

Joseph P. Dugas: Curriculum Vitae

EDUCATION

Ph.D.	Aug. 2003	Physics, Washington University in St. Louis , St. Louis, MO
A.M.	May 1999	Physics, Washington University in St. Louis , St. Louis, MO
B.S.	May 1997	Physics, Astronomy option, English minor, Louisiana State University , Baton Rouge, LA (<i>Magna Cum Laude</i>)

RESIDENCY TRAINING

Jul. 2009 – Jun. 2011	CAMPEP Accredited Medical Physics Residency, The University of Texas Southwestern Medical Center , Division of Medical Physics and Engineering, Department of Radiation Oncology, Dallas, TX
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CERTIFICATIONS

May 23, 2012 – present	ABR Therapeutic Medical Physics (enrolled in MOC program)
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PRIMARY EMPLOYMENT

Oct. 2016 – present	Medical Physics Residency Program Director, Willis Knighton Cancer Center , Shreveport, LA
Feb. 2016 – present	Medical Physicist, Willis Knighton Cancer Center , Shreveport, LA

OTHER PROFESSIONAL EXPERIENCE

Aug. 2020 – present	Adjunct Instructor, Tulane University School of Medicine , New Orleans, LA
Oct. 2016 – present	Adjunct Assistant Professor, Louisiana Tech University , Department of Physics, Ruston, LA
Feb. 2016 – Oct. 2016	Deputy Medical Physics Residency Program Director, Willis Knighton Cancer Center , Shreveport, LA
Jan. 2012 – Dec. 2019	Adjunct Assistant Professor, Louisiana State University , Department of Physics & Astronomy, Baton Rouge, LA
Oct. 2012 – Feb. 2016	Deputy Medical Physics Residency Program Director, Mary Bird Perkins Cancer Center , Baton Rouge, LA
Aug. 2011 – Feb. 2016	Academic Medical Physicist, Mary Bird Perkins Cancer Center , Baton Rouge, LA
Mar. 2005 – Jun. 2009	Postdoctoral Researcher in Medical Physics, Louisiana State University , Department of Physics & Astronomy, Baton Rouge, LA
Aug. 2004 – Feb. 2005	Postdoctoral Fellow, Northwestern University Feinberg School of Medicine , Department of Radiology, Chicago, IL
Dec. 2003 – Feb. 2005	Postdoctoral Researcher, Evanston Northwestern Healthcare Research Institute , Center for Basic MR Research, Evanston, IL

- May 1999 – Nov. 2003 Graduate Research Assistant, **Washington University in St. Louis**, Department of Physics, St. Louis, MO
- Aug. 1997 – May 1999 Graduate Teaching Assistant, **Washington University in St. Louis**, Department of Physics, St. Louis, MO
- Aug. 1992 – Aug. 1997 Undergraduate Research Assistant / Research Associate, **Louisiana State University**, Department of Physics & Astronomy, Baton Rouge, LA

AWARDS & HONORS

- 2025 Fellow of the American Association of Physicists in Medicine
- 2024 Robert J. Shalek Award presented by the Southwestern Regional Chapter of the AAPM for an Outstanding Medical Physics Career and Impact on the Field Through Research, Education, and Professional Service. Feb 2025.
- Top downloaded article (topmost read paper in JACMP) 2017-2018 for *Commissioning of the world's first compact pencil-beam scanning proton therapy system*. Wiley. June 2019.
- George Starkschall Award of Excellence for Outstanding Radiation Oncology Physics Article (2018) for *Commissioning of the world's first compact pencil-beam scanning proton therapy system*. Wiley. June 2019.

PROFESSIONAL AFFILIATIONS

- American Society for Radiation Oncology (ASTRO, April 2011 - present)
- American College of Medical Physics (ACMP, 2009 – 2012 when absorbed by AAPM)
- The American Association of Physicists in Medicine (AAPM, 2005 - present)
- Southwest Regional Chapter of the AAPM (2005 – present)
- Society for Neuroscience (SfN, 2004 - 2005)
- Phi Kappa Phi (inducted 1996)
- Society of Physics Students (1994 - 1997)
- Sigma Pi Sigma (1995 - present)

PUBLICATIONS

1. Yohan A. Walter, Chiachien J. Wang, Daniel B. Speir, William E. Burrell, Carlos D. Palomeque, James C. Henry, Megan M. Rodrigues, Troy D. Jacobs, Bethany L. Broekhoven, **Joseph P. Dugas**, Anne N. Hubbard, Philip F. Durham, Hsinshun T. Wu. *Lung tumor control rates with forced shallow breathing stereotactic body radiation therapy*. 2025. (In preparation)
2. Jonathon A. Nye (Work Group Chair), **Joseph P. Dugas** (Work Group Vice Chair), William D. Erwin, David P. Gierga, Darryl G. Kaurin, Stephanie M. Leon, Ho-Ling Anthony Liu, Zheng Feng Lu, Alphonso W. Magri, Lynn N. Rill, Leah K. Schubert, Beth A. Schueler, Irina Vergalasova, John Vetter, Brian D. Wichman, Amy Shu-Jung Yu, Dandan Zheng. *AAPM Task Group No. 249.B— Essentials and Guidelines for Clinical Medical Physics Residency Training Programs*. 2025 J Appl Clin Med Phys; e70111. <https://doi.org/10.1002/acm2.70111>
3. Yohan A. Walter, Chiachien J. Wang, Daniel B. Speir, William E. Burrell, Carlos D. Palomeque, James C. Henry, Megan M. Rodrigues, Troy D. Jacobs, Bethany L. Broekhoven, **Joseph P. Dugas**, Anne N. Hubbard, Philip F. Durham, Hsinshun T. Wu. *Patient Positional Uncertainty and Margin Reduction in Lung Stereotactic Ablative Radiation Therapy Using Pneumatic Abdominal Compression*. Pract Radiat Oncol. 2025 May-Jun;15(3):253-261. doi: 10.1016/j.prro.2024.12.001. Epub 2024 Dec 27. PMID: 39733967.

4. Yohan A. Walter, **Joseph P. Dugas**, Bethany L Broekhoven BL, Troy D. Jacobs, Muhong Han, Chiachien J. Wang, Hsinshun T. Wu. *Effect of prescription isodose line on tissue sparing in linear accelerator-based stereotactic radiosurgery treating multiple brain metastases using dynamic conformal arcs*. 2024 J Appl Clin Med Phys 25(6): e14278. doi: 10.1002/acm2.14278.
5. Rajesh Pidikiti, Bijal C. Patel, Matthew R. Maynard, **Joseph P. Dugas**, Joseph Syh, Narayan Sahoo, Hsinshun Terry Wu, Lane R. Rosen. *Commissioning of the world's first compact pencil-beam scanning proton therapy system*. 2018. J Appl Clin Med Phys 19(1):94-105.
6. Diane Alvarez, Kenneth L. Matthews II , Kyungmin Ham, Marie E. Varnes, Thomas A.D. Brown, **Joseph P. Dugas**, and Kenneth R. Hogstrom. *Impact of IUdR on Rat 9L Glioma Cell Survival for 25-35 keV Photon-Activated Auger Electron Therapy*. 2014. Radiat Res 182(6):607-617.
7. T. A. D. Brown, K. R. Hogstrom, D. Alvarez, K. L. Matthews II, K. Ham, **J. P. Dugas**. *Dose-Response Curve of EBT, EBT2, and EBT3 Radiochromic Films to Synchrotron-Produced Monochromatic X-Ray Beams*. 2012. Med Phys 39(12):7412-7417.
8. Qinan Bao, Brian A. Hrycushko, **Joseph P. Dugas**, Frederick H. Hager, Timothy D. Solberg. 2012. *A Technique for Pediatric Total Skin Electron Irradiation*. 2012. Radiation Oncology 7(40). doi:10.1186/1748-717X-7-40.
9. Nazanin Majdzadeh, Sheena K. Jain, Mike C. Murphy, **Joseph P. Dugas**, Frederick Hager, Ramzi Abdulrahman. 2011. *Total Skin Electron Beam Radiation in a Pediatric Patient with Leukemia Cutis: A case report*. 2012. Journal of Pediatric Hematology/Oncology 34(7):556-558.
10. **Joseph P. Dugas**, Marie E. Varnes, Erno Sajo, Christopher E. Welch, Kyungmin Ham, Kenneth R. Hogstrom. 2011. *Dependence of Cell Survival on IUdR Concentration in 35 keV Photon-activated Auger Electron Radiotherapy*. International Journal of Radiation Oncology Biology Physics 79(1): 255-261.
11. **Joseph P. Dugas**, Scott D. Oves, Erno Sajo, Kenneth L. Matthews II, Kyungmin Ham, and Kenneth R. Hogstrom. 2008. *Monochromatic Beam Characterization for Auger Electron Dosimetry and Radiotherapy*. European Journal of Radiology 68S: S137-S141.
12. Scott D. Oves, Kenneth R. Hogstrom, Kyungmin Ham, Erno Sajo, and **Joseph P. Dugas**. 2008. *Dosimetry intercomparison using a 35-keV X-ray synchrotron beam*. European Journal of Radiology 68S: S121-S125.
13. **Joseph P. Dugas**, Joel R. Garbow, Dale K. Kobayashi, Mark S. Conradi. 2004. *Hyperpolarized ³He MRI of Mouse Lung*. Magnetic Resonance in Medicine 52(6):1310-1317.
14. Joel R. Garbow, **Joseph P. Dugas**, Sheng-Kwei Song, Mark S. Conradi. 2004. *A simple, robust hardware device for passive or active respiratory gating in MRI and MRS experiments*. Concepts in Magnetic Resonance Part B: Magnetic Resonance Engineering 21B(1):40-48.
15. Joel R. Garbow, **Joseph P. Dugas**, Mark S. Conradi. *Respiratory Gating for MRI and MRS in Rodents*. 2003. Proceedings of the Third IEEE Symposium on BioInformatics and BioEngineering (BIBE'03), p. 126.
16. P. Deines-Jones, A. Aranas, M.L. Cherry, **J. Dugas**, D. Kudzia, B.S. Nilsen, K. Sengupta, C.J. Waddington, J.P. Wefel, B. Wilczynska, H. Wilczynski, B. Wosiek. 1997. *Automated track recognition and event reconstruction in nuclear emulsion*. Nuclear Instruments and Methods in Physics Research Section A - Accelerators Spectrometers Detectors and Associated Equipment 390(1-2):219-232.