

## APPENDIX X

### PUBLISHED ABSTRACTS

by members of the Medical Physics Unit : 2012 calendar year (x 69)  
(names of MPU staff members are underlined, students are indicated by †)

1. M. Carrier-Vallières†, C.R. Freeman, S.R. Skamene, I. El Naqa, *Prediction of tumor outcomes through wavelet image fusion and texture analysis of PET/MR imaging*, Med Phys. **39**(6), 3615 (2012). SU-D-BRB-03.
2. P. Watson†, E. Mainegra-Hing, E.T. Soisson, I. El Naqa, J. Seuntjens, *Implementation of a fast Monte Carlo scatter correction for cone-beam computed tomography*, Med. Phys. **39**(6), 3625 (2012). SU-E-I-04.
3. D. Markel†, I. El Naqa, C.R. Freeman, M. Carrier-Vallières†, *Novel level set active contour algorithm for multimodality joint segmentation/registration using the Jensen-Rényi divergence*, Med Phys. **39**(6), 3678 (2012). SU-E-J-110
4. A. Dyess†, W. Parker, E. Poon, J. Seuntjens, *Dosimetric assessment of treatment using CBCT images*, Med Phys. **39**(6), 3700 (2012). <http://www.ncbi.nlm.nih.gov/pubmed/22756175>
5. P. Pater†, M. Bernal, I. El Naqa, J. Seuntjens, *Comparing DNA strand break yields for photons under different irradiation conditions with Geant4-DNA*, Med. Phys. **39**(6), 3703 (2012). SU-E-T-05.
6. G. Sayed, A. Hebshi, S. Devic, B. Moftah, *Leading 25 in 25: A bibliometric analysis of classics articles in IMRT*, Med. Phys. **39**, 3758 (2012).
7. M. Serban, N. Ybarra, K. Jeyaseelan, J. Seuntjens, *Treatment planning strategies for lung injury studies in rat models in 6 MV delivery*, Med. Phys. **39**(6), 3767 (2012). SU-E-T-276.
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9. M.J. Webster, S. Devic, T. Vuong, D. Scanderbeg, W.Y. Song, *Dynamic modulated brachytherapy*, Med. Phys. **39**, 3777 (2012).
10. D. Milroy†, H.J. Patrocinio, J. Seuntjens, *Monte Carlo modeling of the Novalis TX stereotactic radiosurgery mode*, Med. Phys. **39**(6), 3874 (2012). MO-F-BRB-05
11. L. DeWerd, J. Seuntjens, M. Rivard, M. McEwen, *Dosimetry for Ir-192 HDR brachytherapy: Present status and future direction*, Med. Phys. **39**(6), 3884-3885 (2012). TU-A-213AB-01
12. E. Chung†, S. Davis, J. Seuntjens, *Ion recombination in a liquid-filled ionization chamber in high-energy photon*, Med. Phys. **39**(6), 3887 (2012). TU-A-BRB-09
13. P. Papaconstadopoulos†, J. Seuntjens, *Fast and accurate hybrid source model for modulated electron radiotherapy*, Med. Phys. **39**(6), 3944 (2012). WE-C-BRB-04.
14. D. Markel†, I. El Naqa, *A novel level set active contour algorithm using the Jensen-Rényi divergence for tumor segmentation in PET*, Med Phys. **39**(6), 3961 (2012). WE-E-213CD-08.
15. S. Lee†, J. Bradley, N. Ybarra, K. Jeyaseelan, J. Seuntjens, I. El Naqa, *Bayesian network framework for biophysical radiation pneumonitis modeling*, Med. Phys. **39**(6), 3993-3994 (2012). TH-C-213AB-03.
16. A. Toltz†, N. Shin†, C. Laude, D. Roberge, C.R. Freeman, J. Seuntjens, W. Parker, *Risk of radiation-induced cardiotoxicity and secondary cancers in Hodgkin's lymphoma patients*, Med. Phys. **39**(6), 3994 (2012). TH-C-213AB-06.
17. E. Chung†, E. Conneely, R. Ruo, M. Foley, J. Seuntjens, *Clinical implementation of the new dosimetry formalism to IMRT quality assurance*, Med. Phys. **39**(6), 3998-3999 (2012). TH-C-BRB-10
18. H. Palmans, R. Alfonso, P. Andreo, R. Capote-Noy, M.S. Huq, J. Izewska, J. Johansson, W. Kilby, T.R. Mackie, A. Meghzi, K. Rosser, J. Seuntjens, W. Ullrich, *Best in physics (therapy): An international code of practice for the dosimetry of small static photon fields*, Med Phys **39**(6), 4009-10 (2012). TH-E-BRB-05.
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22. D. Milroy†, G. Dos Reis, J. Seuntjens, H.J. Patrocínio, *Validation of a commercial Monte Carlo code for stereotactic radiosurgery and stereotactic body radiation therapy*, COMP conference presentation, Med. Phys. **39**(7), 4620 (2012).
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24. A. Alexander†, J. Seuntjens, *Inverse treatment planning for modulated electrons and mixed photon and electron radiotherapy*, Med. Phys. **39**(7) 4622 (2012). DOI:10.1118/1.4740098
25. J. Renaud†, D. Marchington, J. Seuntjens, A. Sarfehnia, *Development of a graphite probe calorimeter for absolute clinical dosimetry: Numerical design optimization, prototyping and experimental proof-of-concept*, Med. Phys. **39**(7), 4623 (2012).

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27. T. Connell†, J. Seuntjens, *Scattering foil redesign for modulated electron radiotherapy*, Med. Phys. **39**(7), 4629 (2012).
28. M.D.C. Evans, R. Ruo, J. Seuntjens, C.R. Freeman, *RapidArc total body photon irradiation: A feasibility study*, Med. Phys. **39**(7), 4630 (2012).
29. E.T. Soisson, *An Inexpensive and Convenient phantom for quality assurance in image guidance based radiosurgery*, Med. Phys. **39**(7), 4633 (2012).
30. M. Serban, R. Ruo, A. Sarfehnia, W. Parker, M.D.C. Evans, *Commissioning of the Varian ECLIPSE eMC algorithm for clinical electron treatment planning*, Med. Phys. **39**(7), 4633 (2012). (poster) Thur Eve-45.
31. H. Palmans, R. Alfonso, P. Andreo, R. Capote-Noy, M.S. Huq, J. Izewska, J. Johansson, W. Kilby, T.R. Mackie, A. Meghzifene, K. Rosser, J. Seuntjens, W. Ullrich, *Best in physics (therapy): An international code of practice for the dosimetry of small static photon fields*, Med. Phys. **39**(7) 4633 (2012). DOI:10.1118/1.4740154
32. V. Thakur†, E.T. Soisson, R. Ruo, R. Doucet, W. Parker, J. Seuntjens, *Accuracy of stereotactic radiosurgery (SRS) with TomoTherapy as compared to linear accelerator and robotic based radiosurgery*, Med. Phys. **39**(7), 4634 (2012). Thur Eve – 50
33. S. Nasonkin†, A. Syme, *Application of plastic scintillating detectors to orthovoltage x-ray measurements*, Med. Phys. **39**, 4634 (2012).
34. A. Toltz†, N. Shin†, C. Laude, D. Roberge, C.R. Freeman, C., J. Seuntjens, W. Parker, *Prediction of risks of cardiac mortality and secondary cancers after radiotherapy for Hodgkin's lymphoma, non-Hodgkin's lymphoma, and breast cancer*, Med. Phys. **39**(7), 4639 (2012).
35. P. Watson†, E. Mainegra-Hing, E.T. Soisson, I. El Naqa, J. Seuntjens, *Scatter-B-Gon: Implementing a fast Monte Carlo cone-beam computed tomography scatter correction on real data*, Med. Phys. **39**(7), 4644 (2012).
36. A. Tessier, A. Yahya, M. Larocque, B.G. Fallone, A. Syme, *Response of a tumor xenograft model to radiation therapy using magnetic resonance spectroscopy*, Med. Phys. **39**, 4644 (2012).
37. R. Khatchadourian†, S. Davis, M.D.C. Evans, A. Licea, J. Seuntjens, J. Kildea, *Neutron production around a radiation therapy linac bunker: Monte Carlo simulations and physical measurements*, COMP, Med. Phys. **39**(7), 4645 (2012). Sci-Sat AM:Brachy - 04.
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41. O. Maria†, N. Ybarra, K. Jeyaseelan, Seuntjens, J., El Naqa, I. *Mesenchymal Stem Cells For Recovery From Radiation-Induced Lung Injury*, 3rd Quebec Conference on Therapeutic Resistance in Cancer, Montreal, QC, 2012.
42. M. Carrier-Vallieres, C.R. Freeman, S.R. Skamene, I. El Naqa, *PET/MR imaging for prediction of tumor outcomes by wavelet image fusion and texture analysis*, La Biodola, Isola d'Elba, May 26-30, 2012. Oral Presentation, Journal of Nuclear Instruments and Methods in Physics Research Section A.
43. P. Watson†, E. Mainegra-Hing, E.T. Soisson, I. El Naqa, J. Seuntjens, *Implementation of a fast Monte Carlo calculation of scatter corrections for real CBCT images*, Oral presentation, CAP Congress 2012, June 10-16, 2012.
44. M.A. Thomas, I. El Naqa, E.A. Kidd, F. Dehdashti, J.K. Schwarz, P.W. Grigsby, *Intratumoral heterogeneity assessed by extraction of texture features from PET images of cervical cancer patients*, *Int. J. Radiat. Oncol. Biol. Phys.* **84**(3S), S20 (2012). Abstract 46.
45. S. Lee†, J. Bradley, N. Ybarra, K. Jeyaseelan, J. Seuntjens, I. El Naqa, *A Bayesian network approach for modeling of radiation pneumonitis*, *Int. J. Radiat. Oncol. Biol. Phys.* **84**(3S), S79 (2012). Abstract 194.
46. M. Carrier-Vallières†, C.R. Freeman, S. Skamene, I. El Naqa, *FDG-PET features and outcomes in patients with soft-tissue sarcomas of the extremities*, *Int. J. Radiat. Oncol. Biol. Phys.* **84**(3S), S167-S168 (2012). Abstract 1003.
47. M. Serban, M. Carrier-Vallieres†, L. Hathout, C.R. Freeman, J. Seuntjens, I. El Naqa, *Dose escalation based on MR-PET/CT for soft tissue sarcoma*, *Int. J. Radiat. Oncol. Biol. Phys.* **84**(3S), S660-S661 (2012). Abstract 3176.
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49. A. Toltz†, N. Shin†, C. Laude, D. Roberge, C.R. Freeman, J. Seuntjens, W. Parker, *Prediction of excess risks of radiation-induced cardiac mortality and secondary cancers after radiation therapy for Hodgkin lymphoma*, *Int. J. Radiat. Oncol. Biol. Phys.* **84**(3S), S751-S752 (2012). Abstract 3420.
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51. D. Markel†, M. Carrier-Vallières†, C.R. Freeman, I. El Naqa, *A novel semi-automated multi-modality segmentation tool for radiotherapy treatment planning in sarcoma patients*, *Int. J. Radiat. Oncol. Biol. Phys.* **84**(3S), S854 (2012). Abstract 3687.
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55. W.Y. Song, M.J. Webster, D. Han, J. Einck, D. Scanderbeg, T. Vuong, S. Devic, *Dynamic modulated brachytherapy (DMBT): Concept, design, and simulations*, *Radioth. Oncol.* **103**(2), S44-S45 (2012).
56. A.F. Sadikot, S. Béault, F. Al Subaie, G.B. Pike, *Creation of a novel interactive tool of computer-assisted multi-modal trajectory planning*, 80<sup>th</sup> Annual Scientific Meeting of the American Association of Neurological Surgeons, Miami, Florida, April 14-18, 2012.
57. L. Bailey, Y. Xiao, M.M. Chakravarty, A.F. Sadikot, D.L. Collins, *Assessment of atlas warping of small basal ganglia on Colin 27*, 20<sup>th</sup> International Society for Magnetic Resonance in Medicine (ISMRM) Conference, Melbourne, Australia, May 05-11, 2012, p. 2210.
58. M. Derakhshan, S. Narayanan, D.L. Collins, D.L. Arnold, *Combining SIENA and SIENAx for improved quantification of grey and white matter atrophy*, 20<sup>th</sup> International Society for Magnetic Resonance in Medicine (ISMRM) Conference, Melbourne, Australia, May 05-11, 2012.

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