Physics in Medicine and Biology

Volume 55

Number 14, 21 July 2010

Editorial

Roberts Prize for the best paper published in 2009 Steve Webb and Simon Harris doi: 10.1088/0031-9155/55/14/E01

Papers

3947 FEATURED ARTICLE A comprehensive method for optical-emission computed tomography Andrew Thomas, James Bowsher, Justin Roper, Tim Oliver, Mark Dewhirst and Mark Oldham doi: 10.1088/0031-9155/55/14/001

3959 Skin age testing criteria: characterization of human skin structures by 500 MHz MRI multiple contrast and image processing Rakesh Sharma doi: 10.1088/0031-9155/55/14/002

3981 Enhanced accuracy of the permanent surveillance of IMRT deliveries by iterative deconvolution of DAVID chamber signal profiles H K Looe, D Harder, A Rühmann, K C Willborn and B Poppe doi: 10.1088/0031-9155/55/14/003

3993 Numerical study of oxygen transport in a carotid bifurcation Shigeru Tada doi: 10.1088/0031-9155/55/14/004

4011 Experimental study on photon-beam peripheral doses, their components and some possibilities for their reduction Ndimofor Chofor, Dietrich Harder, Antje Rühmann, Kay C Willborn, Tilo Wiezorek and Björn Poppe doi: 10.1088/0031-9155/55/14/005

4029 FEATURED ARTICLE Intensity modulation under geometrical uncertainty: a deconvolution approach to robust fluence Yankhua Fan and Ravinder Nath doi: 10.1088/0031-9155/55/14/006

4047 Monitoring the eye lens: which dose quantity is adequate? R Behrens and G Dietze doi: 10.1088/0031-9155/55/14/007


4083 Monte Carlo commissioning of clinical electron beams using large field measurements Tuathan P O'Shea, Daren L Sawkey, Mark J Foley and Bruce A Faddegon doi: 10.1088/0031-9155/55/14/009

4107 Water calibration for CT scanners with tube voltage modulation Ludwig Ritschl, Frank Bergner, Christof Fleischmann and Marc Kachelrieß doi: 10.1088/0031-9155/55/14/010

4119 A small animal holding fixture system with positional reproducibility for longitudinal multimodal imaging Daisuke Kokuryo, Yuichi Kimura, Takayuki Obata, Taiga Yamaya,
Kazunori Kawamura, Ming-Rong Zhang, Iwao Kanno and Ichio Aoki doi: 10.1088/0031-9155/55/14/011

4131 Image-based point spread function implementation in a fully 3D OSEM reconstruction algorithm for PET E Rapisarda, V Bettinardi, K Thielemans and M C Gilardi doi: 10.1088/0031-9155/55/14/012

4153 Computational simulation of breast compression based on segmented breast and fibroglandular tissues on magnetic resonance images Tzu-Ching Shih, Jeon-Hor Chen, Dongxu Liu, Ke Nie, Lizhi Sun, Muqing Lin, Daniel Chang, Orhan Nalcioglu and Min-Ying Su doi: 10.1088/0031-9155/55/14/013

4169 Design of a novel phase contrast x-ray imaging system for mammography Peter R T Munro, Konstantin Ignatyev, Robert D Speller and Alessandro Olivo doi: 10.1088/0031-9155/55/14/014


Note

N395 A VMAT planning solution for prostate patients using a commercial treatment planning system C J Boylan, C Golby and C G Rowbottom doi: 10.1088/0031-9155/55/14/N01