Greg Salomons Curriculum Vitae

A. Personal Information

B. Education & Awards

Degree / Title	Institution and Location	Field	Supervisor (External Examiner)	Year
MCCPM	Canadian College of Physics in Medicine	Radiation Therapy		June 2005
Review A	Kingston Regional Cancer centre	Radiation Therapy Physics		May 2002
Medical Physics Residency Training	Kingston Regional Cancer centre	Radiation Therapy Physics	Dr. Andrew Kerr	August 1999 May 2002
Post Doctorate Fellowship	Kingston Regional Cancer Centre	Medical Physics	John Schreiner	April 1998 August 1999
Post Doctorate Fellowship	Queen's University Kingston, ON	Physics	M.A. Singh	Feb 1998 Mar 1998
Ph.D.	Queen's University Kingston, ON	Physics	M.A. Singh (D.I. Svergun)	Sept 1993 Feb 1998
M.Sc.	Queen's University Kingston, ON	Physics	J.P. Harrison	1991
B.Sc.				

Tommy Wei	Undergraduate Thesis Project		2014-2015
Rod Parsa	Undergraduate Thesis Project		2014-2015
Matti Keskikyla	Undergraduate Thesis Project		2013-2014
Robert Kallin	Undergraduate Thesis Project		2013-2014
Mary Aube	Undergraduate Thesis Project		2013-2014
Chris Jechel	Physics Graduate Student		2011-2014
Kevin Alexander	Physics Graduate Student		2011-2013
Amanda McCoubrey	Undergraduate Thesis Project		2012-2013
Edward Percy	Undergraduate Thesis Project		2011-2012
Joel Mullins	Summer Student	Cancer Centre of Southeastern Ontario	2011
Chris Jechel	Harold Johns Summer Student	Cancer Centre of Southeastern Ontario	2011
Junaid Youssef	Radiation Oncology Resident	Cancer Centre of Southeastern Ontario	2010, 2011
Darwin Yip	Radiation Oncology Resident	Cancer Centre of Southeastern Ontario	2009 - 2012
Robyn Quirt	Summer Student	Kingston Regional Cancer Centre Kingston, ON	

Anil Thomas	Co-op Student	Kingston Regional Cancer Centre Kingston, ON	2000

F. Committee Memberships

Committee Name	Date Joined	Duties
CCO IMRT QA Advisory Committee	Nov 2010 to Dec 2020	Part of a panel of regional advisors to CCO IMRT QA program
Cancer Care Ontario Medical Physics Communities of Practice	Nov 2013 to Aug 2021	Co-Chair of Planning Review project group
Cancer Care Ontario Medical Physics Communities of Practice	June 2018 to April 2020	Chart Checking Quality Metrics Working Group
Radiation Therapy IT Support Team	Jan 2021	Team Lead

G. Grants and Other Funding Obtained

Title	Investigator(s)	Funding Agency	Amount	Year
Advancing gel dosimetry for clinical radiation therapy	L.J. Schreiner, L.J Darko, J Kerr, A. T McAuley, K Salomons, G.J.	Canadian Institutes for Health Research	$91,768	2012 - 2016
Advancing gel dosimetry for clinical radiation therapy	L.J. Schreiner, L.J McAuley, K Salomons, G.J. Darko, J	Canadian Institutes for Health Research (bridge funding)	$60,388	2011
Improved polymer gel dosimetry for clinical radiation therapy.	L.J. Schreiner, L.J McAuley, K Salomons, G.J. Darko, J	Canadian Institutes for Health Research	$214,500	2007-2010
Adaptive radiation therapy by cobalt-60 tomotherapy: Dose delivery studies	Schreiner, L. J Kerr, A. T Salomons, G. J. Mackillop, W. J. Brundage, M. D.	Canadian Institutes for Health		

Gregory J. Salomons

2021	Initiated discussions to formalize the role of Medical Physics in hospital Information Management (IM) activities and decision making.
2021	Continued to actively assist IM in diagnosing and resolving issues encountered in the Radiation Therapy department and in advising on hardware purchases.
2021	Resumed work on plan evaluation tools project. Additional tools developed this year include a program used to assess, contour volumes and another used to check electron insert shapes.
2020	Project lead for a major TPS software upgrade
2020	Coordinated commissioning work required for the TPS upgrade
2020	Coordinated PC replacements and upgrade to meet upgraded TPS specs.
2020	Assisted KGH IT in diagnosing and resolving computer related issues encountered in the Radiation Therapy department.
2019	Continued work on plan evaluation tools project. The project goal is to track and automate some of the physics plan checking tasks.
2019	Development QA policies
2019	TPS and ARIA Troubleshooting and maintenance
2019	Commissioning and testing of TrueBeam electron fields in Eclipse and ARIA
2019	Commissioning new version of IMSure secondary MU calculations software.
2019	Commissioning 10X photons.
2019	Initial planning for TPS software upgrade.
2019	-
2019	Update patient data anonymization process for clinical trials
2019	Evaluate new software packages, including new HIS.
2019	Initial work on plan evaluation tools. (ongoing)
2019	Implement version control system for key clinical data such as policies and procedures.
2019	Draft new policy for Virt. SIM planning.
2019	Develop tables of PC hardware and software requirements for Radiation Oncology Division.
2018	Development QA policies
2018	New diagnostic imaging import process for dosimetry
2018	New patient data anonymization process for clinical trials
2018	New software to assist dosimetrists in generating SABR Plan Reports
2018	Maintenance of MU calculation software
2018	Commissioning and testing of Eclipse and ARIA for two new Truebeam linacs and software upgrade for a third linac.
2018	Initial Commissioning and testing of TrueBeam electron fields in Eclipse and ARIA (on-going)
2018	

2003 Participated in committee to select a new dosimetrist. This included ge and skill.

J. Teaching Accomplishments

2021 Introduced new topic for Radiation Oncology Residents on treatment planning for sarcomas

2021 Converted teaching module on Professional Practice for Medical Physics Residents into an on-line format to deal with COVID-19 restrictions.

2013

Book chapters and conference proceedings, published or in press

H. Keller A. Rink,, G. Salomons, G. Salomons et al.**, Best-Practice Guidelines for Radiation Treatment Plan Physics Review: A report on the results of a survey conducted by the Medical Physics Community of Practice (CoP) Chart Checking Practices Working Group.**

2. Sedghi A, Salomons G, Jutras J-D, et al. **Image registration with deep probabilistic classifiers: application in radiation therapy,** Med. Imaging 2020 Image-Guided Proced. Robot. Interv. Model., 61 66 (SPIE, Houston, Texas, 2020)

3. C Jechel, T Bulenga, C Joshi, G Salomons and LJ Schreiner. **Characterization of a Cobalt-60 radiotherapy unit upgrade: BEST Theratronics T780C to Equinox100**. ICARO2, Book of Synopsis,72-73, (IAEA, Vienna, 2017)

G. Salomons, et al.**, Current practices of medical physics external beam plan checking: A report on the results of a survey conducted by the Medical Physics Community of Practice (CoP) Chart Checking Practices Working Group.**

5. G. Salomons, **A knowledge-based approach to guidelines**, SCOPE Sept 2015, 24-29 (2015).

6. G. Salomons, **Treatment Planning System Commissioning and QA: Challenges and Opportunities**, Proceedngaeeedngae 7 g 4 1 0 1 a 0 4 E q 2 c 2.51 5619p92D 0 1 397.15 683.38 Tm [-]] 0 Tm

12. L. J. Schreiner, A. Kerr, G. Salomons, J. Darko, C. Joshi, M. Rogers, N. Chng, C. Peters. **Cobalt-60 based IMRT with image guidance: Is it possible?**, Proceedings of the International Conference on Quality Assurance and New Techniques in Radiation Medicine (QANTRM), (Vienna, Austria, 2006)

13. M. Rogers, N. Chng, G. Salomons, A. Kerr, L.J. Schreiner, **Preliminary Analysis of a Cobalt-60 Beam Under a MIMiC**, Proceedings of the 52nd Annual Scientific Meeting, 151-154, (COMP, Ottawa, ON, 2006).

14. C. Peters, M. Rogers, D. Eyles, A. Kerr, G. Salomons and L.J. Schreiner, **3rd Generation Co-60 based megavoltage Computed Tomography.** Proceedings of the 52nd Annual Scientific Meeting, 86-88, (COMP, Ottawa, ON, 2006).

15. L. J. Schreiner, M. V. Rogers, G. J. Salomons and A. T. Kerr. **Metal Artifact Suppression in Megavoltage Computed Tomography**. In *Proc. Of SPIE: Physics of Medical Imaging* , M.J. Flynn (ed), **5745,** 637 645, (International Society for Optical Engineering, Bellingham, WA, 2005).

16. *M. Rogers*, A. Kerr, G. *Salomons* and L.J. Schreiner. **Quantitative Investigations of Megavoltage Computed Tomography**. In *Proc. Of SPIE: Physics of Medical Imaging* , M.J. Flynn (ed), **5745,** 685 694, (International Society for Optical Engineering, Bellingham, WA, 2005)

17. A. Kerr, G. Salomons, N. Chng, M. Rogers, C. Joshi, J. Darko, L.J. Schreiner **Advances in image-guided radiation therapy with Cobalt-60 Tomotherapy**, Proc. 14th International Conference of Medical Physics of the International Organization for Medical Physics (IOMP), *Biomedizinische Technik Biomedical Engineering, Medical Physics,* Vol **50**, Supp vol 1, pp. 252-1253, (Nuremburg, Germany Sept. 2005).

18. L. John Schreiner, Andrew Kerr, Greg Salomons, Christine Dyck and George Hajdok. **The Potential for Image Guided Radiation Therapy with Cobalt-60 Tomotherapy.** In *Lecture Notes in Computer Science*: Proc.6th Annual International Conference on Medical Image Computing and Computer Assisted Intervention (MICCAI)

2. G.J. Salomons **The Role of the Physics Plan Check** Continuing Medical Education, Division of Radiation Oncology, Kingston Regional Cancer Centre, Kingston, ON, May 25, 2018

3. G.J. Salomons **Structure Templates** Continuing Medical Education, Division of Radiation Oncology, Kingston Regional Cancer Centre, Kingston, ON, June 16, 2017

4. G.J. Salomons **Contouring and Planning** Continuing Medical Education, Division of Radiation Oncology, Kingston Regional Cancer Centre, Kingston, ON, Jan 20,

27. G.J. Salomons and L.J. Schreiner **Prevention of Radiation Accidents.** Oncology 31, 2002.
28. G.J. Salomons **Conformal Radiation Therapy with Cobalt 60 Tomotherapy.**

9. K. Alexander, T. Olding, G. Salomons, and L.J. Schreiner, **Characterization of a camera and LED lightbox imaging system for radiochromic film dosimetry**, 11th Imaging Network Ontario Symposium (ImNO), (2013).

10. D. Yip; G. Salomons; G. Bracken; M. Brundage **Electron Therapy for Nonmelanoma Skin Cancers: Computer Simulated Bolus Versus Actual Physical Bolus for Treatment Planning**, *International Journal of Radiation Oncology* Biology* Physics* 84.3 (2012): S660.

11. G.J. Salomons, J. Darko. **The effect of Smoothing on the Uncertainty in the Dose Distributions for a Commercial Electron Monte Carlo Algorithm**,

20. M. Brundage, M. Rogers, A. Kerr, G. Salomons, W. Mackillop and L.J. Schreiner, **Is There an Increased Role for Megavoltage CT Imaging in Radiation Therapy (and Beyond)?** **76**, S32, (2005).

21. Greg Salomons, Myron Rogers, Andrew Kerr and L. John Schreiner, **Metal Artefact Suppression in Megavoltage Computed Tomography**, *Technical Program/Summary Digest*, pp 84, 2005. San Diego, USA.

22. Myron Rogers, Andrew Kerr, Greg Salomons and L. John Schreiner, **Quantitative Investigations of megavoltage Computed Tomography**. *Technical Program/Summary Digest*, pp 85, 2005. San Diego, USA

23. Myron Rogers, Andrew Kerr, Greg Salomons and L. John Schreiner, **Quantitative Investigations of Megavoltage Computed Tomography.** Imaging Network Ontario 4th Annual Imaging Symposium. pp 135, 2005. Toronto, ON.

24. Greg Salomons, Myron Rogers, Andrew Kerr and Dr. L. John Schreiner. **Metal Artefact Suppression in Megavoltage Computed Tomography**. Imaging Network Ontario 4th Annual Imaging Symposium, pp. 139, 2005. Toronto, ON.

25. Greg Salomons, Myron Rogers, Andrew Kerr and L. John Schreiner **Metal Artefact Suppression in Megavoltage Computed Tomography.** Proceedings of the Imaging Network Ontario 4th Annual Symposium, 33, 2004.

26. Myron Rogers, Andrew Kerr, Greg Salomons and L. John Schreiner **Quantitative Investigations of Megavoltage Computed Tomography.** Proceedings of the Imaging Network Ontario 4th Annual Symposium, 27, 2004.

27. Andrew Kerr, Myron Rogers, Greg Salomons, and L. John Schreiner. **Metal Artifact Suppression in High Energy Photon CT Imaging.** *Med. Phys.*, Vol. **31**, p. 1719, July. 2004.

28. Greg Salomons, Andrew Kerr, George, Hajdok, Myron Rogers, Christine Dyck and L. John Schreiner. **Further Progress in Cobalt-Tomotherapy at KRCC.** *Med. Phys.*, Vol. **30**, No. 7, p. 1940, July. 2003.

29. G. J. Salomons, A. T. Kerr, Chandra P. Joshi and L. J. Schreiner. **Investigations of Radiation Delivery using Cobalt 60 Tomotherapy.** Proceedings of the Imaging Network Ontario 2nd Annual Symposium, 37,91, 2002.

30. G. Hajdok, G. J. Salomons, A. T. Kerr and L. J. Schreiner. **Megavoltage Computed Tomography Using a Cobalt–60 Gamma Ray Source for Radiotherapy Treatment Verification.** Proceedings of the Imaging Network Ontario 2nd Annual Symposium, 38,92, 2002.

31. L.J. Schreiner, A.Kerr, A. Hsu, G. Salomons and G. Gallant. **Cobalt Tomotherapy:**

32.

15. Greg Salomons, Myron Rogers, Andrew kerr and L. John Schreiner, **Metal Artifact Suppression in Megavoltage Computed Tomography**, Imaging Network Ontario, 4th Annual Imaging Symposium, March 1-3, 2005, Toronto, Canada.

16. Myron Rogers, Andrew Kerr, Greg Salomons and L. John Schreiner **Quantitative Investigations o**f Megavoltage Computed Tomography. Proceedings of the Imaging Network Ontario 4th Annual Symposium, March 1 2005.

17. G. Salomons, A. Kerr, G. Hajdok, M. Rogers, C. Dyck and L.J. Schreiner, **Further Progress in Cobalt-Tomotherapy at KRCC**. In Proceedings of the 49th COMP Annual Meeting & CCPM Symposium on The Move to Image-Guided and Adaptive Radiation Therapy, June 5-7 2003, Edmonton, Alberta.

18. G. J. Salomons, A. T. Kerr, Chandra P. Joshi and L. J. Schreiner. **Investigations of Radiation Delivery Using Cobalt 60 Tomotherapy.** Imaging Network Ontario 2nd Annual Symposium, Toronto, Ontario, Sept. 24 2002.

19. G. Hajdok, G. J. Salomons, A. T. Kerr and L. J. Schreiner. **Megavoltage Computed Tomography Using a Cobalt–60 Gamma Ray Source for Radiotherapy Treatment Verification.** Imaging Network Ontario 2nd Annual Symposium, Toronto, Ontario, Sept. 24 2002.

20. Q. Jane Zhang, Kim B. McAuley, Greg Salomons and L. John Schreiner. **Dynamic Mathematical Modeling of a Polyacrylamide Gel Dosimeter.** 2nd International Workshop on Radiation Therapy Gel Dosimetry, Brisbane, Australia, Nov 18-21, 2001.

21. Chandra P. Joshi, Andrew Kerr, L. John Schreiner and Greg Salomons. **An estimation of treatment times, source activity and other parameters for a ^{60}Co Tomotherapy Unit.** Proceedings of the International Conference on Medical Physics and Radiation Safety and 22nd AMPI Annual Conference on Medical Physics, Mumbai, India. Nov 26-29, 2001.

22. Yong S. Park, Greg J. Salomons, Jane Zhang, Kim B. McAuley and L. John Schreiner. **Polymer Gel Dosimetry: A Unique Tool for Three-Dimensional Dosimetry.** Cancer Care Ontario 18th Biennial Research Conference, Orillia, ON, Nov 12-14 2001

23. Andrew Kerr, Greg J. Salomons, and L. John Schreiner. **Dose delivery accuracy of a scanned pencil beam for cobalt-60 tomotherapy studies.** Annual Conference of COMP, Kelowna, BC, July 11-14, 2001

24. G.J. Salomons, B. Kim, G Gallant, A Kerr, L.J. Schreiner. **CT Imaging with a Prototype Cobalt-60 Tomotherapy Unit.** Canadian Organisation of Medical Physicists, 45th Annual Scientific Meeting (Sherbrooke, PQ, June 1999)

25. J.P. Harrison, M Kohl, and G.J. Salomons. **The Effects of Silver Doping on the Flux Dynamics in YBCO** Canadian Association of Physicists Annual Conference (University of Manitoba, June 1991)

26. J.P. Franck, J. Jung, G.J. Salomons, W.A. Miner, M.A. Mohamed, J. Chrzanowski, S. Gygax, J.C. Irwin, D.F. Mitchell, and G.I. Sproule**. Isotope Effect in Superconducting Y_1Ba**

8. C. Jechel, G. Salomons, L.J. Schreiner, **Electron Density Measurements of Metallic Implants with Cobalt-60 Computed Tomography**, World Congress on Medical Physics and Biomedical Engineering Toronto, ON (2015).

9. K. Alexander, T. Olding, G. Salomons, and L.J. Schreiner **Characterization of a camera and LED lightbox imaging system for radiochromic film dosimetry**, 11th Imaging network Ontario Symposium (ImNO), February 2013

10. Drever, L. and G. Salomons. **Detecting changes in IMRT QA using statistical process control**, Canadian Organization of Medical Physicists 58th Annual Scientific Meeting Halifax NS, July 11-14 2012

11. K Alexander, E Percy, T Olding, LJ Schreiner and G Salomons **Characterization of a camera and LED lightbox imaging system for r**

19. J Darko, C Joshi, E Osei, T Halsall, J Dai, G Salomons, and A Kerr, **Dosimetry of Small Lung Lesions with EGSnrc Monte Carlo and Treatment Planning Systems**, AAPM Conference, Orlando, Florida, July 2006.

20. J. Darko, L.J. Schreiner, C. Joshi, M. Rogers, N. Change, C. Peters, G. Salomons, A. Kerr, **Advances in Co-60 Based Tomotherapy Including Megavoltage CT**, 2006 AAPM Annual Meeting, Orlando, Florida, July 30, 2006.

21. C. Peters, M. Rogers, D. Eyles, A Kerr, G. Salomons, L.J. Schreiner, **3rd Generation Co-60 based Megavoltage Computed Tomography**, COMP, Saskatoon, Saskatchewan, 2006.

22. M. Rogers, N. Chng, G. Salomons, A. Kerr, L.J. Schreiner, **Preliminary Analysis of a Cobalt-60 Beam U[21.)]5do5.218 Tm[60l6(r)-6(riM5(lsC EMC /P /MCID 30>BDC BT1/F3 12**

41. G.J. Salomons, G.A. Gallant, A.T. Kerr, L.J. Schreiner. **CT Imaging For Cobalt-60 Helical Tomotherapy.** World Congress on Medical Physics and Biomedical Engineering (Chicago July 2000)

42. A.T. Kerr , G.J. Salomons, L.J. Schreiner. **Dosimetric Modelling of a Scanned Pencil Beam Apparatus for Evaluation of Cobalt-60 Tomotherapy.** World Congress on Medical Physics and Biomedical Engineering (Chicago July 2000)

43. L.J. Schreiner, A. Kerr, G. Salomons, and G. Gallant. **Cobalt-60 as a radiation source for tomotherapy radiation treatment.** The Royal College of Physicians and Surgeons Annual Meeting (with CARO), Montreal, QC, Sept. 1999.

44. G.J. Salomons, L.J. Schreiner. **Temperature Changes in Irradiated PAG Gel Dosimeters.** on KY July 1999)

45. G.J. Salomons, L.J. Schreiner. **Temperature Changes in Irradiated PAG Gel Dosimeters.** Canadian Organisation of Medical Physicists, 45th Annual Scientific Meeting (Sherbrooke, PQ, June 1999)

46. L.J. Schreiner, G.A. Gallant, G.J. Salomons, C.J. Cartile, A.T. Kerr. **Viability of a Cobalt-60 Tomotherapy Unit.** The American Association of Physicists in Medicine, 40thAnnual Meeting (San Antonio, Texas, August 1998)

47. G. Gallant, G.J. Salomons, A. Kerr, E. Heath and L.J. Schreiner. **A Feasibility Study of a Tomotherapy Unit Based On Cobalt-60 Radiation Sources.** Canadian Organisation of Medical Physicists, 44th Annual Scientific Meeting, (London, ON, June 1998)

48. G.J. Salomons, and M.A. **Singh Apparatus for SAXS Measurements of Polymer Deformation.** Ontario Centre for Materials Research, Annual Networking Meeting, Sept 1995

49. G.J. Salomons, M.A. Singh, L.G. Hiltz, L.H. Pan, and W.R. Newson**. Real Time SAXS Measurements of Craze Formation in Solvent-Toughened Polystyrene.** Synchrotron Radiation in Materials Science, Chester, UK, July 1994