

CURRICULUM VITAE
Dandan Zheng, PhD, DABR, FAAPM

EDUCATION

2005 - 2007	Ph.D., Applied Science, University of California at Davis
2006 - 2007	M.S., Biomedical Engineering (Double Major), University of California at Davis
2003 - 2005	M.S., Applied Science, University of California at Davis
1998 - 2003	B.S., Biological Sciences, University of Science and Technology of China

POST DEGREE TRAINING

2007 - 2009	Post-doctoral Associate, Radiation Oncology, Virginia Commonwealth University
2015 - 2016	Faculty Success Program, National Center for Faculty Development & Diversity
2019 - 2020	iLead Leadership Training Program, University of Nebraska Medical Center

ACADEMIC APPOINTMENTS

2021-Present	Professor and Director of Medical Physics, Radiation Oncology, University of Rochester, Rochester, NY
2020-2021	Professor, Radiation Oncology, University of Nebraska Medical Center, Omaha, NE
2017-2021	Director, Medical Physics Residency, University of Nebraska Medical Center, Omaha, NE
2015-2020	Associate Professor, Radiation Oncology, University of Nebraska Medical Center, Omaha, NE
2015-2017	Associate Director, Medical Physics Residency, University of Nebraska Medical Center, Omaha, NE
2012-2015	Assistant Professor, Radiation Oncology, University of Nebraska Medical Center, Omaha, NE
2009-2012	Assistant Professor, Radiation Oncology, Virginia Commonwealth University, Richmond, VA

GRANTS

Title:	A novel, smart "Rapid Decision" AI to bridge the major gap in adaptive radiotherapy
Funding Agency:	University of Rochester CTSA award number UL1TR002001 from the National Center for Advancing Translational Sciences of the National Institutes of Health
Project Period:	7/1/2024 – 6/30/2025
Total Dollars:	\$77,000
Role:	PI

Title: Deformation Uncertainties of Gas Pockets in Abdominal and Pelvic
Online Adaptive
Funding Agency: Varian Medical Systems
Project Period: 5/1/2023 – 4/30/2024
Total Dollars: Equipment In-kind Loan
Role (PI): PI

Title: Embracing the uncertainty: Make big data bigger and radiomics models
better
Funding Agency: University of Nebraska
Project Period: 7/1/2020 – 6/30/2022
Total Dollars: \$149,890
Role (PI): Co-PI (Du)

Title: Radiomic characterization of individual tumors for personalized
pancreatic cancer care
Funding Agency: Pilot Grant through NIH SPORE 2P50CA127297-06A1
Project Period: 12/1/2018 – 8/31/2019
Total Dollars: \$85,996
Role (PI): PI

Title: System Science of Pancreatic Cancer
Funding Agency: University of Nebraska
Project Period: 7/1/2017 – 6/30/2019
Total Dollars: \$150,000
Role (PI): Co-PI (Hollingsworth)

Title: Predictive modeling and visual analytics of radiotherapy on pancreatic
cancer treatment, diagnosis, and prognosis
Funding Agency: Great Plains IDEa-CTR
Project Period: 7/1/2018 – 6/30/2019
Total Dollars: \$10,000
Role (PI): Co-PI (Zhang)

Title: SPORE in Gastrointestinal Cancer
Project 2: *Novel Target(s) in the Radiosensitization of Pancreatic Cancer*
ID Number: 2P50CA127297-06A1
Funding Agency: DHHS/NIH/NCI
Project Period: 9/23/2014 – 8/31/2019
Total Dollars: \$7,441,997
Role (PI): Co Investigator (Hollingsworth)

Title: Faculty Diversity Award
Funding Agency: UNMC
Project Period: 7/1/2015 – 6/30/2017
Total Dollars: \$25,000

Role: PI

HONORS AND AWARDS

2024	Service Award, North American Chinese Medical Physicists Association (NACMPA)
2022	Fellow, American Association of Physicists in Medicine (AAPM)
2021	Research mentor for the First Place Winner Jeffrey Wong of the AAPM MRV Chapter Physics Slam
2020	Research mentor for the First Place Winner Sarah Wisnoskie of the AAPM MRV Chapter Young Investigator Symposium
2019	Finalist of the AAPM Innovation in Medical Physics Education Symposium: Development of a Unified Education Framework for Medical Physics Residency (group project)
2017	Outstanding Reviewer Award, Physics in Medicine and Biology
2017	Chancellor's Council Silver 'U' Award, University of Nebraska Medical Center, Omaha, NE
2015	Finalist of the AAPM Innovation in Medical Physics Education Symposium: Enhancing Radiation Physics Instruction Through Gamification and E-Learning (group project)
2013	Outstanding Reviewer Award, International Journal of Radiation Oncology*Biography*Physics
2006-2007	Research Fellowship, NSF Center for Biophotonics
2003-2004	Multidisciplinary University Research Initiative (MURI) Fellowship, University of California/Lawrence Livermore National Lab
2003	Outstanding College Graduate Award - Province Level, University of Science and Technology of China, China
2002	Excellent Undergraduate Scholarship, University of Science and Technology of China, China
2000	Excellent Undergraduate Scholarship, University of Science and Technology of China, China
1999	Excellent Undergraduate Scholarship, University of Science and Technology of China, China
1998	Outstanding Freshman Award, University of Science and Technology of China, China

MEMBERSHIPS IN PROFESSIONAL SOCIETIES

2005-Present	Member, American Association of Physicists in Medicine (AAPM)
2008-Present	Member, American Society of Radiation Oncology (ASTRO)
2019-Present	Member, Society of Directors of Academic Medical Physics Programs (SDAMPP)

COMMITTEE APPOINTMENTS IN PROFESSIONAL SOCIETIES

2017-Present	Member, Residency Evaluation Committee, Commission on Accreditation of Medical Physics Education Programs (CAMPEP)
2016-2018, 2023-Present	Member, JACMP Board of Editors, AAPM
2018-Present	Member, Vice Chair (2024-), Therapy Imaging Subcommittee, AAPM

2019-Present	Member, Work Group on Periodic Review of Medical Physics Residency Training, AAPM
2019-2022	Member, Imaging Metrology and Standards Subcommittee, AAPM
2021-Present	Member, Education Council, AAPM
2021-2024	Member, Global Clinical Education and Training Committee, AAPM
2021-Present	Member, Group on IEC Coordination, AAPM
2021-Present	Member, Research Committee, AAPM
2019-Present	Member, Vice Chair (2022-) Professional Issues Committee, SDAMPP
2019-2021	Member, Research Grants Evaluation Subcommittee, ASTRO
2021-Present	Member, Science Education and Program Development Subcommittee, ASTRO
2021-Present	Member, Scientific Review Panel, ASTRO
2024-Present	Member, NRC Subcommittee, ASTRO
2021-Present	Secretary, North American Chinese Medical Physicists Association
2021-Present	Member, Vice Chair (2023), Chair (2024-), Work Group on Review of Journal Editorial Team and Operation, AAPM
2022-Present	Co-Chair, Train the Trainer Workgroup, AAPM
2022-Present	Member, Workgroup on Clinical Education, AAPM
2022-Present AAPM	Member, Management of Medical Physics Programs and Departments, AAPM
2022-Present	Member, Independent Program Accreditation Assessor, International Organization of Medical Physicists (IOMP)
2023-Present AAPM	EC Representative, Working Group on Task Group Review Streamlining, AAPM
2023-Present (SCAMP)	Mentor, the AAPM Science Council Associates Mentorship Program

EDITORIAL EXPERIENCE

Editorial board:

2010 - 2013	Guest Associate Editor, Medical Physics
2012 – Present	Associate Editor, OMICS: Journal of Radiology
2016 – Present	Associate Editor, Journal of Applied Clinical Medical Physics
2018 – Present	Book Review Editor, Journal of Applied Clinical Medical Physics
2018 – Present	Associate Editor, Technology in Cancer Research & Treatment
2018 – Present	Associate Editor, PLOS ONE
2018 – 2019	Lead Guest Editor, Special Collection on Artificial Intelligence-Based Radiotherapy Treatment Planning, Technology in Cancer Research & Treatment
2021-Present	Associate Editor, Frontiers in Oncology
2021-2022	Associate Editor, Journal of the National Cancer Center
2024	Special Issue Guest Editor, Cancers

Journal review:

Medical Physics

International Journal of Radiation Oncology*Biophysics

Physics in Medicine and Biology
 Journal of Applied Clinical Medical Physics
 Mount Sinai Journal of Medicine
 Medical Dosimetry
 Radiation Oncology
 Current Cancer Therapy Review
 Acta Radiologica
 British Journal of Radiology
 PlosONE
 Technology in Cancer Research & Treatment
 Journal of Radiation Protection
 Biomedical Physics & Engineering Express
 Digital Medicine
 IEEE Access
 Cancer Management and Research
 Scientific Reports
 Cancers
 Diagnostics
 Frontiers in Oncology
 Algorithms
 BMC Bioinformatics
 Journal of Neuro-Oncology
 Journal of the National Cancer Center
 Computational and Structural Biotechnology Journal
 Cancer Controls

Other review:

2017- Present	Residency Reviewer and Site Visitor, Commission on Accreditation of Medical Physics Education Programs (CAMPEP); Reviewed over a dozen therapy physics residency programs for initial or re-accreditation
Various years	Abstract Reviewer, AAPM Annual Meetings, ASTRO Annual Meetings
2018	Grant Reviewer, Breast Cancer Now
2019	Book proposal review, “Applications of Artificial Intelligence in Radiation Therapy”, IOP Publishing
2021	Grant Reviewer, Swiss Cancer League
2022	ASTRO-AAPM research fellowship

INVITED TALKS

1. Adaptive Radiotherapy: Next Generation Radiotherapy, 2025, Visiting Professor, Department of Therapeutic Radiology, Yale University
2. From Theory to Practice: Motion Management Strategies in Radiotherapy, AAPM Spring Clinical Meeting 2025
3. From Traditional Pitfalls to Adaptive Futures: The Evolution of Emergent Radiotherapy Planning, AAPM Spring Clinical Meeting 2025
4. Artificial Intelligence in Adaptive Radiotherapy, Midwest Radiation Oncology Symposium 2024

5. Navigating Medical Physics Career and Promotion in a University Setting, 2024 AAPM Annual Meeting
6. Uses of AI in Radiology and Radiation Oncology, AAPM Annual Meeting 2022 (SAM)
7. Quick Start Guide to New Procedures and Technologies in Radiotherapy, AAPM Spring Clinical Meeting 2022 (SAM)
8. Prepare and Prevent: Safety in EBRT, AAPM Spring Clinical Meeting 2021 (SAM)
9. Panel Discussion on Standardization of Medical Physics Education and Training in China, Global Forum on Medical Physics Education, 2021 Virtual
10. Radiomics for personalized cancer care, 2020 Midwest Radiation Oncology Symposium, 2020
11. Radiomics in personalized cancer management, Creighton University. 2019.
12. Radiomics in personalized cancer management, Biochemistry and Molecular Biology, UNMC. 2019.
13. Radiomics study for pancreatic cancer, Gastrointestinal Cancer Program Meeting, UNMC. 2019
14. Advances of radiomics applications in radiation oncology, Peking University, China, 2018, 2019.
15. Radiomics predictive modeling for pancreatic cancer, Cancer Biomarker Lab, UNMC, 2018
16. Radiomics and big data integration in cancer, University of Nebraska Lincoln. 2018
17. Hunting the shadow: the investigation of a cone beam CT bowtie-wobble artifact. University of California San Diego Center for Advanced Radiotherapy Technologies (CART) research seminar series. 2011.
18. An innovative, simple, and robust needle tip detection method for HDR prostate imaging and planning. Varian Medical Systems. 2010.

COMMUNITY SERVICE/OUTREACH

Faculty	Women in Science Conference, University of Nebraska Lincoln, 2015, 2016, 2017, 2018, 2019
Faculty	Math Day, University of Nebraska Lincoln, 2012, 2013, 2014
Mentor	Summer Undergraduate Research Program, UNMC, 2015, 2016, 2017, 2018, 2019, 2020, 2021

SELECTED PUBLICATIONS

A. ARTICLES PUBLISHED IN PEER REVIEWED JOURNALS

1. Jonathon A. Nye, Joseph P. Dugas, 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 program, *Journal of Applied Clinical Medical Physics*, (2025).
2. Watchman, C. J., & **Zheng, D.** (2025). Methods for working with problem residents in medical physics residency education. *Journal of Applied Clinical Medical Physics*, e70068.

3. **Zheng, D.**, Cummings, M., Zhang, H., Podgorsak, A., Li, F., Dona Lemus, O., ... & Tanny, S. (2025). Clinical Practice-Based Failure Modes and Root Cause Analysis of Cone Beam CT-Guided Online Adaptive Radiotherapy of the Pelvis. *Cancers*, 17(9), 1462.
4. **Zheng, Dandan**, Kiersten Preuss, Michael T. Milano, Xiuxiu He, Lang Gou, Yu Shi, Brian Marples et al. "Mathematical modeling in radiotherapy for cancer: a comprehensive narrative review." *Radiation Oncology* 20, no. 1 (2025): 49.
5. Milano, Michael T., Sara Hardy, **Dandan Zheng**, Terris Igwe, Daniel Huang, Amit K. Chowdhry, Jihyung Yoon et al. "Stereotactic radiosurgery alone for patients with 16 or more brain metastases: Retrospective single-institution analysis." *World Neurosurgery*: X 26 (2025): 100432.
6. Filippo Alongi, **Dandan Zheng**, and Indra J. Das. "MR-Linac is a better choice for adaptive therapy compared to cone-beam CT." *Medical Physics* (2025).
7. Joshua Wancura, Olga M. Dona Lemus, Sean Tanny, Jihyung Yoon, Matthew Webster, Louis Constine, and **Dandan Zheng**, Does Extending the Body Contour into Air Enhance Surface Dose Calculation Accuracy? *Medical Dosimetry* (2025).
8. Rivais, W., Constine, L., Pacella, M., Joyce, N., Nagey, M., Webster, M., ... & **Zheng, D.** (2024). Comparative analysis of fetal dose sparing between a C-arm linac and an O-ring linac in a SIB-VMAT sarcoma treatment for a pregnant patient: A technical note and case report. *Journal of Applied Clinical Medical Physics*, e14556.
9. Alex Schick, Sara Hardy, Myla Strawderman, **Dandan Zheng**, Michael Cummings, Michael T Milano, Allison Magnuson, Jacqueline Behr, Sarah Sammons, Kenneth Usuki, Nimish Mohile, Ruth O'Regan, Carey K Anders, David Hicks, Ajay Dhakal. Impact of systemic disease on CNS disease control after stereotactic radiosurgery to breast cancer brain metastases (The SYBRA Study). *npj Breast Cancer*, 10(1), 69.
10. Tanny S, Dona Lemus OM, Wancura J, Sperling N, Webster M, Jung H, Zhou Y, Li F, Yoon J, Podgorsak A, **Zheng D.** MU variability in CBCT-guided online adaptive radiation therapy. *J Appl Clin Med Phys*. 2024 Jun 19:e14440. doi: 10.1002/acm2.14440. Epub ahead of print. PMID: 38896835.
11. Webster M, Dona Lemus OM, Tanny S, Cummings M, **Zheng D.** Cone-Beam Computed Tomography (CBCT)-Based Online Adaptive Radiation Therapy (oART) for a Prostate Cancer Patient With Inflammatory Bowel Disease and Bilateral Total Hip Arthroplasty: A Case Report. *Cureus* 2024 Sep 9;16(9):e68990. PMID: 39385924
12. **Zheng D**, Grandgenett PM, Zhang Q, Baine M, Shi Y, Du Q, Liang X, Wong J, Iqbal S, Preuss K, Kamal A, Yu H, Du H, Hollingsworth MA, Zhang C. radioGWAS links radiome to genome to discover driver genes with somatic mutations for heterogeneous tumor image phenotype in pancreatic cancer. *Sci Rep*. 2024 May 29;14(1):12316. doi: 10.1038/s41598-024-62741-5. PMID: 38811597; PMCID: PMC11137018.
13. Webster M, Dona Lemus OM, **Zheng D**, Wancura JN, Tanny S, Sakthivel G, Constine L. Case study with dosimetric analysis: Total body irradiation to a patient with a left ventricular assist device. *Clin Case Rep*. 2024 May 15;12(5):e8868. doi: 10.1002/ccr3.8868. PMID: 38756618; PMCID: PMC11096280.
14. **Zheng, D.**, Yoon, J., Jung, H., Lemus, O. M. D., Gou, L., Zhou, Y., ... & Milano, M. T. (2024). How does the number of brain metastases correlate with normal brain exposure in single-isocenter multi-target multi-fraction SRS. *Advances in Radiation Oncology*, 101499. (**highlighted by Quadshot newsletter**)

15. Dona Lemus, O. M., Cao, M., Cai, B., Cummings, M., & **Zheng, D.** (2024). Adaptive Radiotherapy: Next-Generation Radiotherapy. *Cancers*, 16(6), 1206.
16. Jung, H., Yoon, J., Dona Lemus, O. ...& **Zheng D.** Dosimetric evaluation of LINAC-based single-isocenter multi-target multi-fraction stereotactic radiosurgery with more than 20 targets: comparing MME, HyperArc, and RapidArc. *Radiat Oncol* 19, 19 (2024). <https://doi.org/10.1186/s13014-024-02416-7>
17. Shi, Y., Tang, H., Sun, J., Xie, X., Du, H., **Zheng, D.**, ... & Yu, H. (2023, December). Tissue-Specific Color Encoding and GAN Synthesis for Enhanced Medical Image Generation. In 2023 IEEE International Conference on Big Data (BigData) (pp. 4344-4349). IEEE Computer Society.
18. Shi, Y., Tang, H., Baine, M. J., Hollingsworth, M. A., Du, H., **Zheng, D.**, ... & Yu, H. (2023). 3DGAUnet: 3D Generative Adversarial Networks with a 3D U-Net Based Generator to Achieve the Accurate and Effective Synthesis of Clinical Tumor Image Data for Pancreatic Cancer. *Cancers*, 15(23), 5496.
19. Yoon, J., Jung, H., Tanny, S. M., Lemus, O. M. D., Milano, M. T., Hardy, S. J., ... & **Zheng, D.** (2023). A comprehensive evaluation of advanced dose calculation algorithms for brain stereotactic radiosurgery. *Journal of Applied Clinical Medical Physics*, e14169.
20. Hardy, S.J., Finkelstein, A., Milano, M.T., Schifitto, G., Sun, H., Holley, K., Usuki, K., Weber, M.T., **Zheng, D.**, Seplaki, C.L. and Janelsins, M., 2023. Association of Radiation Dose to the Amygdala–Orbitofrontal Network with Emotion Recognition Task Performance in Patients with Low-Grade and Benign Brain Tumors. *Cancers*, 15(23), p.5544.
21. Beriwal S, Corrigan KL, McDermott PN, Ryckman J, Tsao MN, **Zheng D**, Joiner MC, Dominello MM, Burmeister J. Three Discipline Collaborative Radiation Therapy (3DCRT) special debate: Radiation oncology has become so technologically complex that basic fundamental physics should no longer be included in the modern curriculum for radiation oncology residents. *J Appl Clin Med Phys*. 2023 Sep;24(9):e14128. doi: 10.1002/acm2.14128. Epub 2023 Aug 22. PMID: 37606366; PMCID: PMC10476972.
22. Ashenafi M, Jeong S, Wancura JN, Gou L, Webster MJ, & **Zheng D.** A quick guide on implementing and quality assuring 3D printing in radiation oncology. *J Appl Clin Med Phys*. 2023 Jul 27:e14102. doi: 10.1002/acm2.14102. Epub ahead of print. PMID: 37501315. **(top 10% of most-viewed papers published by the journal in 2023)**
23. Lemus OMD, Tanny S, Cummings M, Webster M, Wancura J, Jung H, Zhou Y, Yoon J, Pacella M, & **Zheng D.** Influence of air mapping errors on the dosimetric accuracy of prostate CBCT-guided online adaptive radiation therapy. *J Appl Clin Med Phys*. 2023 Jun 5:e14057. doi: 10.1002/acm2.14057. Epub ahead of print. PMID: 37276082.
24. Li, Y., Bi, J., Pi, G., He, H., Li, Y., **Zheng, D.**, Wei, Z. and Han, G., 2023. Optimizing induction chemotherapy regimens for radiotherapy in patients with locoregionally advanced nasopharyngeal carcinoma. *Cancer Medicine*, 12(8), pp.9449-9457.
25. Preuss K, Thach N, Liang X, Baine M, Chen J, Zhang C, Du H, Yu H, Lin C, Hollingsworth MA, & **Zheng D.** Using Quantitative Imaging for Personalized Medicine in Pancreatic Cancer: A Review of Radiomics and Deep Learning Applications. *Cancers (Basel)*. 2022 Mar 24;14(7):1654. doi: 10.3390/cancers14071654. PMID: 35406426; PMCID: PMC8997008. PMID: 35406426 **(Editor's Choice Articles)**
26. Liu C, Bradley JA, **Zheng D**, Vega RBM, Beltran CJ, Mendenhall N, Liang X. RBE-weighted dose and its impact on the risk of acute coronary event for breast cancer

- patients treated with intensity modulated proton therapy. *J Appl Clin Med Phys*. 2022 Apr;23(4):e13527. doi: 10.1002/acm2.13527. Epub 2022 Jan 21. PMID: 35060317
27. Wong J, Baine M, Wisnoskie S, Bennion N, Zheng D, Yu L, Dalal V, Hollingsworth MA, Lin C, **Zheng D**. Effects of interobserver and interdisciplinary segmentation variabilities on CT-based radiomics for pancreatic cancer. *Sci Rep*. 2021 Aug 11;11(1):16328. doi: 10.1038/s41598-021-95152-x. PMID: 34381070
 28. Michael Baine, Justin Burr, Qian Du, Chi Zhang, Xiaoying Liang, Luke Krajewski, Laura Zima, Gerard Rux, Chi Zhang, **Dandan Zheng**, “The Potential Use of Radiomics with Pre-Radiation Therapy MR Imaging in Predicting Risk of Pseudoprogression in Glioblastoma Patients”, January 2021, *Journal of Imaging* 7(2):17 DOI: 10.3390/jimaging7020017 PMID:34460616
 29. Yu Shi, Ethan Wahle, Qian Du, Luke Krajewski, Xiaoying Liang, Sumin Zhou, Chi Zhang *, Michael Baine *, **Dandan Zheng ***, “Associations between Statin/Omega3 Usage and MRI-based Radiomics Signatures in Prostate Cancer”, *Diagnostics (Basel)*. 2021 Jan 7;11(1):85. doi: 10.3390/diagnostics11010085. PMID: 33430275
 30. **Dandan Zheng**, “Book Review of Artificial Intelligence in Medicine Edited by Lei Xing, Maryellen Giger, and James Min”, *J Appl Clin Med Phys* 2021; 22:1:355–356
 31. Sarah B. Wisnoskie, Xiaoying Liang, Andrew O. Wahl, Nathan R. Bennion, Andrew D. Granatowicz, Sumin Zhou, **Dandan Zheng**, “Using Flattening Filter Free (FFF) Beams in Electronic Tissue Compensation (ECOMP) Whole Breast Irradiation with Deep Inspiration Breath Hold (DIBH), *JACMP*, 2020, 21:12, 280-287, PMID: 33270988
 32. Chunbo Liu, **Dandan Zheng**, Julie A. Bradley, Raymond B. Mailhot Vega, Yawei Zhang, Daniel J Indelicato, Nancy Mendenhall, and Xiaoying Liang, “Incorporation of the LETd-weighted biological dose in the evaluation of breast intensity-modulated proton therapy plans”, *Acta Oncologia*, 2020 Oct 16;1-8. doi: 10.1080/0284186X.2020.1834141 PMID: 33063569
 33. Chunbo Liu, **Dandan Zheng**, Julie A. Bradley, Raymond B. MailhotVega, Zuofeng Li, Nancy P. Mendenhall, Xiaoying Liang, “Patient-specific quality assurance and plan dose errors on breast intensity-modulated proton therapy”, *Physica Medica*, September 2020, 84-91 PMID: 32799050
 34. **Dandan Zheng**, “Review of radiomics and radiogenomics and big data in radiation oncology”, <https://doi.org/10.1002/acm2.12955>, *J. Appl. Clin Med Phys* (2020)
 35. Elsa Parr; Qian Du; Chi Zhang; Chi Lin; Ahsan Kamal; Josiah McAlister; Xiaoying Liang; Kyle Bavitz; Gerard Rux; Michael Hollingsworth; Michael Baine; **Dandan Zheng***. Radiomics-Based Outcome Prediction for Pancreatic Cancer Following Stereotactic Body Radiotherapy. *Cancers* 2020. 12. 1051. 10.3390/cancers12041051. PMID: 32344538
 36. Zhou SM, **Zheng D**, Fan Q, Yan Y, Wang S, Lei Y, Besemer A, Zhou C, Enke C, Minimum dose rate estimation for pulsed FLASH radiotherapy: A dimensional analysis, *Medical Physics*, April 12, 2020. PMID: 32279337
 37. Wei Wei*, **Dandan Zheng***, Yu Lei, Shen Wu, Vivek Verma, Yongsheng Liu, Xueyan Wei, Jianping Bi, Desheng Hu, Guang Han, “Radiotherapy Workflow and Protection Procedures During the Coronavirus Disease 2019 (COVID-19) Outbreak: Experience of the Hubei Cancer Hospital in Wuhan, China”, *Radiother Oncol*. 2020 Mar 30 doi: 10.1016/j.radonc.2020.03.029. **(co-first author)** PMID: 32342870

38. Shen Wu*, **Dandan Zheng***, Yongsheng Liu, Desheng Hu, Wei Wei, Guang Han, "Radiotherapy care during a major outbreak of COVID-19 in Wuhan", *Advances in Radiation Oncology*, March 2020 (**co-first author**)
39. Jeffrey Ryckman, Michael Baine, Joseph Carmicheal, Ferdinand Osayande, Richard Sleightholm, Kaeli Samson, Weining Zhen, Chi Lin, Chi Zhang, & **Dandan Zheng**. Correlation of dosimetric factors with the development of symptomatic radiation pneumonitis in stereotactic body radiotherapy. *Radiat Oncol* 15, 33 (2020). PMID: 32054487
40. Xiaoying Liang, Raymond B. Mailhot Vega, Zuofeng Li, **Dandan Zheng**, Nancy Mendenhall, Julie A. Bradley. "Dosimetric consequences of image guidance techniques on robust optimized intensity-modulated proton therapy for treatment of breast Cancer", *Radiat Oncol*. 2020; 15: 47. Published online 2020 Feb 27. doi: 10.1186/s13014-020-01495-6 PMID: 32103762
41. **Dandan Zheng**, Julian Hong, Chunhao Wang, and Xiaofeng Zhu, "Radiotherapy treatment planning in the age of AI: Are we ready yet?", 2019; 18: 1533033819894577 PMID: 31858890
42. X Liang, J Bradley, R Vega, M Rutenberg, **D Zheng**, N Getman, K Norton, N Mendenhall, and Z Li, "Using Robust Optimization for Skin Flashing in Intensity-Modulated Radiotherapy for Breast Cancer Treatment: A Feasibility Study", *Practical Radiation Oncology*, 2019 Oct 15. pii: S1879-8500(19)30307-8. doi: 10.1016/j.prro.2019.09.017 PMID: 31627030
43. Chunhao Wang, Xiaofeng Zhu, Julian Hong, and **Dandan Zheng**, "Artificial Intelligence in Radiotherapy Treatment Planning: Present and Future", 2019 Jan 1;18 doi: 10.1177/1533033819873922. PMID: 31495281
44. Andrew Godley* and **Dandan Zheng***, Yi Rong, "MR-linac is the best modality for lung SBRT", *J Appl Clin Med Phys*. 2019 Jun;20(6):7-11. doi: 10.1002/acm2.12615. (**co-first author**) PMID: 31112368
45. April Smith, Andrew Granatowicz, Cole Stoltenberg, Shuo Wang, Xiaoying Liang, Charles A Enke, Andrew O Wahl, Sumin Zhou, and **Dandan Zheng**, "Can the Student Outperform the Master? A plan comparison between Pinnacle Auto-Planning and Eclipse knowledge-based RapidPlan following a prostate-bed plan competition", *Technol Cancer Res Treat*. 2019 Jun; 18: 1533033819851763. PMID: 31177922
46. Shuo Wang, **Dandan Zheng**, Chi Lin, Yu Lei, April Smith, Rongtao Ma, Charles Enke, Vivek Verma, Sumin Zhou, "Technical Assessment of An Automated Treatment Planning On Dose Escalation of Pancreas Stereotactic Body Radiotherapy", *Technol Cancer Res Treat*. 2019Jun; 18: 1533033819851520. PMID: 31195891
47. Qian Du, Michael Baine, Kyle Bavitz, Josiah McAllister, Xiaoying Liang, Hongfeng Yu, Jeffrey Ryckman, Lina Yu, Hengle Jiang, Sumin Zhou, Chi Zhang, and **Dandan Zheng**, "Radiomic feature stability across 4D respiratory phases and its impact on lung tumor prognosis prediction", *PLoS One*. 2019 May; 14(5): e0216480. PMID: 31063500
48. Liang X, Li Z, **Zheng D**, Rutenberg M, Mendenhall N, Bradley JA. "The Impact of Dose Algorithms on Tumor Control Probability in Intensity-Modulated Proton Therapy for Breast Cancer", *Phys Med*. 2019 May; 61:52-57. doi: 10.1016/j.ejmp.2019.04.011. PMID: 31151579
49. Liang X, Li Z, **Zheng D**, Bradley JA, Rutenberg M, Mendenhall N. "A comprehensive dosimetric study of Monte Carlo and pencil-beam algorithms on intensity-modulated

- proton therapy for breast cancer". J Appl Clin Med Phys. 2019 Jan;20(1):128-136 PMID: 30488548
50. Xiaoying Liang, **Dandan Zheng**, Maria Mamalui-Hunter, Stella Flampouri, Bradford S Hoppe, Nancy Mendenhall, Zuofeng Li, "ITV-based Robust Optimization for VMAT planning of Stereotactic Body Radiotherapy of Lung Cancer", Pract Radiat Oncol. 2019 Jan;9(1):38-48 PMID: 30138747
 51. Vivek Verma, Waqar Haque, **Dandan Zheng**, Ferdinand Osayande, Chi Lin, "Patterns of Care and Outcomes of Elderly Esophageal Cancer Patients Not Meeting Age-Based Criteria of the CROSS Trial", American Journal of Clinical Oncology, 2019 Jan;42(1):67-74. PMID: 30216194
 52. Xiaoying Liang, Julie A. Bradley, **Dandan Zheng**, Michael Rutenberg, Daniel Yeung, Nancy Mendenhall, Zuofeng Li, "Prognostic factors of radiation dermatitis following passive-scattering proton therapy for breast cancer", Radiat Oncol (2018) 13: 72. PMID: 29673384
 53. Qian Du, Chi Zhang, Xiaofeng Zhu, Xiaoying Liang, Chi Zhang, Vivek Verma, Kenneth Follet, Shuo Wang, Qiyong Fan, Rongtao Ma, Sumin Zhou, **Dandan Zheng**, "Application of statistical and computational methodology to predict brainstem dosimetry for trigeminal neuralgia stereotactic radiosurgery", Medical physics 45 (5), 1822-1831(2018) PMID: 29520796
 54. **Dandan Zheng**, Vivek Verma, Shuo Wang, Xiaoying Liang, and Sumin Zhou. "Does Intensity Modulation Increase Target Dose Calculation Errors of Conventional Algorithms for Lung SBRT?", J. Appl. Clin Med Phys, 19 (2), 154-159 (2018) PMID: 29388325
 55. Yu L, Jiang H, Yu H, Zhang C, Mcallister J, **Zheng D**. iVAR: Interactive Visual Analytics of Radiomics Features from Large-Scale Medical Images. 2017 IEEE International Conference on Big Data (Big Data)2017.
 56. Sumin Zhou, Qiuwen Wu, Xiaobo Li, Rongtao Ma, **Dandan Zheng**, Shuo Wang, Mutian Zhang, Sicong Li, Yu Lei, Qiyong Fan, Megan Hyun, Tyler Diener, Charles Enke. Using weighted power mean for equivalent square estimation. J. Appl. Clin Med Phys (2017) PMID: 29087037
 57. Xiaofeng Zhu, Yu Lei, **Dandan Zheng**, Sicong Li, Vivek Verma, Mutian Zhang, Qinghui Zhang, Xiaoli Tang, Jun Lian, Sha X. Chang, Haijun Song, Sumin Zhou, Charles A. Enke. A Feasibility Study of Applying Thermal Imaging to Assist Quality Assurance of High-Dose Rate Brachytherapy, Cancer Transl Med 2017;3(5):159–66
 58. Zhang,Q., Driewer,J., Wang,S., Li,S., Zhu,X., **Zheng,D.**, Cao,Y., Zhang,J., Jamshidi,A., Cox,B.W., Knisely,J.P.S., Potters,L., Klein,E.E. Accuracy evaluation of a six-degree-of-freedom couch using cone beam CT and IsoCal phantom with an in-house algorithm. Med.Phys. (2017) PMID: 28500790
 59. C. Zhou, N.Bennion, R Ma, X. Liang, S. Wang, K. Zvolanek, M. Hyun, X. Li, S. Zhou, W. Zhen, C. Lin, A. Wahl, and **D. Zheng***. A comprehensive dosimetric study on switching from a Type-B to a Type-C dose algorithm for modern lung SBRT. Radiation Oncology. (2017) PMID: 28476138

60. Mao,B., Verma,V., **Zheng,D.**, Zhu,X., Bennion,N.R., Bhirud,A.R., Poole,M.A., Zhen,W.
Target migration from re-inflation of adjacent atelectasis during lung stereotactic body
radiotherapy. *World J.Clin.Oncol.* (2017) PMID: 28638802
61. K. Zvolanek, R. Ma, C. Zhou, X. Liang, S. Wang, V. Verma, X. Zhu, Q. Zhang, J.
Driewer, C. Lin, W. Zhen, A. Wahl, S. Zhou, and **D. Zheng**. Still equivalent for dose
calculation in the monte carlo era? A comparison of free breathing and average intensity
projection CT datasets for lung SBRT using three generations of dose calculation
algorithms. *Med Phys.* 2017. PMID: 28273341
62. V. Verma, A. J. Lazenby, **D. Zheng**, A. R. Bhirud, Q. P. Ly, C. Are, A. R. Sasson, and C.
Lin. Dosimetric parameters correlate with duodenal histopathologic damage after
stereotactic body radiotherapy for pancreatic cancer: Secondary analysis of a prospective
clinical trial. *Radiother Oncol.* 122:3(2017) PMID: 28089484
63. S. Wang, **D. Zheng**, C. Zhang, R. Ma, N. R. Bennion, Y. Lei, X. Zhu, C. A. Enke, and S.
Zhou. Automatic planning on hippocampal avoidance whole-brain radiotherapy. *Med
Dosim.* 42:1 (2017) PMID: 28237294
64. Gruhl JD, **Zheng D**, Longo JL, Enke C, Wahl AO.Comparing organ-at-risk doses for
high-dose-rate vaginal brachytherapy between three different planning workflows.
Brachytherapy. 2017 Mar - Apr;16(2):373-377. doi: 10.1016/j.brachy.2016.11.008.
(2017) PMID: 28039010
65. S. Zhou, X. Zhu, M. Zhang, **D. Zheng**, Y. Lei, S. Li, N. Bennion, V. Verma, W. Zhen,
and C. Enke. Estimation of internal organ motion-induced variance in radiation dose in
non-gated radiotherapy. *Phys Med Biol.* 61:23(2016) PMID: 27804926
66. **Dandan Zheng**, Xiaofeng Zhu, Qinghui Zhang, Xiaoying Liang, Weining Zhen,
Chi Lin, Vivek Verma, Shuo Wang, Andrew Wahl, Yu Lei, Sumin Zhou and Chi Zhang,
“Target dose conversion modeling from pencil beam (PB) to Monte Carlo (MC) for lung
SBRT”, *Radiation Oncology* 11:83 (2016) PMID: 27804926
67. **Dandan Zheng**, Qinghui Zhang, Xiaoying Liang, Xiaofeng Zhu, Vivek Verma, Shuo
Wang, and Sumin Zhou, “Effect of the normalized prescription isodose line on the
magnitude of Monte Carlo vs. pencil beam target dose differences for lung stereotactic
body radiotherapy”, *J. Appl. Clin Med Phys* Volume 17, Number 4 (2016) PMID:
27455476
68. X. Liang, J. Penagaricano, **D. Zheng**, S. Morrill, X. Zhang, P. Corry, R. J.Griffin, E. Y.
Han, M. Hardee, V. Ratanatharathom, “Radiobiological impact of dose calculation
algorithms on biologically optimized IMRT lung stereotactic body radiation therapy
plans”, *Radiation Oncology*, 11:10 (2016) PMID: 26800883
69. Xiaofeng Zhu, Joseph Driewer, Sicong Li, Vivek Verma, Yu Lei, Mutian Zhang, Qinghui Zhang,
Dandan Zheng, Timothy Cullip, Sha X. Chang, Andrew Z. Wang, Sumin Zhou and Charles A Enke,
“Technical Note: Fabricating Cerrobend grids with 3D printing for spatially modulated radiation
therapy: A feasibility study”, *Med. Phys.* **42**, 6269 (2015) PMID: 26520719
70. Qinghui Zhang, **Dandan Zheng**, Lei Yu, Brandon Morgan, Joseph Driewer, Mutian Zhang, Sicong
Li, Sumin Zhou, Weining Zhen, Robert Thompson, Andrew Wahl, Chi Lin, Charles Enke, “A new
variable for SRS plan quality evaluation based on normal tissue sparing: The Effect of

Prescription Isodose Levels”, British Journal of Radiology, 2014, (87), 1043 PMID: 25226047

71. J J Soucek, M J Baine, C Lin, S Rachagani, S Gupta, S Kaur, K Lester, **D Zheng**, S Chen, L Smith, A Lazenby, S L Johansson, M Jain, and S K Batra, “Unbiased analysis of pancreatic cancer radiation resistance reveals cholesterol biosynthesis as a novel target for radiosensitisation”, British Journal of Cancer (2014) 111, 1139–1149. PMID: 25025965
72. Bo Yao; **Dandan Zheng**; Shide Liang; Chi Zhang. “Conformational B-Cell Epitope Prediction on Antigen Protein Structures: A Review of Current Algorithms and Comparison with Common Binding Site Prediction Methods” PLoS ONE. 8 : 2013 PMID: 23620816
73. Shide Liang; **Dandan Zheng**; Daron M. Standley; Huarong Guo; Chi Zhang. “A novel function prediction approach using protein overlap networks”, BMC Systems Biology. 7 : 2013 PMID: 23866986
74. **Dandan Zheng**; Jun Lu; Ariel Jefferson; Cheng Zhang; Jian Wu; William Sleeman; Elisabeth Weiss; Nesrin Dogan; Shiyu Song; Jeffrey Williamson, “A protocol to extend the longitudinal coverage of on-board cone-beam CT”, Journal of Applied Clinical Medical Physics. 13 : 141-151. 2012 PMID: 22766950
75. **Dandan Zheng**, “The Use of Cone Beam Computed Tomography in Image-Guided Radiotherapy”, OMICS: Journal of Radiology. 2012
76. **Dandan Zheng**; Dorin A. Todor, “A novel method for accurate needle-tip identification in trans-rectal ultrasound-based high-dose-rate prostate brachytherapy”, Brachytherapy. 10 : 466-473. 2011 PMID: 21549646
77. Shide Liang; **Dandan Zheng**; Chi Zhang; Daron M. Standley, “Fast and accurate prediction of protein side-chain conformations”, Bioinformatics. 27 : 2913-2914. 2011 PMID: 21873640
78. J. Chetley Ford; **Dandan Zheng**; Jeffrey F. Williamson, “Estimation of CT cone-beam geometry using a novel method insensitive to phantom fabrication inaccuracy: Implications for isocenter localization accuracy”, Medical Physics. 38 : 2829-2840. 2011 PMID: 21815358
79. **Dandan Zheng**; John C. Ford; Jun Lu; Dimitrios Lazos; Geoffrey D. Hugo; Damodar Pokhrel; Lisha Zhang; Jeffrey F. Williamson, “Bow-tie wobble artifact: Effect of source assembly motion on cone-beam CT”, Medical Physics. 38 : 2508-2514. 2011 PMID: 21776785
80. Shide Liang; **Dandan Zheng**; Daron M. Standley; Bo Yao; Martin Zacharias; Chi Zhang, “EPSVR and EPMeta: Prediction of antigenic epitopes using support vector regression and multiple server results”, BMC Bioinformatics. 11 : 2010 PMID: 21776785
81. Shide Liang; **Dandan Zheng**; Chi Zhang; Martin Zacharias, “Prediction of antigenic epitopes on protein surfaces by consensus scoring”, BMC Bioinformatics. 10 : 302. 2009 PMID: 19772615
82. Shih-Ying Huang; John M. Boone; **Dandan Zheng**; Kai Yang; Nathan J. Packard; George Burkett Jr., “Simulation and phantom studies of Contrast-Enhanced Dual Energy Mammography (CEDEM)”, Lecture Notes in Computer Science. 5116 LNCS : 124-129. 2008
83. **D. Zheng**; W.J. Frederick; C. DeStefano; A.E. Vlieks; E. Landahl; A. Kwan; J.P. Heritage; A. Norman; J.M. Boone; N.C. Luhmann Jr., “The monochromatic Compton x-ray source for cancer diagnostics and therapy”, IRMMW-THz 2006 - 31st International

B. BOOK CHAPTERS

1. **Dandan Zheng**, Rachel Ger, Julian Hong. Artificial Intelligence in Radiation Oncology. *Fundamentals of Radiation Oncology: Physical, Biological, and Clinical Aspects*, Fourth Edition. Elsevier. July 2024
2. Olga Maria Dona Lemus, Minsong Cao, Bin Cai, Michael Cummings, and **Dandan Zheng**. Adaptive Radiotherapy. *Fundamentals of Radiation Oncology: Physical, Biological, and Clinical Aspects*, Fourth Edition. Elsevier. July 2024
3. X Zhu, J Fan, A Chawla, **D Zheng**. Artificial Intelligence in Radiation Therapy Treatment Planning. *Artificial Intelligence in Radiation Oncology*. World Scientific Publishing, <https://doi.org/10.1142/13060> | January 2023
4. **Dandan Zheng**, Shide Liang, Chi Zhang. B-cell epitope predictions using computational methods, *Methods in Molecular Biology*, Tsumoto and Kuroda (Eds): Computer-Aided Antibody Design, Springer Nature, 2023;2552:239-254. doi: 10.1007/978-1-0716-2609-2_12.
5. B. Yao, **D. Zheng**, S. Liang, C. Zhang. SVMTriP: A method to predict B-cell linear antigenic epitopes, in Immunoinformatics - Methods and Protocols, *Third Edition, Methods in Molecular Biology*, Springer Science and Business Media, Humana Press, New York, 2019
6. S. Liang, **D. Zheng**, B. Yao, C. Zhang. EPCES and EPSVR: Prediction of B-cell Antigenic Epitopes on Protein Surfaces with conformational information, in Immunoinformatics - Methods and Protocols, *Third Edition, Methods in Molecular Biology*, Springer Science and Business Media, Humana Press, New York, 2019
7. X Zhu and **D Zheng**, “Thermal imaging applications in HDR brachytherapy dosimetry”, *Recent Advancements and Applications in Dosimetry* (2018), ISBN 978-1-53613-759-0.

C. ABSTRACTS AND CONFERENCE PRESENTATIONS

1. **D. Zheng**, W. Frederick, C. DeStefano, A. Vielks, J. Heritage, N.C. Luhmann, Jr., A. Norman, A. Kwan, and J. M. Boone, “the Monochromatic Compton X-ray Source for Cancer Diagnostics and Therapy”, International Conference on Infrared and Millimeter Waves and 14th International Conference on Terahertz Electronics, Shanghai, China, 2006
2. **D. Zheng** and N. C. Luhmann, Jr., “Monte Carlo Simulation Investigation on Dose Enhancement Effects for X-ray Phototherapy”, NSF Center for Biophotonics Annual Meeting, Lake Tahoe, CA, 2006
3. Hwang S; **Zheng D**; Boone J; Parkard N. A Phantom Study on Contrast Enhanced Dual Energy Subtraction Mammography. the 49th AAPM Annual Meeting; Minneapolis, MN, USA. 2007
4. **Zheng D**; Hwang S; Zhou H; Boone JM. Simulation Studies on Contrast Enhanced Dual Energy Subtraction Mammography. the 49th AAPM Annual Meeting; Minneapolis, MN, USA. 2007
5. **Zheng D**; Frederick W; DeStefano C; Vielks A; Heritage J; Luhmann NC; Norman A. A

- synergy of imaging, therapy and targeted drug delivery using an innovative compact and tunable monochromatic x-ray source. the 2008 ASTRO Translational Advances in Radiation Oncology and Cancer Imaging Symposium; Arlington, VA, USA. 2008
6. Lu J; **Zheng D**; Keall P; Weiss E; Bartee C; Williamson JF. Comparison of Residual Motion Artifacts in Phase- and Amplitude-Binned Onboard 4D-CBCT Imaging. the 50th AAPM Annual Meeting; Houston, TX, USA. 2008
 7. **Zheng D**; Lu J; Lazos D; Williamson JF. Cone Beam CT Beam Hardening and Scatter Preprocessing for Improved Image Quality in Image-Guided Adaptive Radiation Therapy. the 50th AAPM Annual Meeting; Houston, TX, USA. 2008
 8. **Zheng D**; Lu J; Wu J; Weiss E; Dogan N; Williamson JF. A Protocol to Extend On-Board Cone-Beam CT Longitudinal Coverage with Multiple Orbits. the 50th AAPM Annual Meeting; Houston, TX, USA. 2008
 9. **Zheng D**; Zhang C; Lu J; Jefferson A; Wu J; Christensen G; Weiss E; Dogan N; Williamson JF. Extended Field-of-View CBCT: Dose and Image Quality. 2008 AAPM Mid-Atlantic Chapter Meeting, Richmond, VA, USA. 2008
 10. Lu J; **Zheng D**; Keall P; Weiss E; Bartee C; Williamson JF. Onboard 4D-CBCT Imaging for Lung Cancer Patients. 2008 AAPM Mid-Atlantic Chapter Meeting, Richmond, VA, USA. 2008
 11. Lu J; **Zheng D**; Weiss E; Williamson JF; Keall P. Optimization of a Linac-based 4D Cone-beam CT Acquisition Protocol for Image-guided Radiation Therapy. the 51st ASTRO Annual Meeting; Chicago, IL, USA. 2009
 12. Pokhrel D; Lazos D; Murphy M; Lu J; **Zheng D**; Williamson JF. Morphological Seed Identification and Removal of the Post-Implant Prostate Brachytherapy Patients in Cone-Beam CT Sinogram Projections. the 51st AAPM Annual Meeting; Anaheim, CA, USA. 2009
 13. Lu J; Weiss E; **Zheng D**; Rosu M; Hugo G; Venkat R; Williamson JF; Keall P. Impact of Respiratory Biofeedback On Adaptively Sampled 4D-CBCT Image Quality: Initial Experiences. the 51st AAPM Annual Meeting; Anaheim, CA, USA. 2009
 14. Zhang L; Lazos D; **Zheng D**; Pokhrel D; Williamson JF. Off-Axis Variation of the Varian OBI Photon Spectrum and Impact On Cone-Beam CT Image Quality. the 51st AAPM Annual Meeting; Anaheim, CA, USA. 2009
 15. Altunbas C; **Zheng D**; Weiss E; Williamson JF. The Effect of Daily Cone Beam CT Imaging Dose On the Secondary Cancer Risk for Patients Receiving Prostate IMRT Treatments. the 51st AAPM Annual Meeting; Anaheim, CA, USA. 2009
 16. **Zheng D**; Lazos D; Lu J; Zhang L; Pokhrel D; Williamson JF. The Investigation and Correction of a Bowtie-Related Cone-Beam CT Circular Band Artifact. the 51st AAPM Annual Meeting; Anaheim, CA, USA. 2009
 17. Dogan N; Vile D; **Zheng D**; Weiss E; Lu J; Williamson JF. Incorporation of daily kilovoltage cone beam computed tomography imaging dose into IMRT plan optimization. the 29th ESTRO Annual Meeting; Barcelona, Spain. 2010
 18. Ford J; **Zheng D**; Saleh H; Lu J; Williamson JF. Simultaneous Estimation of Beam Geometry and Radiation/Imaging Isocenter Coincidence in Cone-Beam CT-Guided Radiation Therapy. the 52nd AAPM Annual Meeting; Philadelphia, PA, USA. 2010
 19. **Zheng D**; Gilbert V; Todor D. An Innovative Needle Tip Detection Method for TRUS-Guided Prostate HDR Brachytherapy. the 52nd AAPM Annual Meeting; Philadelphia, PA, USA. 2010

20. Lu J; Brackbill E; **Zheng D**; Weiss E; Hugo G; Keall P; Poulsen P; Fledelius W; Williamson JF. Correlation of Respiration-Induced Motion of an External Surrogate and Implanted Internal Markers. the 53rd AAPM and Annual Meeting; Vancouver, Canada, 2011.
21. Zhou S; Hu E; Chen S; **Zheng D**; Driewer, J; Lin C; Wahl AO; Zhen W; Enke CA. Using Respiratory Invariant Points Obtained From 4D Simulation Study to Provide Accurate Body Setup Correction for Gated Radiation Therapy Patients. the 54th ASTRO Annual Meeting; Boston, MA, USA. 2012
22. Lin C; Lazenby AJ; Bhirud, A.R.; Sehi ED; **Zheng D**. A Dosimetric Analysis of Duodenal Toxicity After Hypofractionated Stereotactic Body Radiotherapy for Pancreatic Cancer. the 55th ASTRO Annual Meeting; Boston, MA, USA. 2013
23. **Zheng D**; Lin C; Bhirud, A.R.; Chen S; Lei Y; Driewer, J; Zhou S. Respiratory-Correlated Duodenum Motion and Its Implications in Pancreatic SBRT. the 55th ASTRO Annual Meeting; Atlanta, GA, USA. 2013
24. Driewer, J; Morgan, B; **Zheng D**; Zhou S. Clinical Dose Response Characterization of the PTW OCTAVIUS Detector 1000 SRS. the 2013 AAPM Spring Clinical Meeting; Phoenix, AZ, USA. 2013
25. **Zheng D**; Zhang, Q; Zhou S. Influence of the normalized prescription isodose line on target dose deficiency for lung SBRT based on Monte Carlo calculation. the 56th AAPM annual meeting; Austin, TX, USA. 2014
26. Zhang, Q; Lei, Y; **Zheng, D**; Morgan, B; Driewer, J.; Zhou S; Zhen W; Thompson RB; Wahl AO; Lin C; Enke CA. A New Variable for Plan Quality Evaluation Based On Normal Tissue Sparing. the 56th AAPM annual meeting; Austin, TX, USA. 2014
27. **Zheng D**; Gan H; Zhen W; Lin C; Driewer, J.; Wahl AO; Zhou S. Is PTV still appropriate for prescription specification in Monte Carlo SBRT lung planning?. the 56th ASTRO Annual Meeting; San Francisco, CA, USA. 2014
28. Gan H; **Zheng D**; Lei Y; Zhang, Q; Li S; Zhou S; Li J; Lin C. Monte Carlo Dose Evaluation for Pancreatic Stereotactic Body Radiation Therapy. the 56th ASTRO Annual Meeting; San Francisco, CA, USA. 2014
29. Zhang, Q; **Zheng D**; Lei Y; Driewer, J.; Morgan, B; Zhang M; Li S; Zhou S; Zhen W; Thompson RB; Wahl AO; Lin C; Enke CA. Dosimetric Effect of Prescription Isodose Line Selection on Normal Tissues in SRS and SRT Treatment Planning. the 56th ASTRO Annual Meeting; San Francisco, CA, USA. 2014
30. Gruhl JD, **Zheng D**, Longo JL, Enke CA, Wahl AO. Analyzing the correlation between pre-treatment rectal fullness and dose received to the rectum when using HDR-VB in women with endometrial cancer; the 57th ASTRO Annual Meeting; San Antonio, TX, USA. 2015
31. Joshua Gruhl, **Dandan Zheng**, Andrew Wahl, John Longo, Charles Enke, Shifeng Chen, Comparing Organ-at-Risk (OAR) Doses for High Dose Rate Vaginal Brachytherapy (HDR-VB) Patients Between Three Different Planning/Delivery Workflows; the 57th ASTRO Annual Meeting; San Antonio, TX, USA. 2015
32. X. Zhu, J. Cai, J. Lian, J. Driewer, S.X. Chang, S. Li, V. Verma, Y. Lei, S. Wang, **D. Zheng**, M. Zhang, Q. Zhang, S. Zhou, C.A. Enke. A Touchless Tool to Improve Gated Radiation Therapy: Thermal Camera Based Breathing Phase Monitoring, the 57th ASTRO Annual Meeting; San Antonio, TX, USA. 2015
33. **D. Zheng**, Q. Zhang, X. Zhu, C. Lin, J. Driewer, A.O. Wahl, W. Zhen, and S. Zhou.

- Which CT set for lung SBRT planning? The effect of varying lung density on Monte Carlo dose calculation, the 57th ASTRO Annual Meeting; San Antonio, TX, USA. 2015
34. **D. Zheng**, X. Zhu, C. Lin, Q. Zhang, Y. Lei, A. O. Wahl, K. Zhen, and S. Zhou A Quantitative Analysis of Factors Affecting the Dose Conversion From pencil beam (PB) to Monte Carlo (MC) in lung SBRT planning, the 57th ASTRO Annual Meeting; San Antonio, TX, USA. 2015
 35. Q Zhang, J Driewer , S Wang , S Li , **D Zheng** , X Zhu , w zhen , a wahl , C Lin , R Thompson , S Zhou , C Enke. Evaluation of the Accuracy of a Six Degree of Freedom Robotic Couch Using ConeBeam CT Images of the Isocal Phantom. the 57th AAPM Annual Meeting; Anaheim, CA, USA. 2015
 36. S Zhou, X Zhu , M Zhang , **D Zheng** , Q Zhang , Y Lei , S Li , J Driewer , S Wang , C Enke. A Novel Approach to Computing Expected Value and Variance of Point Dose From Non-Gated Radiotherapy Delivery. the 57th AAPM Annual Meeting; Anaheim, CA, USA. 2015
 37. **D Zheng**, W Zhen, Y Lei, K Denniston, J Driewer, Q Zhang, X Zhu, S Wang, S Zhou. Imaging-Based ITV May Provide Insufficient Internal Margin for Lung SBRT Patients with Tumor Misalignments Between 3D and 4D Planning CTs. the 57th AAPM Annual Meeting; Anaheim, CA, USA. 2015
 38. X Zhu, J Driewer, Y Lei, **D Zheng**, S Li , T Cullip, S Chang, Q Zhang, M Zhang, S Zhou, Fabricating Cerrobend Grids with 3D Printing for Spatially Modulated Radiation Therapy: A Feasibility Study. the 57th AAPM Annual Meeting; Anaheim, CA, USA. 2015
 39. Y Lei, **D Zheng** , S Wang , X Zhu , Q Zhang , S Li , J Driewer , S Zhou. Gain Calibration Stability Study of a MV Flat-Panel-Detector (FPD) On Siemens ARTISTE Linac. the 57th AAPM Annual Meeting; Anaheim, CA, USA. 2015
 40. S Wang, J Driewer, **D Zheng**, Y Lei, Q Zhang, X Zhu, S Li, C Enke, B Xu, S Zhou, Impact of the LINAC Repetition Rate On a High-Resolution Liquid Ionization Chamber Array for Patient-Specific QA. the 57th AAPM Annual Meeting; Anaheim, CA, USA. 2015
 41. S Zhou, X Zhu, M Zhang, **D Zheng**, Y Lei, Q Zhang , S Li , J Driewer , S Wang , C Enke. Internal Organ Motion Effect On Radiation Dose to a Point Under Half-Beam Block Match Line. the 57th AAPM Annual Meeting; Anaheim, CA, USA. 2015
 42. Q Zhang, Y Lei , **D Zheng** , X Zhu , A Wahl , C Lin , S Zhou , W Zhen. Normal Tissue Dose Effect of Prescription Isodose Level Selection in Lung Stereotactic Body Radiation Therapy. the 57th AAPM Annual Meeting; Anaheim, CA, USA. 2015
 43. J Driewer, M Burchell, Z Fowler, Y Lei, B Morgan, **D Zheng**, S Zhou. Enhancing Radiation Physics Instruction Through Gamification and E-Learning. the 57th AAPM Annual Meeting; Anaheim, CA, USA. 2015
 44. **D Zheng**, X Zhu, Y Lei, S Zhou. Monte Carlo Dose Calculation for Lung SBRT, 2016 AAPM MRV Chapter Meeting, Kansas City, KS, USA. 2016
 45. X Zhu, **D Zheng**, Y Lei, S Zhou. Thermal Imaging Dosimetry for High Dose Rate Brachytherapy Quality Assurance. 2016 AAPM MRV Chapter Meeting, Kansas City, KS, USA. 2016
 46. S Wang, **D Zheng**, W Zhen, Y Lei, X Zhu, X NI, C Enke, S Zhou. Initial Experience with Pinnacle3 Auto-Planning On Field Matching. the 2016 AAPM Spring Clinical Meeting, Salt Lake City, UT, USA. 2016

47. S Wang, **D Zheng**, R Ma, C Lin, X Zhu, Y Lei, C Enke, S Zhou. Automatic Planning as a Potential Strategy for Dose Escalation for Pancreas SBRT? the 58th AAPM Annual Meeting; Washington DC, USA. 2016
48. X Liang, **D Zheng**, X Zhang, G Narayanasamy, S Morrill, J Penagaricano, N Paudel, Z Li. Dosimetric Impacts of Various Uncertainties in Cervical Cancer HDR Brachytherapy: Are Conventional Point Doses Good Surrogates for 3D Dosimetry? the 58th AAPM Annual Meeting; Washington DC, USA. 2016
49. X Zhu, S Li, **D Zheng**, S Wang, Y Lei, M Zhang, R Ma, Q Fan, X Wang, X Li, V Verma, C Enke, S Zhou. Automated Output Factor Measurements Using Continuous Data Logging for Linac Commissioning. the 58th AAPM Annual Meeting; Washington DC, USA. 2016
50. X Zhu, Y Lei, **D Zheng**, S Li, V Verma, M Zhang, S Chang, H Song, C Enke, S Zhou. Thermal Imaging in Source Visualization and Radioactivity Measurement for High Dose Rate Brachytherapy. the 58th AAPM Annual Meeting; Washington DC, USA. 2016
51. S Zhou, Q Wu, Q Fan, Y Lei, S Li, X Li, R Ma, S Wang, X Wang, **D Zheng**, X Zhu, C Enke. Using Generalized Mean for Equivalent Square Estimation. the 58th AAPM Annual Meeting; Washington DC, USA. 2016
52. S Zhou, Q Wu, Q Fan, Y Lei, S Li, X Li, R Ma, S Wang, X Wang, **D Zheng**, X Zhu, C Enke. Universal Function Form for Photon Open Field In-Water Output Ratio. the 58th AAPM Annual Meeting; Washington DC, USA. 2016
53. Y Lei, X Zhu, **D Zheng**, S Li, R Ma, M Zhang, Q Fan, X Wang, V Verma, X Tang, S Zhou. A Feasibility Study of Integrating Breathing Audio Signal with Surface Surrogates for Respiratory Motion Management. the 58th AAPM Annual Meeting; Washington DC, USA. 2016
54. R Ma, X Zhu, S Li, **D Zheng**, Y Lei, S Wang, V Verma, N Bennion, A Wahl, S Zhou. A Statistical Analysis Tool for Plan Quality Verification in HDR Brachytherapy Forward Planning for Cervix Cancer. the 58th AAPM Annual Meeting; Washington DC, USA. 2016
55. S. Wang, C. Zhang, **D. Zheng**, R. Ma, X. Zhu, N.R. Bennion, Y. Lei, C.A. Enke, S. Zhou. Automatic Volumetric Modulated Arc Therapy (VMAT) Planning on Hippocampal Avoidance Whole-Brain Radiation Therapy. the 58th ASTRO Annual Meeting; Boston, MA, USA. 2016
56. R. Ma, **D. Zheng**, S. Wang, X. Zhu, N.R. Bennion, C.A. Enke, S. Zhou, A.O. Wahl. Analysis of Air Cavity Volume Change in Balloon-based High-Dose-Rate Accelerated Partial Breast Irradiation. the 58th ASTRO Annual Meeting; Boston, MA, USA. 2016
57. **D Zheng**, Does Intensity Modulation Increase Heterogeneity-Induced Dose Calculation Error Over Conformal Treatments for Lung SBRT? the 2017 AAPM Spring Clinical Meeting, New Orleans, LA, USA. 2017
58. C Zhou, N Bennion, R Ma, X Liang, S Wang, K Zvolanek, M Hyun, S Zhou, W Zhen, C Lin, A Wahl, **D Zheng**. A Comprehensive Clinical Study On Switching From Type-B to Type-C Dose Algorithms for Modern Lung SBRT. the 2017 AAPM Spring Clinical Meeting, New Orleans, LA, USA. 2017
59. **D Zheng**, S Wang, C Zhang, Q Fan, V Verma, R Ma, S Zhou, A Comparison Between Flattening-Filter-Free and Flattenedmodes for LINAC-Based Trigeminal Neuralgia SRS. 2017 AAPM Annual Meeting, Denver, CO, USA. 2017
60. R Ma, S Zhou, B Lu, D Zheng, G Yan, Y Lei, Q Fan, Ultra-Fast SRS Planning for

- Trigeminal Neuralgia Using Quadratic Optimization. 2017 AAPM Annual Meeting, Denver, CO, USA. 2017
61. X Liang, J Bradley , D Zheng, S Flampouri, M Ho, Z Li, Impact of Proton Pencil Beam Spot Size On Breast Plan Quality. 2017 AAPM Annual Meeting, Denver, CO, USA. 2017
 62. S Zhou, D Zheng , S Wang , Q Fan , X Wang , C Enke, Incorporating Patient Random Irregular Respiratory Motion Effect Into Radiotherapy Dose Calculation. 2017 AAPM Annual Meeting, Denver, CO, USA. 2017
 63. Yu L, Jiang H, Yu H, Zhang C, Mcallister J, **Zheng D.** iVAR: Interactive Visual Analytics of Radiomics Features from Large-Scale Medical Images. 2017 IEEE International Conference on Big Data (Big Data). 2017
 64. S. Zhou, **D. Zheng**, S. Wang, Q. Fan, X. Wang, C.A. Enkem, A Tool for Characterizing Randomness and Irregularity in Patient Respiratory Motion. 2017 ASTRO Annual Meeting. 2017.
 65. **Dandan Zheng**, Shuo Wang, Qian Du, Xiaoying Liang, Chi Zhang, Chi Zhang, Qiyong Fan, Rongtao Ma, Vivek Verma, and Sumin Zhou, Impacts of Anatomical Features on Dosimetry and Outcome of Trigeminal Neuralgia Stereotactic Radiosurgery. 2017 Radiosurgery Society Annual Meeting. Las Vegas, NV, USA. 2017.
 66. Shuo Wang, Chi Lin, **Dandan Zheng**, Rongtao Ma, Sumin Zhou. Density override on GTV dose difference between pencil beam and Monte Carlo. 2017 Radiosurgery Society Annual Meeting. Las Vegas, NV, USA. 2017.
 67. A Smith, S Zhou , A Wahl , **D Zheng** , S Wang , Y Lei , Q Fan, "Evaluation of the Applicator Library Modelling Based Planning for Tandem and Ring HDR Treatment of Cervical Cancer", 2018 AAPM Annual Meeting, Nashville, TN, USA. 2018
 68. S Wang, A Smith , J Ryckman , M Baine , **D Zheng** , Y Lei , C Zhang , N Bennion , Q Fan , C Lin , C Enke , S Zhou, "Deep Neural Network-Based Modeling of Radiation Pneumonitis Following Lung Stereotactic Body Radiotherapy", 2018 AAPM Annual Meeting, Nashville, TN, USA. 2018
 69. S Zhou, **D Zheng** , S Wang , Q Fan , M Hyun , Y Lei , C Enke, "Proton Dose Repainting Strategies with Target Respiratory Motion: A Theoretical Approach", 2018 AAPM Annual Meeting, Nashville, TN, USA. 2018
 70. Y Lei, A Granatowicz, T Diener, A Smith, S Wang, **D Zheng**, M Hyun, Q Fan, C Enke, A Wahl, C Zhang, N Bennion, S Zhou, "Applying Two RapidPlan Models Trained On Different Techniques and MLC-Types to IMRT Plans: A Dosimetric Evaluation", 2018 AAPM Annual Meeting, Nashville, TN, USA. 2018
 71. A Smith, M Hyun , **D Zheng**, "Clinical Implementation of Single-Source, Dual-Energy CT Simulation in Radiotherapy", 2018 AAPM Annual Meeting, Nashville, TN, USA. 2018
 72. **D Zheng**, M Baine, C Zhang, Q Du, X Liang, A Kamal, H Yu, "Radiomics-Based Outcome Prediction Model Development For Pancreatic Cancer", 2018 AAPM Annual Meeting, Nashville, TN, USA. 2018

73. **D Zheng**, X Liang, A Smith, T Diener, Q Fan, M Hyun, S Wang, Y Lei, S Li, S Zhou, The Effect of Dose Calculation Algorithms On Lung SBRT Optimization and Plan Quality Scoring, 2018 AAPM Annual Meeting, Nashville, TN, USA. 2018
74. X Liang, **D Zheng**, M Mamalui-hunter, S Flampouri, B Hoppe, N Mendenhall, Z Li, "PTV Vs. ITV Based VMAT Plan On Stereotactic Body Radiotherapy of Lung Tumors: Is PTV a Good Surrogate of Setup Uncertainties for Planning?", 2018 AAPM Annual Meeting, Nashville, TN, USA. 2018
75. **D Zheng**, J McAllister, Michael Baine, "A Robustness of radiomic features against breathing motion for small lung tumors", 2018 ASTRO Annual Meeting, San Antonio, TX, USA. 2018
76. G Han, Y Li, Y Wu, J Bi, Y Li, **D Zheng**, C Xie, D Hu, "The effect of induction chemotherapy on tumor volume changes in patients with locoregionally advanced nasopharyngeal carcinoma", 2019 ASCO Annual Meeting, Chicago, IL, USA. 2019
77. A Smith, A Granatowicz, C Stoltenberg, S Wang, X Liang, C Enke, A Wahl, S Zhou, and **D Zheng**, "Can the Student Outperform the Master? A plan comparison between Pinnacle Auto-Planning and Eclipse knowledge-based RapidPlan using a quantitative plan quality metric", 2019 AAPM Spring Clinical Meeting, Orlando FL, USA. 2019
78. Q Fan, **D Zheng**, S Wang, C Lin, C Enke, S Zhou, "A Semi-2D TG-43 Formula for Accurate In-House Verification of High-Dose-Rate Brachytherapy Dose Calculation", 2019 AAPM Annual Meeting, San Antonio, TX, USA. 2019
79. X Liang, J A Bradley, R Mailhot Vega, M Rutenberg, **D Zheng**, N Getman, K W Norton, N Mendenhall, Z Li, "Using Robust Optimization for Skin Flashing in Intensity-Modulated Radiotherapy for Breast Cancer Treatment", 2019 AAPM Annual Meeting, San Antonio, TX, USA. 2019
80. Q Fan, **D Zheng**, S Zhou, "Development of a Unified Education Framework for Medical Physics Residency", 2019 AAPM Annual Meeting, San Antonio, TX, USA. 2019
81. S Zhou, **D Zheng**, S Wang, Q Fan, L Yu, A Besemer, C Zhou, C Enke, "Minimum Required Dose Rate for FLASH RT: A Dimensional Analysis", 2019 AAPM Annual Meeting, San Antonio, TX, USA. 2019
82. G Han, L Yang, H Deng, H Li, D Yu, G Ma, J Bi, D Li, W Wei, D Hu, **D Zheng**, X Zhou, "Hyperpolarized ¹²⁹Xe Gas MRI Pulmonary Ventilation Imaging-Based Functional Avoidance for Lung Cancer Radiotherapy", 2019 ASTRO Annual Meeting, Chicago, IL, USA. 2019
83. S. Zhou, Y. Yan, **D. Zheng**, S. Wang, Q. Fan, A. E. Besemer, C. Zhou, and C. A. Enke, "A Modified Lethal and Potentially Lethal Model for Ultra-High Dose Rate FLASH RT", 2019 ASTRO Annual Meeting, Chicago, IL, USA. 2019
84. S Wisnoskie, A Wahl, N Bennion, A Granatowicz, X Liang, S Zhou, **D Zheng**, "ECOMP planning for whole breast RT", 2020 AAPM MRV Chapter meeting, Omaha, NE 2020
85. **D Zheng**, M Baine, Q Du, C Zhang, C Lin, S Zhou, "Radiomics for Personalized Cancer Care", 2020 Midwest Radiation Oncology Symposium, Omaha, NE, 2020

86. M Baine, **D Zheng**, “Prognostic Abilities of Advanced Radiomics Analysis and Prostate Adenocarcinoma”, 2020 Midwest Radiation Oncology Symposium, Omaha, NE, 2020
87. S Zhou, **D Zheng**, Q Fan, Y Yan, S Wang, Y Lei, A Besemer, C Zhou, C Enke, Minimum Dose Rate Required by FLASH Radiotherapy (RT), 2020 Midwest Radiation Oncology Symposium, Omaha, NE, 2020
88. S Wang, **D Zheng**, Y Lei, S Zhou, C Enke, “Automated Treatment Planning in Personalized Medicine”, 2020 Midwest Radiation Oncology Symposium, Omaha, NE, 2020
89. S Zhou, **D Zheng**, Y Yan, S Wang, A Besemer, C Zhou, C Enke, “Impact of Radiation-Induced Oxygen Depletion On Cell Survival in Ultra-Short Pulsed Cell Irradiation at Low Repetition Rate”, 2020 AAPM Annual Meeting, Virtual
90. **D Zheng**, Y Shi, E Wahle, L Krajewski, X Liang, Q Du, C Zhang, S Zhou, M Baine, “Using Radiomics to Study Statin Use and Omega-3 Use in Prostate Cancer Patients”, 2020 AAPM Annual Meeting, Virtual
91. C Liu, **D Zheng**, J Bradley, R Mailhot Vega, Z Li, N Mendenhall, X Liang, “Gamma Testing Results On MC Vs PB Algorithms On Intensity-Modulated Proton Therapy for Breast Cancer Treatment”, 2020 AAPM Annual Meeting, Virtual
92. S Zhou*, **D Zheng**, Y Yan, S Wang, A Besemer, C Zhou, C Enke, “Modeling FLASH RT Effect for Ultra-Short Pulsed Cell Irradiation at High Repetition Rates”
93. S Wisnoskie, **D Zheng**, A Wahl, N Bennion, A Granatowicz, X Liang, S Zhou, “Possible to Treat with Lower Energy? Tangential Whole Breast Irradiation with Electronic Tissue Compensation Technique”, 2020 AAPM Annual Meeting, Virtual
94. S Wisnoskie, A Wahl, N Bennion, A Granatowicz, X Liang, S Zhou, **D Zheng** “Using Flattening Filter Free (FFF) Beams in Electronic Tissue Compensation (ECOMP) Whole Breast Irradiation with Deep Inspiration Breath Hold (DIBH) for Left Sided Breast Cancer”, 2020 AAPM Annual Meeting, Virtual
95. S Wisnoskie, A Wahl, N Bennion, A Granatowicz, X Liang, S Zhou, **D Zheng** “Validation the Robustness of Breast Intensity-Modulated Proton Plans Against Setup Errors”, 2020 AAPM Annual Meeting, Virtual
96. X Liang, **D Zheng**, R Mailhot Vega, Z Li, N Mendenhall, J Bradley, “Validation the Robustness of Breast Intensity-Modulated Proton Plans Against Setup Errors”, 2020 AAPM Annual Meeting, Virtual
97. J. Y. Wong, C. Lin, M. Baine, N. R. Bennion, L. Yu, D. Zheng, D. Vipin, M. A. Hollingsworth, S. M. Zhou, and **D. Zheng**, “Quantifying Radiomic Feature Robustness Due to Interobserver Variation in Pancreatic Cancer”, 2020 ASTRO Annual Meeting, Virtual
98. J. Burr, Q. Du, L. Zima, G. Rux, C. Zhang, M. Baine, and **D. Zheng**, “The potential use of radiomics with pre-radiation therapy MR imaging in predicting risk of pseudoprogression in glioblastoma patients”, 2020 ASTRO Annual Meeting, Virtual

99. E. Parr, Q. Du, C. Zhang, C. Lin, A. Kamal, J. McAlister, X. Liang, K. Bavitz, G. Rux, M. A. Hollingsworth, M. Baine, and **D. Zheng**, “Radiomics based survival and recurrence prediction for pancreatic cancer following stereotactic body radiotherapy”, 2020 ASTRO Annual Meeting, Virtual.
100. Sumin Zhou, Ying Yan, **Dandan Zheng**, Shuo Wang, Sarah Wisnoskie, Donald Umstadter. "Radiation Cell Survival Fraction After a FLASH Radiation Pulse", 2021 AAPM Annual Meeting, Virtual
101. M Hyun*, A Besemer, S Wisnoskie, Y Lei, S Li, D Schott, S Wang, **D Zheng**, J Koth, L Bartenhagen, “Development of a Flipped-Classroom Style Medical Physics Course for Radiation Therapist Students”, 2021 AAPM Annual Meeting, Virtual
102. S. M. Zhou, Y. Yan, **D. Zheng**, S. Wang, S. B. Wisnoskie, and D. Umstadter, A Modified Lethal and Potentially Lethal Model With Explicit Oxygen Tension Dependence for FLASH RT, 2021 ASTRO Annual Meeting, Chicago, IL
103. H. Yu, S. Dai, T. Gao, H. Du, C. Zhang, **D. Zheng**, “Exploring Impact of Segmentation Uncertainty on CT-based Radiomics for Pancreatic Cancer”, the AAPM Practical Big Data Workshop 2021. Virtual
104. **D. Zheng**, C. Zhang, M.Baine, H.Du, H.Yu, P.Grandgenet, M.Hollinsworth. “RadioGWAS: A novel genome-wide association study to link genome to image radiomics for pancreatic cancer and metastasis”. the AAPM Practical Big Data Workshop 2021. Virtual
105. M Ashenafi, K Aujla, D Zheng*, Commission a 3D Printed Applicator System for Skin Brachytherapy Treatment, 2022 AAPM Annual Meeting, Washington DC
106. A Besemer^{1*}, J Wong¹, S Wang¹, M Hyun¹, S Wisnoskie¹, D Schott¹, D Zheng^{1,2}, Y Lei^{1,3}, K Gallagher¹, S Hendley¹, Are We Improving? The Learning Curve for Implementing Intraoperative Ultrasound-Guided Prostate High Dose Rate (HDR) Brachytherapy, 2022 AAPM Annual Meeting, Washington DC
107. O Dona Lemus*, D Zheng, M Pacella, M Cummings, H Qiu, N Joyce, M Webster, H Jung, J Yoon, N Burns, E Hagenbach, R Badzinski, S Tanny, A Study On Monitor Unit (MU) Variability Over Adaptive Treatment Courses for CBCT-Guided Online Adaptive Radiation Therapy, 2022 AAPM Annual Meeting, Washington DC
108. J Yoon^{1*}, H Jung¹, D Zheng¹, I Yeo², Electronic Portal Imaging Device (EPID) Modeling in EGSnrc/DOSXYZnrc with Effective Atomic Number Scaling, 2022 AAPM Annual Meeting, Washington DC
109. J Yoon*, H Jung, M Milano, K Usuki, S Hardy, D Zheng, Phantom Evaluation of Dose Calculation Accuracy Comparing BrainLab and Eclipse Treatment Planning Systems (TPS) for Brain Stereotactic Radiosurgery (SRS) with Simulation and Film Dosimetry, 2022 AAPM Annual Meeting, Washington DC
110. H Jung*, J Yoon, M Milano, K Usuki, S Hardy, D Zheng, Dosimetric Evaluation of Two Modern Planning Techniques for Single-Isocenter, Multiple Brain Metastases

Fractionated-Stereotactic Radiosurgery with >20 Lesions, 2022 AAPM Annual Meeting, Washington DC

111. D Zheng*, H Jung, M Milano, K Usuki, S Hardy, S Tanny, J Yoon, Calculated Target Dose Differences for Brain Stereotactic Radiosurgery (SRS) Between Two Advanced Dose Algorithms, 2022 AAPM Annual Meeting, Washington DC
112. O Dona Lemus*, S Tanny, M Cummings, M Pacella, N Joyce, M Webster, H Jung, J Yoon, N Burns, R Nucci, E Hagenbach, D Zheng, Influence of Abdominopelvic Air Pockets in the Dosimetric Accuracy of Online Pelvic Adaptive Radiation Therapy, 2022 AAPM Annual Meeting, Washington DC
113. K Osterman1*, D Zheng2*, M Hyun3*, S Langer4*, M Hyun5*, S Langer6*, Ethics and AI in Radiology and Radiation Oncology, 2022 AAPM Annual Meeting, Washington DC
114. D Zheng, et al, RGWAS: A novel genome-wide association study to link genomics to radiomics for pancreatic cancer, 2022 ASTRO Annual Meeting
115. Matthew J. Webster, PhD, Olga M. Dona Lemus, PhD, Sean M. Tanny, PhD, Joshua Wancura, PhD, Gukan Sakthivel, MD, Louis Constine, MD and Dandan Zheng, PhD, Case Study: Total Body Irradiation for a Patient with a Left Ventricular Assist Device, 2023 AAPM Annual Meeting
116. Michael Ashenafi, MS, Celestia Rothfuss, Dandan Zheng, PhD and Hong Zhang, MD. Dosimetric Benefits of 3D-Printed Modulated Electron Bolus for Radiation Treatment of Gynecomastia, 2023 AAPM Annual Meeting
117. Hyunuk Jung, PhD1, Jihyung Yoon, PhD2 and Dandan Zheng, PhD. Dosimetric Comparison between Single-Isocenter and Two-Isocenter Dca SRS Plans for Multiple Brain Metastases, 2023 AAPM Annual Meeting
118. Joshua Wancura, PhD1, Jihyung Yoon, PhD2, Sean M. Tanny, PhD1, Neil Joyce, MS1, Matthew J. Webster, PhD1, Hyunuk Jung, PhD1, Olga M. Dona Lemus, PhD1, Matthew A. Pacella, MS1 and Dandan Zheng, PhD1. Dosimetric Impact of Attenuation through Support Devices for Cranial Masks, 2023 AAPM Annual Meeting
119. Joshua Wancura, PhD1, Olga M. Dona Lemus, PhD1, Nathan T Jones, MS1, Sean M. Tanny, PhD1, Jihyung Yoon, PhD2, Matthew J. Webster, PhD1, Matthew A. Pacella, MS1, Louis Constine, MD1 and Dandan Zheng, PhD. Exploring the Feasibility and Validity of Using an Extended Body Contour Calculation for No-Bolus Scalp VMAT Treatment, 2023 AAPM Annual Meeting
120. Tianjie Shu1, Alyssa Cai1, Jihyung Yoon, PhD2, Hyunuk Jung, PhD3, Michael Milano, MD, PhD4 and Dandan Zheng, PhD. SRS Planning with a Larger Margin When Using Earlier MRI: A Small-Cohort Feasibility Test, 2023 AAPM Annual Meeting
121. Jihyung Yoon, Hyunuk Jung, Sean M. Tanny, Olga M. Dona Lemus, Yuwei Zhou, Michael Milano, Sara Hardy, Kenneth Usuki, and Dandan Zheng, "Evaluation of

Advanced Dose Calculation Algorithms for Brain Stereotactic Radiosurgery: Dose Calculation Accuracy with Mlc Modeling”, 2024 AAPM Annual Meeting

122. Fiona Li, PhD, MS, BS, Olga M. Dona Lemus, PhD, Sean M. Tanny, PhD, Matthew J. Webster, PhD, Joshua Wancura, PhD, Yuwei Zhou, Alexander R Podgorsak, PhD, Hyunuk Jung, PhD, Jihyung Yoon, PhD, Wesley Rivaïs, MS and Dandan Zheng, PhD, "Ethos CBCT Online Adaptive Radiotherapy Workflow on Patients with Metal Implants" , 2024 AAPM Annual Meeting
123. Wesley Rivaïs, MS1, Dandan Zheng, PhD1, Matthew A. Pacella, MS1, Louis S. Constine, MD1, Maimuna Nagey2, Jihyung Yoon, PhD1, Hyunuk Jung, PhD1, Sean M. Tanny, PhD1 and Olga M. Dona Lemus, PhD, "Truebeam Vs. Halcyon: Fetal Dose Sparing for a Pregnant Sarcoma Patient Receiving VMAT" , 2024 AAPM Annual Meeting
124. Wesley Rivaïs, MS, Timothy M. Barry, MS, Dandan Zheng, PhD and Matthew A. Pacella, MS, "A Comparison of Two Different Portal Dosimetry Models on Six Matched Truebeams" , 2024 AAPM Annual Meeting
125. Hyunuk Jung, PhD, Jihyung Yoon, PhD, Yuwei Zhou, Michael Milano, MD, PhD, Kenneth Usuki, MD, Sara Hardy, MD, Olga M. Dona Lemus, PhD, Sean M. Tanny, PhD, Matthew J. Webster, PhD, Alexander R Podgorsak, PhD, Fiona Li, PhD, MS, BS, Matthew A. Pacella, MS and Dandan Zheng, PhD, "Dosimetric Evaluation of a New Hybrid Planning Technique for Single-Isocenter Multi-Target Stereotactic Radiosurgery with a Large Cavity" , 2024 AAPM Annual Meeting
126. M. A. Cummings, H. Zhang, K. C. Bylund, D. Zheng, O. Dona Lemus, and S. Tanny, “Clinical and Dosimetric Outcomes of Patients Who Received Daily-Adaptive Post-Prostatectomy Salvage Radiation”, 2024 ASTRO Annual Meeting
127. Dandan Zheng, Sean Tanny, Olga Dona Lemus, Michael Cummings, Neil Joyce, Erika Hagenbach, Hong Zhang, Matthew Pacella, Kevin Bylund, Fiona Li, Yuhchayau Chen, “Failure Modes and Root Cause Analysis for CBCT-Guided Online Adaptive Radiotherapy of the Pelvis”, 2024 ASTRO Annual Meeting
128. M Ashenafi, D Zheng, 3D-Printed Sizing Cylinders for HDR Endometrial Cancer Brachytherapy: Feasibility, Selection Accuracy, and Consistency, 2024 ABS world congress
129. H Jung, J Yoon, Y Zhou, MT Milano, K Usuki, D Zheng, Evaluating a Novel Hybrid Planning Technique for Complex Cases in LINAC-Based Stereotactic Radiosurgery, 2025 RSS
130. Y Zhou, S Tanny, D Zheng, MT Milano, B Marples, Exploring the Feasibility and Potential of Spatially Fractionated Radiotherapy for Treating Glioblastoma Multiforme (GBM), 2025 RSS

131. Alex Schick, Sara Hardy, Myla Strawderman, Dandan Zheng, Michael Cummings, Michael Milano, Allison Magnuson, Jacqueline Behr, Sarah Sammons, Kenneth Usuki, Nimish Mohile, Ruth O'Regan, Carey Anders, David Hicks, Lauryn Hemminger, Ajay Dhakal, Systemic Disease Impacts CNS Disease Control After SRS in Patients with Breast Cancer Brain Metastases (P1-6.006), 2025 American Academy of Neurology Annual Meeting.