

Carleton University med phys grad student publications and presentations 2016

Carleton MSc or PhD medical physics student authors are in **bold**.

Journal Publications (alphabetic by first author)

Marc Chamberland, Malcolm R. McEwen, Tong Xu,

Technical aspects of real time positron emission tracking for gated radiotherapy,
Med. Phys. 43(2), 783-795 (2016).

doi: [10.1118/1.4939664](https://doi.org/10.1118/1.4939664)

David B. Flint, **Dal A. Granville**, Narayan Sahoo, Malcolm McEwen, Gabriel O. Sawakuchi,

Ionization density dependence of the curve shape and ratio of blue to UV emissions of Al₂O₃:C optically stimulated luminescence detectors exposed to 6-MV photon and therapeutic proton beams,
Radiation Measurements 89, 35-43 (2016).

doi: [10.1016/j.radmeas.2016.02.002](https://doi.org/10.1016/j.radmeas.2016.02.002)

Dal A. Granville, Narayan Sahoo, Gabriel O. Sawakuchi,

Simultaneous measurements of absorbed dose and linear energy transfer in therapeutic proton beams,
Phys. Med. Biol. 61(4), 1765-1779 (2016).

doi: [10.1088/0031-9155/61/4/1765](https://doi.org/10.1088/0031-9155/61/4/1765) (but link not recognized)

Maryam Hachem, Mario Tiberi, Basma Ismail, **Chad R. Hunter**, Natasha Arksey, Tayebah Hadizad, Rob S. Beanlands, Robert A. deKemp, Jean N. DaSilva,

Characterization of ¹⁸F-FPyKYNE-Losartan for imaging AT₁ receptors,
J. Nucl. Med. 57(10), 1612-1617 (2016).

doi: [10.2967/jnumed.115.170951](https://doi.org/10.2967/jnumed.115.170951)

Chad R. R. N. Hunter, Ran Klein, Rob S. Beanlands, Robert A. deKemp,

Patient motion effects on the quantification of regional myocardial blood flow with dynamic PET imaging,

Med. Phys. 43(4), 1829-1840 (2016).

doi: [10.1118/1.4943565](https://doi.org/10.1118/1.4943565)

Victor N. Malkov and David W. O. Rogers,

Charged particle transport in magnetic fields in EGSnrc,

Med. Phys. 43(7), 4447-4458 (2016).

doi: [10.1118/1.4954318](https://doi.org/10.1118/1.4954318)

Nelson Miksys, Joanna E. Cygler, J. M. Caudrelier, Rowan M. Thomson,

Patient-specific Monte Carlo dose calculations for Pd-103 breast brachytherapy,
Phys. Med. Biol. 61(7), 2705-2729 (2016).

doi: [10.1088/0031-9155/61/7/2705](https://doi.org/10.1088/0031-9155/61/7/2705)

Hamid Moradi, A. Ahmad, D. Shepherdson, N. H. Vuong, G. Niedbala, L. Eapen, B. Vanderhyden, B. Nyiri, S. Murugkar,

Raman micro-spectroscopy applied to treatment resistant and sensitive human ovarian cancer cells,
J. Biophotonics 1-8 (2016)

doi: [10.1002/jbio.201600211](https://doi.org/10.1002/jbio.201600211)

Amir Pourmoghaddas and R. Glenn Wells,
Quantitatively accurate activity measurements with a dedicated cardiac SPECT camera: Physical phantom experiments,
Med. Phys. 43(1), 44-51 (2016).
doi: [10.1118/1.4937601](https://doi.org/10.1118/1.4937601)

Amir Pourmoghaddas and R. Glenn Wells,
Analytically based photon scatter modeling for a multipinhole cardiac SPECT camera,
Med. Phys. 43(11), 6098-6108 (2016).
doi: [10.1118/1.4965806](https://doi.org/10.1118/1.4965806)

Paul Prior, Rachel Timmins, Julia Petryk, Jared Strydorst, Yin Duan, Lihui Wei, R. Glenn Wells,
A modified TEW approach to scatter correction for In-111 and Tc-99m dual-isotope small-animal SPECT,
Med. Phys. 43(10), 5503-5513 (2016).
doi: [10.1118/1.4962469](https://doi.org/10.1118/1.4962469)

Gabriel O. Sawakuchi, Felisberto A. Ferreira, Conor H. McFadden, Timothy M. Hallacy, **Dal A. Granville**,
Narayan Sahoo, Mark S. Akselrod,
Nanoscale measurements of proton tracks using fluorescent nuclear track detectors,
Med. Phys. 43(5) 2485-2490 (2016).
doi: [10.1118/1.4947128](https://doi.org/10.1118/1.4947128)

Hong Shen, W. S. Culberson, C. K. Ross,
An investigation of polarity effects for wide-angle free-air chambers,
Med. Phys. 43(7), 4106-4112 (2016), (Technical Note).
doi: [10.1118/1.4951727](https://doi.org/10.1118/1.4951727)

Conference Presentations

AAPM presentations: 58th annual meeting of the American Association of Physicists in Medicine, 2016
July 31 – Aug 4, Washington DC USA.

Alexandra Bourgouin and Malcolm McEwen,
Ion chamber dose measurements - Problems with the Temperature-Pressure correction factor
Presentation TH-AB-201-08.
Med. Phys. 43(6), 3851 (2016).
doi: [10.1118/1.4958037](https://doi.org/10.1118/1.4958037)

Sara Gholampourkashi, Joanne E. Cygler, Jason Bélec, Miro Vujicic, Emily Heath,
4D Monte Carlo simulations for verification of dose delivered to a moving anatomy,
Presentation MO-FG-BRA-01.
Med. Phys. 43(6), 3709 (2016).
doi: [10.1118/1.4957295](https://doi.org/10.1118/1.4957295)

Nicholas Majtenyi, H. Gabrani-Juma, Ran Klein, Robert A. deKemp, Greg Cron, T. B. Nguyen, Ian Cameron,
Comparing arterial input function measurements in DCE-MRI using MOLLI and phase,
Poster SU-G-IeP1-03.
Med. Phys. 43(6), 3644 (2016).
doi: [10.1118/1.4956963](https://doi.org/10.1118/1.4956963)

Victor Malkov, David W. O. Rogers, David Jaffray,
Lung cannot be treated as homogeneous in radiation transport simulations in magnetic fields,
Presentation TH-AB-BRA-05.
Med. Phys. 43(6), 3854 (2016).
doi: [10.1118/1.4958056](https://doi.org/10.1118/1.4958056)

ESTRO presentation: European Society of Radiotherapy and Oncology, 35th annual meeting, Turin, Italy,
2016 April 29 - May 3.

J.E. Cygler, **S. Gholampourkashi**, J. Bélec, M. Vujicic, E. Heath,
Experimental verification of 4D Monte Carlo calculations of dose delivered to a moving anatomy,
PV-0174,
Radiotherapy and Oncology, 119, S82-S83 (2016).
doi: [10.1016/S0167-8140\(16\)31423-2](https://doi.org/10.1016/S0167-8140(16)31423-2)

COMP presentations: 62nd Annual Scientific Meeting of the Canadian Organization of Medical
Physicists, St. John's Newfoundland, 2016 July 20-23.

Ming Liu, Joanna Cygler, Eric Vandervoort,
Assessment of Synchrony respiratory compensation error for CyberKnife liver treatment,
Poster # 49.
Med. Phys. 43(8), 4948-4948 (2016).
doi: [10.1002/j.2473-4209.2016.tb00360.x](https://doi.org/10.1002/j.2473-4209.2016.tb00360.x)

Nicholas Majtenyi, Hanif Juma, Ran Klein, Robert A. deKemp, Greg O. Cron, Thanh B. Nguyen, Ian G.
Cameron,
Comparison of input function measurements from DCE and MOLLI,
Presentation Sci-Fri AM: MRI and Diagnostic Imaging – 05.
Med. Phys. 43(8), 4952-4952 (2016).
doi: [10.1002/j.2473-4209.2016.tb00360.x](https://doi.org/10.1002/j.2473-4209.2016.tb00360.x)

Victor N. Malkov and David W. O. Rogers,
Not all geometries are equivalent for magnetic field Fano cavity tests,
Presentation Sci-Sat AM – Radiation Dosimetry and Practical Therapy Solutions – 05.
Med. Phys. 43(8), 4959-4959 (2016).
doi: [10.1002/j.2473-4209.2016.tb00360.x](https://doi.org/10.1002/j.2473-4209.2016.tb00360.x)

Hamid Moradi, Sangeeta Murugkar, Abrar Ahmad, Dean Shepherdson, Balazs Nyiri, Nhung Vuong, Gosia
Niedbala, Barbara Vanderhyden, Libni Eapen,
Batch effect reduction in in-vitro Raman microscopic radiosensitivity study using ovarian cancer cells,
Poster # 14.
Med. Phys. 43(8) 4938-4939 (2016).
doi: [10.1002/j.2473-4209.2016.tb00360.x](https://doi.org/10.1002/j.2473-4209.2016.tb00360.x)

Patricia Oliver and Rowan M. Thomson,
A Monte Carlo study of macro- and microscopic dose descriptors and the microdosimetric spread using
detailed cellular models,
Presentation Sci-Thur AM: YIS-06.
Med. Phys. 43(8), 4929-4929 (2016).
doi: [10.1002/j.2473-4209.2016.tb00360.x](https://doi.org/10.1002/j.2473-4209.2016.tb00360.x)

CAP presentations: Annual congress of the Canadian Association of Physicists, 2016 June 13–17, Ottawa, Canada.

Christopher Dydula, George Belev, Paul Johns,
Development of synchrotron-based x-ray scatter projection imaging,
Poster # 64.

Hamid Moradi, Sangeeta Murugkar, Dean Shepherdson, Abrar Ahmad, Nhung Vuong, Libni Eapen, Gosia Niedbala, Balazs Nyiri, Barbara Vanderhyden,
Characterization of radioresistance in human ovarian cancer cells,
Presentation Wed June 15, 9:15.

World Congress of Brachytherapy presentations: World Congress of Brachytherapy, 2016 June 27-29, San Francisco, CA USA.

A. R. M. Haidari, **N. Miksys**, J.E. Cygler, E. Choan, G. Perry, O. Holmes, R. M. Thomson,
Effect of tissue heterogeneity and interseed effects on urethral dose for permanent prostate brachytherapy,
Poster presentation
Brachytherapy 15, S186-S187 (2016).

N. Miksys, L. Beaulieu, R. M. Thomson,
Monte Carlo dose calculations for permanent prostate brachytherapy: Calcification modelling schemes and sensitivity to tissue compositions,
Oral presentation,
Brachytherapy 15, S33-S34 (2016).

Other conference presentations:

A. Ahmad, **H. Moradi**, D. Shepherdson, N. H. Vuong, G. Niedbala, L. Eapen, B. Nyiri, B. Vanderhyden, S. Murugkar,
Characterization of treatment resistance in human ovarian cancer cells.
Poster presentation,
SPEC 2016, International Society of Clinical Spectroscopy - Biannual Conference, Montreal, Canada, 2016 June 26-30.

S. Gholampourkashi, M. Vujicic, J. Bélec, J.E. Cygler, E. Heath,
4D Monte Carlo simulation for verification of dose delivered to a moving anatomy,
14th Annual Meeting of the Imaging network of Ontario, Toronto, Canada, 2016 March 30-31.

E. Heath, **S. Gholampourkashi**, J. Bélec, M. Vujicic, J. E. Cygler,
Validation of 4D Monte Carlo simulations of dose delivered to a moving anatomy.
International Conference on the use of Computers in Radiation Therapy, London UK, 2016 June 27-30.