimization of differential phase-contrast imaging setups using simulative approaches** [7961-176]
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- 7961 4W **SEM and microCT validation for en face OCT imagistic evaluation of endodontically treated human teeth** [7961-178]
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- 7961 4X **Performance evaluation of a differential phase-contrast cone-beam (DPC-CBCT) system for soft tissue imaging** [7961-179]
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- 7961 4Y **X-ray tube-based phase CT: spectrum polychromatics and imaging performance** [7961-180]
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