PAPERS

7007 Estimation of noise properties for TV-regularized image reconstruction in computed tomography
Adrian A Sánchez

7035 Potential for enhancing external beam radiotherapy for lung cancer using high-Z nanoparticles administered via inhalation
Yao Hao, Yucel Altundal, Michele Moreau, Erno Sajo, Rajiv Kumar and Wilfred Ngwa

7045 PET performance and MRI compatibility evaluation of a digital, ToF-capable PET/MRI insert equipped with clinical scintillators
David Schug, Jakob Wehner, Peter Michael Dueppenbecker, Bjoern Weissler, Pierre Gebhardt, Benjamin Goldschmidt, Andre Salomon, Fabian Kiessling and Volkmar Schulz

7069 Monte Carlo study of microdosimetric diamond detectors
Paola Solevi, Giulio Magrin, Davide Moro and Ramona Mayer

7085 Imaging of prompt gamma rays emitted during delivery of clinical proton beams with a Compton camera: feasibility studies for range verification
Jerimy C Polf, Stephen Avery, Dennis S Mackin and Sam Beddar

7101 Modulation index for VMAT considering both mechanical and dose calculation uncertainties
Jong Min Park, So-Yeon Park and Hyounghyun Kim

7127 Improved quantification for local regions of interest in preclinical PET imaging
J Cal-González, S C Moore, M-A Park, J L Herraiz, J J Vaquero, M Desco and J M Udías

7151 A motorized solid-state phantom for patient-specific dose verification in ion beam radiotherapy
K Henkner, M Winter, G Echner, B Ackermann, S Brons, J Horn, O Jäkel and C P Karger

7165 Quantification of lung tumor rotation with automated landmark extraction using orthogonal cine MRI images
Chiara Paganelli, Danny Lee, Peter B Greer, Guido Baroni, Marco Riboldi and Paul Keall

7179 Mean glandular dose coefficients \( (D_g N) \) for x-ray spectra used in contemporary breast imaging systems
Anita Nosratieh, Andrew Hernandez, Sam Z Shen, Martin J Yaffe, J Anthony Seibert and John M Boone

7191 Physical characterization of single convergent beam device for teletherapy: theoretical and Monte Carlo approach
R G Figueroa and M Valente

7207 An adaptive paradigm for computer-aided detection of colonic polyps
Huafeng Wang, Zhengrong Liang, Lihong C Li, Hao Han, Bowen Song, Perry J Pickhardt, Matthew A Barish and Chris E Lascarides

7229 Development of a real-time monitoring system for intra-fractional motion in intracranial treatment using pressure sensors
Hiroki Inata, Fujio Araki, Yuta Kuribayashi, Yasushi Hamamoto, Shigeki Nakayama, Noritaka Sodeoka, Tetsukazu Kiriya and Osamu Nishizaki

7245 Realization of fluence field modulated CT on a clinical TomoTherapy megavoltage CT system
Timothy P Szczytkowicz, James Hermus, Mark Geurts and Jennifer Smilowitz

(Continued overleaf)
X-ray specks: low dose in vivo imaging of lung structure and function
Marcus J Kitchen, Genevieve A Buckley, Andrew F T Leong, Richard P Carnibella, Andreas Fouras, Megan J Wallace and Stuart B Hooper

Atlas-guided prostate intensity modulated radiation therapy (IMRT) planning
Yang Sheng, Taoran Li, You Zhang, W Robert Lee, Fang-Fang Yin, Yaorong Ge and Q Jackie Wu

Convex optimization of MRI exposure for mitigation of RF-heating from active medical implants
Juan Córcoles, Earl Zastrow and Niels Kuster

Monte Carlo calculations of PET coincidence timing: single and double-ended readout
Stephen E Derenzo, Woon-Seng Choong and William W Moses

The electric field distribution in the brain during TTFIELDS therapy and its dependence on tissue dielectric properties and anatomy: a computational study
Cornelia Wenger, Ricardo Salvador, Peter J Basser and Pedro C Miranda

Singular value decomposition for photon-processing nuclear imaging systems and applications for reconstruction and computing null functions
Abhinav K Jha, Harrison H Barrett, Eric C Frey, Eric Clarkson, Luca Caucci and Matthew A Kupinski

Improved correction for the tissue fraction effect in lung PET/CT imaging
Beverley F Holman, Vesna Cuplov, Lynn Millner, Brian F Hutton, Toby M Maher, Ashley M Groves and Kris Thielemans

Thrombolysis using multi-frequency high intensity focused ultrasound at MHz range: an in vitro study
Dingjie Suo, Sijia Guo, Weili Lin, Xiaoning Jiang and Yun Jing