

C. R. Schmidtlein

Curriculum vitae and Bibliography

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A. GENERAL INFORMATION

1. Name: Charles Ross Schmidtlein
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7. Citizenship: United States of America

B. EDUCATIONAL BACKGROUND

1. Bachelor of Science of Aerospace Engineering, University of Maryland at College Park, MD, 1984-1989, Spring 1989.
2. Master of Science of Nuclear Engineering, University of Utah in Salt Lake City, UT, 1991-1994, Spring 1994.
3. Doctor of Philosophy of Nuclear Engineering, University of Utah in Salt Lake City, UT, 1994-2000, Winter 2000.

C. PROFESSIONAL POSITIONS AND EMPLOYMENT

1. Post-doctoral

Research Fellow, Department of Medical Physics, Memorial Sloan-Kettering, New York, NY, 7/2003 to 6/2006

2. Academic Positions

Assistant Professor, Department of Physics, United States Military Academy, West Point, NY, 7/2001 to 6/2003

Assistant Attending Physicist (Level 1), Department of Medical Physics, Memorial Sloan-Kettering, New York, NY, 6/2007 to Present

3. Other Employment

Radiotherapy Physicist II, Department of Medical Physics, Memorial Sloan-Kettering, New York, NY, 6/2006 to 06/2007

Computational Scientist, Sinc LLC, Salt Lake City, UT, 12/2000 to 6/2000

Assistant Reactor Supervisor / Senior Reactor Operator, Department of Civil and Environmental Engineering, University of Utah, Salt Lake City, UT, 1995 to 12/2000

Training, Assessing & Counseling Officer, Army National Guard, Camp Smith, NY, 10/1991 to 8/2004

Research Assistant, Department of Civil and Environmental Engineering, University of Utah, Salt Lake City, UT, 9/1991 to 12/2000

Command Management Data Analyst, Hubble Space Telescope Project, Bendix Field Engineering, NASA Goddard, Green Belt, MD, 9/1989 to 8/1991

Laboratory Assistant, Aerospace Laboratories, Department of Aerospace Engineering, University of Maryland, College Park, MD, 1987 to 1989

D. LICENSURE, BOARD CERTIFICATION, MALPRACTICE

1. Licensure

New York State, Number P43139, 5/26/2005, Therapeutic Radiological Physics Limited Permit

2. Board Certification

Therapeutic Radiological Physics, American Board of Radiology, 2007.
Medical Nuclear Physics, American Board of Radiology, Part 2 (Part 3 scheduled).

E. PROFESSIONAL MEMBERSHIPS (Medical and Scientific Societies)

- 1. Member Society of Physics Students (2001-Present)
- 2. Member American Association of Physicists in Medicine (2003-Present)

F. HONORS AND AWARDS

- 1. Cost Savings Award, Bendix Field Engineering, Hubble Space Telescope Project, 1990
- 2. Scabbard and Blade Honor Society, 1993
- 3. Alpha Nu Sigma Nuclear Engineering Honor Society, 1997
- 4. Tau Beta Pi Engineering Honor Society, 1998
- 5. RAMP's Young Investigators Award, First Place, 2004
- 6. RAMP's Young Investigators Award, First Place, 2005

G. INSTITUTIONAL/HOSPITAL AFFILIATION

Primary Hospital Affiliation:
Memorial Hospital for Cancer and Allied Diseases

H. EMPLOYMENT STATUS

Current Employer: **Memorial Sloan-Kettering Cancer Center**
Employment Status: **Full-time salaried at Memorial Hospital**

I. CURRENT & PAST INSTITUTIONAL RESPONSIBILITIES & PERCENT EFFORT

1. Teaching/Mentoring:

- a. Medical Physics Theory, MSK residents and training fellows (10%)

2. Clinical care:

- a. Nuclear Medicine Clinical Support (15%)
- b. Nuclear Medicine Research Support (25%)
- c. Quality Assurance (10%)

3. Administration:

- a. Documentation and Record Keeping (20%)

4. Research:

- a. Clinical research projects MSK researchers (10%)
- b. Research collaboration in PET imaging physics (10%)

J. RESEARCH SUPPORT

None at present

K. EXTRAMURAL PROFESSIONAL RESPONSIBILITIES

1. Reviewer Medical Physics (2005-Present)
2. Reviewer Physics in Medicine and Biology (2007-Present)

L. BIBLIOGRAPHY

Articles in Professional Peer-Reviewed Journals:

1. Stenger F, and **Schmidtlein CR**, Conformal maps via Sinc Methods, Computational Methods and Function Theory (CMFT'97), pp. 505-549, 1999.
2. Jan S, Santin G, Strul D, Staelens S, Assie K, Autret D, Avner S, Barbier R, Bardies M, Bloomfield PM, Brasse D, Breton V, Bruyndonckx P, Buvat I, Chatziioannou A, Choi Y, Chung YH, Comtat C, Donnarieix D, Ferrer L, Glick SJ, Groiselle CJ, Guez D, Honore PF, Kerhoas-Cavata S, Kirov AS, Kohli V, Koole M, Krieguer M, van der Laan DJ, Lamare F, Largeron G, Lartizien C, Lazaro D, Maas MC, Maigne L, Mayet F, Melot F, Merheb C, Pennacchio E, Perez J, Pietrzyk U, Rannou FR, Rey M, Schaart DR, **Schmidtlein CR**, Simon L, Song TY, Vieira JM, Visvikis D, Van de Walle R, Wieers E, Morel C, GATE – Geant4 Application for Tomographic Emission: a simulation toolkit for PET and SPECT, Phys Med Bio, 49, 4543-4561, 2004.
3. Devic S, Seuntjens J, Sham E, Podgorsak EB, Kirov AS, **Schmidtlein CR**, and Soares CG, Precise radiochromic film dosimetry using flat-bed document scanner, Med. Phys., 32(7), 2245-2253, July 2005.
4. **Schmidtlein CR**, Kirov AS, Bidaut LM, Nehmeh SA, Erdi YE, Ganin A, Stearns CW, McDaniel DL, Hamacher KA, Humm JL, and Amols HI, Validation of GATE Monte Carlo Simulations of the GE Advance/Discovery LS PET Scanners, Med. Phys., Vol. 33, No. 1, Jan., 2006.
5. Kirov AS, Danford C, **Schmidtlein CR**, Yorke E, Humm JL, and Amols HI, PET quantification inaccuracy of non-uniform tracer distributions for radiation therapy, NSSMIC 2007, Vol. 4, 2838-2841, 2007.
6. Kirov AS, Piao JZ, **Schmidtlein CR**, Partial volume effect correction in PET using regularized iterative deconvolution with variance control based on local topology, Phys. Med. Biol., 53, 2577-2591, 2008.
7. Munbodh R, Jackson A, Bauer J, **Schmidtlein CR**, and Zelefsky MJ, Dosimetric and anatomic indicators of late rectal toxicity after high-dose intensity modulated radiation therapy for prostate cancer, Med. Phys. Vol. 35(5), pp. 2137-2150, 2008.

Books, Book Chapters and Reviews:

1. Morel C., et al, GATE Users Guide, GATE – Geant4 Application for Tomographic Emission: a simulation toolkit for PET and SPECT, OpenGATE Collaboration, "http://www-lphe.epfl.ch/GATE/", August 2005.

2. Sinc Methods for the Solution of Engineering Problems as Applied to Conformal Mapping and Radionuclide Intake, Dissertation, University of Utah, December 2000.
3. Tsiboulia A, Matveenko I, Nikolaev M, Semenov M, Rozhikhin Y, Dean VF, Briggs JB, Montierth LM, Bennion JS, Sandquist GM, and **Schmidlein CR**. Criticality Experiments with Heterogeneous Compositions of Plutonium, Silicon Dioxide, and Polyethylene, PU-MET-MIXED-001, NEA/NSC DOC(95)03/I, September 2000.
4. Tsiboulia A, Matveenko I, Nikolaev M, Semenov M, Rozhikhin Y, Dean VF, Briggs JB, Montierth LM, Bennion JS, Sandquist GM, and **Schmidlein CR**. Criticality Experiments with Heterogeneous Compositions of Highly Enriched Uranium, Silicon Dioxide, and Polyethylene, HEU-MET-MIXED-005, NEA/NSC DOC(95)03/II, September 2000.
5. United States Nuclear Regulatory Commission. Final Decommissioning Report for AGN-201M Reactor, August 1994.
6. Safety Analysis Report, U. of Utah TRIGA reactor license renewal & 1.1 MW upgrade.