

APPENDIX XI

PUBLISHED ABSTRACTS

by members of the Medical Physics Unit : 2011 calendar year (x 62)
(names of MPU staff members are underlined, students are indicated by †)

1. M. Morcos†, K. Sultanem, G. Stroian, F. DeBlois, *Atlas-based segmentation in head and neck IMRT*, Int. J. Radiat. Oncol., Biol., Phys. **81** (2), S821 (2011).
2. A. Alexander†, M. Renaud†, J. Seuntjens, *All-inclusive DOSXYZnrc source for Monte Carlo QA of external beam radiotherapy*, Med. Phys. **38** (6), 3382 (2011); SU-D-BRB-03 - Short oral presentation/ abs doi:10.1118/1.3611521.
3. E. Mitrou†, J. Thebaut, A. Alexander†, F. DeBlois, *A Monte Carlo based approach to electron beam treatment planning* Med. Phys. **38** (6), 3383 (2011); doi:10.1118/1.3611522; SU-D-BRB-04.
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5. E. Poon†, R Al-Wassia, C.R. Freeman, W. Parker, *Dosimetric impact of patient positioning and anatomical changes over the course of craniospinal irradiation using helical tomotherapy*, Med. Phys. **38** (6), 3451 (2011); SU-E-J-43.
6. I. El Naqa, *Investigation of joint registration/segmentation for multimodality target definition in image-guided radiotherapy*, Med. Phys. **38** (6), 3455 (2011); SU-E-J-58.
7. I. El Naqa, *An anomaly detector for radiotherapy quality assurance using machine learning*, Med. Phys. **38** (6), 3458 (2011); SU-E-J-69.
8. G. Twork†, H.J. Patrocino, R. Ruo, E.T. Soisson, D. Roberge, *Validation of the spatial accuracy of the ExacTrac® adaptive gating system*, Med. Phys. **38** (6), 3477 (2011); SU-E-J-149.
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10. J. Kildea†, N. Anjum, M. Evans, W. Parker, *Comprehensive web-based QA in radiation oncology*, Med. Phys. **38** (6), 3498 (2011); SU-E-T-57.
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14. M. Morcos†, K. Sultanem, B. Bahoric, G. Stroian, F. DeBlois, *Evaluation of deformable contour propagation*, Med. Phys. **38** (6), 3550 (2011); SU-E-T-275.
15. M. Morcos†, K. Sultanem, G. Stroian, F. DeBlois, *Evaluation of atlas based segmentation algorithms: VelocityAI vs. MIMvista*, Med. Phys. **38** (6), 3550 (2011); SU-E-T-274.
16. M. Evans, J. Larkin, B. Siva, P. Leger, H.J. Patrocino, W. Parker, *Linac bunker access control system for an ExacTrac/Novalis imaging system*, Med. Phys. **38** (6), 3556 (2011); SU-E-T-300.
17. A. Paxton, S. Davis, L. DeWerd, *The effects of microsphere and surrounding material composition on Y-90 dose kernels*, Med. Phys. **38** (6), 3561 (2011); SU-E-T-322.
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19. A. Alexander†, E.T. Soisson, A. Sarfehnia†, T. Hijal, F. DeBlois, J. Seuntjens, *The development of intensity and energy modulated electron radiotherapy: An alternative to photon volumetric modulated arc therapy*, Med. Phys. **38** (6), 3580 (2011); SU-E-T-401.

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25. K. Singh†, A. Sarfehnia†, N. Tomic, L. Liang, F. DeBlois, J. Seuntjens, D. Lewis, H. Shih, S. Devic, *Prototyping compositions of novel radiochromic film types: Towards complete absorbed dose energy independence*, Med. Phys. **38** (6), 3725 (2011); MO-F-214-04.
26. A. Sarfehnia†, K. Singh†, S. Devic, J. Seuntjens, *Monte Carlo optimized composition and structure of a novel energy: Independent radiochromic film*, Med. Phys. **38** (6), 3766 (2011); TU-E-BRB-02.
27. H. Mohammed, S. Devic, N. Tomic, S. Adelajian, F. DeBlois, S. Lehnert, S. Faria, *Uptake volume histograms: A novel avenue towards delineation of Biological Target Volumes (BTV) in radiotherapy*, Med. Phys. **38** (6), 3786 (2011); TU-G-211-01.
28. S. Lee†, G. Stroian, J. Seuntjens, I. El Naqa, *Model for time-dependent radiation-induced lung disease risk based on systematic image-based scoring and Monte-Carlo dose calculations*, Med. Phys. **38** (6), 3826 (2011); WE-G-BRA-02.
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33. E. Mitrou†, A. Alexander†, F. DeBlois, J. Thebaut, *Monte Carlo based electron beam treatment planning for breast cancer*, Radioth. Oncol. - J. Eur. Soc. Ther. Radiol. Oncol. **99**, S176-177 (2011).
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37. C. Mark, G.B. Pike, *Hyperoxic versus hypercapnic BOLD calibration under precise end-tidal control to improve the estimation of oxygen consumption*, International Society of Magnetic Resonance Imaging Conference, Montreal, Québec, May 07-13, 2011.
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39. I.R. Levesque, N. Stikov, G.B. Pike, J.M. Pauly, *Drift in the magnetization transfer signal: Effect on quantitative MT experiments*, International Society of Magnetic Resonance Imaging Conference, Montreal,

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 45. S. Davis, J.D. Moga, T.L. Pike, L.A. DeWerd, *Monte Carlo calculations and measurements of emitted photon spectra from a miniature x-ray source*, International Workshop on Recent Advances in Monte Carlo Techniques in Radiation Therapy, Montreal, Québec, June 08-10, 2011.
 46. A. Alexander†, E.T. Soisson, T. Hijal, A. Sarfehnia†, J. Seuntjens, *Plan comparison of modulated electron radiotherapy to conventional electron boost irradiation and volumetric modulated photon arc therapy for treatment of tumour bed boost in breast cancer*, International Workshop on Recent Advances in Monte Carlo Techniques in Radiation Therapy, Montreal, Québec, June 08-10, 2011.
 47. P. Papaconstadopoulos†, A. Alexander†, T. Connell†, J. Seuntjens, *Analytical scatter source model for modulated electron radiation therapy*, International Workshop on Recent Advances in Monte Carlo Techniques in Radiation Therapy, Montreal, Québec, June 08-10, 2011.
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 59. S. Lee†, G. Stroian, J. Seuntjens, I. El Naqa, *Model for time-dependent radiation-induced lung disease risk based on systematic image-based scoring and Monte Carlo dose calculations*, AAPM, Vancouver, British Columbia, July 31-August 04, 2011.
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