Jing Wang, Ph.D., DABR

Division of Medical Physics and Engineering
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Education and Training

07/2007-12/2009	Postdoctoral Fellow, Department of Radiation Oncology, Stanford University,
	Stanford, CA
01/2007-06/2007	Research Associate, Department of Radiology, State University of New York at
	Sony Brook, Stony Brook, NY
09/2001-12/2006	Ph. D. in Physics
	State University of New York at Stony Brook, Stony Brook, NY, USA
09/2001-05/2003	M. A. in Physics
	State University of New York at Stony Brook, Stony Brook, NY, USA
09/1997-07/2001	B.S. in Materials Physics
	University of Science and Technology of China, Hefei, Anhui, China

Professional Experience

08/2019-present	Director of Data Analytics and Informatics, Department of Radiation Oncology,
	The University of Texas Southwestern Medical Center, Dallas, TX
09/2016-present	Associate Professor (with Tenure), Department of Radiation Oncology, The
	University of Texas Southwestern Medical Center, Dallas, TX
09/2016-present	Associate Professor, Biomedical Engineering Graduate Program, The University
	of Texas Southwestern Medical Center, Dallas, TX
03/2016-08/2019	Co-Director of Research and Education, Division of and Medical Physics and
	Engineering, The University of Texas Southwestern Medical Center, Dallas, TX
09/2015-06/2022	Director of CAMPEP-accredited Postdoc Certificate Program in Medical Physics,
	The University of Texas Southwestern Medical Center, Dallas, TX
09/2014-8/2016	Adjunct Assistant Professor, Department of Bioengineering, The University of
	Texas at Dallas
07/2013-8/2016	Assistant Professor, Biomedical Engineering Graduate Program, The University
	of Texas Southwestern Medical Center, Dallas, TX
02/2012-present	Member of Harold C. Simmons Cancer Center, The University of Texas
	Southwestern Medical Center, Dallas, TX
01/2010-8/2016	Assistant Professor (Tenure-Track), Department of Radiation Oncology, The
	University of Texas Southwestern Medical Center, Dallas, TX

Certification

05/2011-present	American Board of Radiology, Certified in Therapeutic Medical Physics, P5012
01/2010-present	Licensed Medical Physicist, State of Texas, MP10386
03/2015	Gamma Knife Training at UPMC

Honors and Awards

2022	Top 10% cited paper Published in Medical Physics in 2020-2021
2020	Roberts' Prize for best paper published in the journal Physics in Medicine and Biology in 2019
2020	Top 10% downloaded paper published in Medical Physics in 2018-2019
2013	American Cancer Society Research Scholar
2012	CPRIT Individual Investigator Research Award
2008	AAPM Annual Meeting Travel Award, ASTRO
2008	John S. Laughlin Science Council Research Symposium, AAPM
2008	Prostate Cancer Training Award, Department of Defense
2007	ASTRO Annual Meeting Travel Award, ASTRO
2006	Research Access Program Travel Grant, SUNY at Stony Brook
2005	Peter B. Kahn Fellowship, SUNY at Stony Brook
1999	Outstanding Student Scholarship, USTC
1998	Zhen Xiong Industry Scholarship, USTC

Research Grants

1. NIH 1R01CA251792 (PI: Jing Wang/David Sher)

NIH National Cancer Institute

Title: "A Multifaceted Radiomics Model to Predict Cervical Lymph Node Metastasis for

Involved Nodal Radiation Therapy" Period: 07/01/2022 – 06/30/2027

Role: Contact PI

Direct Cost: \$1,517,228 Total Cost: \$2,488,252

Effort: 25%

2. NIH R15 HL150708 (PI: Mingwu Jin)

NIH National Heart Lung, and Blood Institute

Title: "Attenuation correction strategies for myocardial perfusion imaging using dual-gated

SPECT"

Period: 08/05/2020 – 07/31/2023

Role: subcontract PI

Effort: 4% Year 1 and 9% Year 2

3. NIH R01 CA240808 (PI: You Zhang)

NIH National Cancer Institute

Title: "Accurate 4D Liver Tumor Localization for Radiotherapy using Contrast-Agent-Free X-

ray Imaging and Liver Biomechanical Modeling"

Period: 06/01/2020-05/31/2024

Role: Co-I Effort: 10%

4. NIH R01 EB027898 (PI: Jing Wang/Raquibul Hannan)

NIH National Institute of Biomedical Imaging and Bioengineering

Title: "Real-time prostate lesion tracking during SBRT"

Period: 05/01/2019 – 01/31/2023

Role: Contact PI

Direct Cost: \$1,043,740 Total Cost: \$1,427,514

Effort: 15%

5. Simons Cancer Center NCI Grant Stimulus Funding Program (PI: Jing Wang)

Title: "Stratify High-Risk Cervical Cancer Patients through Multifaceted Radiomics"

Period: 12/01/2020-11/30/2021

Role: PI

6. Varian Inc. (PI: Steve Jiang/Jing Wang/Atlas Wang)

Title "CT Image Synthesis from CBCT Images with Artifacts and Truncations for Adaptive Replanning via Deep Learning"

Period: 08/01/2019-7/31/2021

Role: Co-PI

7. Cancer Prevention and Research Institute of Texas, RP160661 (Overall PI: Steve Jiang/ Project 5 PI: Jing Wang)

Multi-Investigator Research Award

Title: "Towards Carbon Beam Stereotactic Body Radiation Therapy (C-SBRT) for Higher Risk

Early Stage Lung Cancer"

Period: 08/31/2016 – 08/30/2023

Role: PI for Project 5 Titled "Real-time volumetric imaging and dose reconstruction for carbon

beam SBRT"

Direct Cost for Overall Project: \$3,898,705 Total Cost: \$4,103,894 Direct Cost for Project 5: \$918,190 Total Cost: \$966,516

Effort: 18.5%

8. NIH R01 EB020366 (PI: Jing Wang)

NIH National Institute of Biomedical Imaging and Bioengineering

Title: "Next generation 4D-CBCT for lung cancer radiation therapy"

Period: 01/15/2015 – 12/31/2019

Role: PI

Direct Cost: \$900,000 Total Cost: \$1,439,797

Effort: 23%

9. American Cancer Society, RSG-16-004-01-CCE (PI: Raquibul Hannan)

Research Scholar Grant

Title: "Image-Guided Stereotactic Radiation Therapy of Primary Renal Cancer"

Period: 07/01/2016 – 06/30/2020

Role: Co-Investigator

Effort: 5%

10. Department Seed Grant, (PI: David Sher/Jing Wang)

Title: "Mid-treatment PET-CT to Predict Locoregional Control in Head and Neck Squamous

Cell Carcinoma"

Period: 12/01/2018-11/30/2019

Role: Co-PI

11. Cancer Prevention and Research Institute of Texas, RP110562-p2 (PI: Lei Dong/Peter

Balter/Jinzhong Yang)

Multi-Investigator Research Award

Title: "Advanced Volumetric Imaging and Adaptive Radiotherapy for Detecting and Correcting

for Inter-fractional Changes" Period: 07/01/2011 - 6/30/2018 Role: PI for UTSW Subcontract

Direct Cost of UTSW Subcontract: \$539,804 Total Cost: \$568,737

Effort: 20%

12. NIH R03 EB021600 (PI: Mingwu Jin)

NIH National Institute of Biomedical Imaging and Bioengineering

Title: "Recovery of true scatter in blocked regions for blocker-based scatter correction of

CBCT"

Period: 06/10/2016 – 04/30/2018

Role: subcontract PI

Effort: 3%

13. Elekta Ltd, 104773 (PI: Jing Wang)

Title: "Advanced Applications of Four-Dimensional Cone-beam CT"

Period: 03/01/2014 – 06/30/2017

Role: PI Effort: 3%

14. American Cancer Society, RSG-13-326-01-CCE (PI: Jing Wang)

Research Scholar Grant

Title: "High Quality Low-dose CBCT for Image-Guided and Adaptive Radiation Therapy"

Period: 07/01/2013 - 06/30/2017

Role: PI

Direct Cost: \$439,000 Total Cost: \$527,000

Effort: 20%

15. Cancer Prevention and Research Institute of Texas, RP130109 (PI: Jing Wang)

Individual Investigator Research Award

Title: "Quantitative Cone-beam CT for Adaptive Radiation Therapy"

Period: 06/01/2013 – 5/31/2017

Role: PI

Direct Cost: \$642,329 Total Cost: \$676,134

Effort: 30%

16. American Cancer Society, ACS-IRG-02-196 (PI: Jing Wang)

Institutional Research Grant

Title:" Enhancement of four-dimension cone-beam computed tomography for radiation therapy

of lung cancer"

Period: 01/01/2011-12/31/2011

Role: PI

Direct cost: \$30,000

17. Elekta Ltd, 900555 (PI: Timothy Solberg)

Title: "Applications of Image Guided Therapy"

Period: 01/01/2010 -03/31/13

Role: Co-investigator

Effort: 10%

18. Department of Defense, W81XWH-08-1-0127 (PI: Jing Wang)

Prostate Cancer Research Program

Title: "Accurate and Fast Localization of Prostate for External Beam Radiation Therapy"

Period: 02/15/2008 – 02/14/2010

Role: PI

Direct cost: \$115,000

Grant Review Activities

2022	American Cancer Society (ACS) Clinical Study and Clinical Trials Study Section
2022	AI reviewer for Radiation Oncology Institute (ROI) Leveraging Artificial
	Intelligence for Radiation Oncology
2021	NIH NCI P01 Review Panel
2021	NIH Clinical Data Management and Analysis study section (CDMA)
2020	Belgian Foundation against Cancer
2020	DoD CDMRP Peer Reviewed Medical Research Program for Hydrocephalus
	Panel
2019	Pilot Grant Reviewer for UTSW Kidney Cancer Program
2017-present	ASTRO Junio Faculty Award and Seed Grant Program
2017-present	RSNA Radiation Oncology Research Study Section
2016	DoD Discovery Panel-Acute Lung Injury Discovery Award (ALI-DA)
2016	Swiss National Science Foundation (SNSF), Div. Mathematics, Physical and
	Engineering Sciences
2015-2021	DoD Lung Cancer Research Program –Detection, Diagnosis and Prognosis Panel
2015	NIH Special Emphasis Panel - NIAID Centers for Medical Countermeasures
	against Radiation Consortium (U19) Review Panel, ZAI1-PA-I-M2
2014	DoD Lung Cancer Research Program - Mechanism, Detection and Prognosis
	Panel
2014	NIH Biomedical Imaging Technology Study Section (BMIT-B)
2013	NIH Special Emphasis Panel - Small Business Innovation Research (SBIR) and
	Small Business Technology Transfer (STTR) for Radiation Therapy and Biology
	Study Section, ZRG1 OTC-R(11)
2013	NIH Special Emphasis Panel - Clinical and Translational Imaging Applications,
	ZRG1 DTCS-A (81) S

Editorial Activities

2021-	Associate Editor for British Journal of Radiology AI and Machine Learning
2014-	Associate Editor for Journal of Applied Clinical Medical Physics
2012-	Guest Associate Editor for Medical Physics

Journal and Conference Reviewer

2021	Pacific Symposium on Biocomputing
2020-	IEEE International Symposium on Biomedical Imaging (ISBI)
2020-	IEEE International Conference on Signal Processing
2020-	Computer Methods and Programs in Biomedicine
2019-	IEEE International Conference on Biomedical and Health Informatics (BHI)
2019-	IEEE Journal of Biomedical and Health Informatics

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2019-	Computers in Biology and Medicine
2018-	Radiotherapy and Oncology
2016-	IEEE Access
2015-	IEEE Transactions on Computational Imaging
2015-	IEEE Transactions on Biomedical Engineering
2015-	PLoS One
2015-	British Journal of Radiology
2015-	Technology in Cancer Research & Treatment
2014-	Computer Methods and Programs in Biomedicine
2014-	International Journal of Radiation Oncology, Biology, Physics
2013-	International Journal of Computer Assisted Radiology and Surgery
2013-	AAPM Annual Meeting
2012-	E-Journal of Advanced Maintenance
2011	Malaysian Journal of Medical Sciences
2010-	Physics in Medicine and Biology
2010	Imaging in Medicine
2010-	Medical Dosimetry
2010-	Physica Medica: European Journal of Medical Physics
2009-	Journal of X-ray Science and Technology
2009-	Medical and Biological Engineering and Computing
2008-	Medical Physics
2007-	IEEE Medical Imaging Conference
2006-	IEEE Transactions on Medical Imaging
2006-	IEEE Transactions on Imaging Processing
2006-	IEEE Transactions on Nuclear Science

Committee Services

National or International

2022	Scientific Committee, 7 th International Conference on Image Formation in X-Ray
	Computed Tomography (CT Meeting), Baltimore, MD
2021	Lead Discussant, Global Forum on Medical Physics Education (Virtual), Hong
	Kong Polytechnic University
2021	Moderator, AAPM Annual Meeting, Image-Guided Treatment Response
	Modeling and Assessment
2021-present	AAPM Imaging for Treatment Assessment Work Group (WGITA)
2020	Scientific Committee, 6 th International Conference on Image Formation in X-Ray
	Computed Tomography (CT Meeting), Regensburg, Germany
2019-present	AAPM Imaging for Treatment Planning Work Group
2017	Moderator, 4D Imaging, AAPM Annual Meeting, Denver CO
2017-present	ASTRO Science Education and Program Development Subcommittee
2017-present	ASTRO Research Grants Evaluation Subcommittee
2017	Scientific Committee, 2017 International Conference on Fully Three-Dimensional
	Image Reconstruction in Radiology and Nuclear Medicine (Fully 3D 2017), Xi'an,
	China
2016	Moderator, Image Processing/Segmentation/Registration/CAD, AAPM Annual
	Meeting, Washington DC
2016	Scientific Committee, 4 th International Conference on Image Formation in X-Ray
	Computed Tomography (CT Meeting), Bamberg, Germany

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2015 2014	Moderator, Cone-Beam CT, AAPM Annual Meeting, Anaheim, CA Moderator, Cone-Beam CT, AAPM Annual Meeting, Austin, TX
2014	Moderator, Real-Time Imaging and Tracking, AAPM Annual Meeting, Austin, TX
Institutional:	
2020-present	Clinical and Translational Research (CTR) Committee, Department of Radiation Oncology, UT Southwestern Medical Center
2019-present	UTSW Postdoctoral Advisory Committee
2019	UTSW Medical School Admission Interviewer
2017	Departmental Research Working Group
2018-present	Committee on Membership in the Graduate School Faculty at UT Southwestern
2016, 2018	Interviewer with MSTP candidates, UTSW
2015-present	UTSW Graduate School Admission Interviewer
2016-present	Physics Leader of Disease site-specific team: GU, Department of Radiation Oncology, UT Southwestern Medical Center
2012-2016	Disease site-specific team: GU, Department of Radiation Oncology, UT Southwestern Medical Center
2015-present	Disease site-specific team: CNS, Department of Radiation Oncology, UT Southwestern Medical Center
2013-present	Disease site-specific team: Head & Neck, Department of Radiation Oncology, UT Southwestern Medical Center
2012-present	Disease site-specific team: Lung, Department of Radiation Oncology, UT Southwestern Medical Center
2011	Departmental strategic research committee, Department of Radiation Oncology, UT Southwestern Medical Center
2010	Departmental working group on the use of OBI and CBCT, Department of Radiation Oncology, UT Southwestern Medical Center

Professional Societies

2008-present	American Association of Physicists in Medicine (AAPM)
2012-present	American Society for Radiation Oncology (ASTRO)

Invited Ta

nvited Talks	
2022	Seminar, "Artificial Intelligence for Clinical Decision Support in Radiation
	Therapy", Stony Brook University
2022	AAPM Annual Meeting, "Treatment response and outcome prediction for head and neck cancer adaptive radiation therapy using pre- and during-treatment
	imaging" Washington DC
2021	Seminar, "Artificial Intelligence for Clinical Decision Support in Radiation
	Therapy", Mayo Clinic
2021	Seminar, "Artificial Intelligence for Clinical Decision Support in Radiation
	Therapy", Hong Kong Polytechnic University
2021	Seminar, "Artificial Intelligence for Clinical Decision Support in Radiation
	Therapy", Emory University
2020, 2021	Invited Lecture, "Artificial Intelligence in Radiation Therapy", Department of
	Bioengineering, UT Dallas, TX

2019	SIAM TX-LA Sectional Meeting, "A multifaceted radiomics model for outcome prediction after radiation therapy", Dallas, TX
2019	Seminar, "Artificial Intelligence in Radiation Therapy", Gannan Normal
2019	University, Ganzhou, China Seminar, "Artificial Intelligence in Radiation Oncology", School of Biomedical
2019	Engineering, Southern Medical University, Guangzhou, China AAPM Annual Meeting, "On-board CBCT for Treatment Verification", SAM Session on Passent Advances in Imaging for Treatment Verification, San Antonia
2019	Session on Recent Advances in Imaging for Treatment Verification, San Antonio AAPM Annual Meeting, "Multifaceted Radiomics Models for Treatment Outcome Prediction", SAM Session on Integrating Radiomics and Genomics for Personalized Cancer Therapy in the Era of AI and Big Data, San Antonio
2019	SWAAPM Chapter Meeting, "Artificial intelligence in Radiation Oncology", Little Rock, AR
2019	Symposium, "Radiomics and Artificial Intelligence in Radiation Therapy", 2019 Radiation Research Society Meeting, San Diego, CA
2019	Elekta Summit on Precision Radiation Medicine, "Flexibility of using Gamma Knife Icon for fractionated, distributed, and staged treatments", Suzhou, China
2018	Medical Physics Research Webinar, "Deep Learning for Radiation Oncology", Department of Radiation Oncology, Stanford University
2018	International Symposium on Ion Therapy (ISIT) 2018, "Machine learning for ion therapy", Saga, Japan
2018	Seminar, "Quantitative Imaging and Artificial Intelligence in Radiation Oncology", School of Automation, Huazhong University of Science and Technology, Wuhan China
2018	12 th Jinan International Radiation Oncology Forum, "Artificial Intelligence in Radiation Oncology", Jinan, Shandong, China
2017	Hamon Center Cancer Center Experimental Therapeutics Program Lecture, "Quantitative Imaging for Treatment Outcome Prediction in Lung Cancer", Hamon Cancer Center, UTSW
2017	Seminar, "Quantitative Imaging for Adaptive Radiation Therapy", Department of Bioengineering, University of Texas at Arlington
2017	Seminar, "Quantitative Imaging for Adaptive Radiation Therapy", Department of Biomedical Engineering, FMMU, Xi'an China
2017	Seminar, "Quantitative Imaging for Adaptive Radiation Therapy", Department of Radiation Oncology, University of Pennsylvania
2017	SWAAPM Chapter Meeting, "Radiomics-based approaches for treatment outcome prediction in radiation oncology", Fort Worth, TX
2015	International Workshop on Interactive and Spatial Computing, UT Dallas
2015	Seminar, "Optimizing CBCT for IGRT", Suzhou Institute of Biomedical Engineering and Technology
2015	Workshop, "Recent development in adaptive radiotherapy", Southern Medical University, Guangzhou, China
2013	Seminar, "Quantitative cone-beam CT for adaptive radiation therapy", School of Biomedical Engineering, Shanghai Jiao Tong University, Shanghai, China
2013	Seminar, "Cone-beam CT for image-guided and adaptive radiotherapy", Shenzhen Institute of Advanced Technology of Chinese Academy of Science, Shenzhen, China

2013	Seminar, "Optimizing cone-beam CT for image-guided radiotherapy",
	Department of Biomedical Engineering, Southern Medical University,
	Guangzhou, China
2013	Seminar, "Optimizing cone-beam CT for image-guided radiotherapy",
	Department of Radiation Oncology, Emory University
2013	Colloquium, "Cone-beam CT for image-guided radiation therapy", Department of
	Physics, University of Texas at Arlington
2010	Seminar, "A moving blocker system for scatter correction in cone-beam CT",
	Department of Radiation Oncology, University of California at San Diego

Teaching

Dissertation Committees:

2022-	Ph.D. Dissertation Committee Chair for Elizabeth Polsdofer, Biomedical
	Engineering Graduate Program, UTSW
2021-	Ph.D. Dissertation Committee Chair for Jace Grandinetti, Biomedical
	Engineering Graduate Program, UTSW
2019-2022	Ph.D. Dissertation Committee Member for Lin Ma, Biomedical Engineering
	Graduate Program, UTSW
2020-	Ph.D. Dissertation Committee Member for Xiao Liang, Biomedical Engineering
	Graduate Program, UTSW
2020-	Ph.D. Dissertation Committee Member for Zi Yang, Biomedical Engineering
	Graduate Program, UTSW
2018-2021	Ph.D. Dissertation Committee Chair for Anjali Balagopal, Biomedical
	Engineering Graduate Program, UTSW
2018-2021	Ph.D. Dissertation Committee Chair for Yesenia Gonzalez, Biomedical
	Engineering Graduate Program, UTSW
2018-2022	Ph.D. Dissertation Committee Member for Elizabeth Polsdofer, Biomedical
	Engineering Graduate Program, UTSW
2015-2018	Dissertation committee for Cong Zhao, Department of Physics, University of
	Texas at Arlington

Qualifying Examination Committees:

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2021	Exam I Committee Chair for Sorour Hosseini, Biomedical Engineering Graduate
	Program, UTSW
2021	Exam I Committee Chair for Yin Gao, Biomedical Engineering Graduate
	Program, UTSW
2020	Exam I Committee member for Xiao Liang, Biomedical Engineering Graduate
	Program, UTSW
2019	Exam I Committee Chair for <u>Jace Grandinetti</u> , Biomedical Engineering Graduate
	Program, UTSW
2019	BME Exam I committee member for Zi Yang, Biomedical Engineering Graduate
	Program, UTSW
2019	Exam I Committee Chair for Anjali Balagopal, Biomedical Engineering Graduate
	Program, UTSW
2019	BME Exam I committee member for Lin Ma, Biomedical Engineering Graduate
	Program, UTSW
2018	Exam I Committee Chair for Yesenia Gonzalez, Biomedical Engineering
	Graduate Program, UTSW

2014	BME Exam I committee for <u>Xinzeng Wang</u> , Biomedical Engineering Graduate Program, UTSW
Courses:	
2021	Lecturer, NIH Grant Application Workshop, Department Radiation Oncology, UTSW
2019-2020	Lecture, MRI course for Radiation Therapy Program
2019-	Lecturer for Elekta Gamma Knife Training Course at UTSW
2018	Lecturer, Machine Learning and Artificial Intelligence in Medicine, UTSW
2017-	Discussant for Graduate School Responsible Conduct of Research course
2015-2022	Director of Postdoc Certificate Program in Medical Physics (Lead to CAMPEP accreditation in 2018)
2015-	Course Director (2015-2022) and Lecturer, Radiation Therapy Physics, Certificate
2014-	Program in Medical Physics, Department of Radiation Oncology, UTSW Course Director (2015-2022) and Lecturer, Fundamentals of Imaging in Medicine, Certificate Program in Medical Physics, Department of Radiation Oncology,
2014-	UTSW Course Director (2015-2022) and Lecturer, Radiation Protection and Safety, Certificate Program in Medical Physics, Department of Radiation Oncology, UTSW
2013-2017	Organizer, Bi-weekly Journal Club, Department of Radiation Oncology, UTSW
2013-	Course Director (2015-2022) and Lecturer, Radiological Physics and Radiation Dosimetry, Certificate Program in Medical Physics, Department of Radiation Oncology, UTSW
2010-	Lecturer, Imaging for Radiation Therapy, for Medical Residents at Department of Radiation Oncology, UTSW
2008	Instructor, Image-guided Radiation Therapy (IGRT) short course Department of Radiation Oncology, Stanford University

Trainee Supervision

Postdoctoral Fellows

- 1. Roshan Timilsina, Ph.D., Department of Radiation Oncology, University of Texas Southwestern Medical Center, January 2021 August 2021 (Position after training: certificate program at Purdue University and Medical Physics Resident, Florida Proton Center)
- 2. <u>Meysam Tavakoli</u>, Ph.D., Department of Radiation Oncology, University of Texas Southwestern Medical Center, June 2020 June 2021 (Position after training: Medical Physics Resident, Department of Radiation Oncology, UPMC)
- 3. <u>Tao Peng</u>, Ph.D., Department of Radiation Oncology, University of Texas Southwestern Medical Center, September 2020 –
- 4. <u>Deepak Shrestha</u>, Ph.D., Department of Radiation Oncology, University of Texas Southwestern Medical Center, May 2015 June 2019 (Position after training: Medical Physics Resident, Department of Radiation Oncology, UTSW)
- Zhiguo Zhou, Ph.D., Department of Radiation Oncology, University of Texas Southwestern Medical Center, November 2014- August 2019 (Position after Training, Assistant Professor, Department of Computer Science, University of Central Missouri)
 Media report: https://physicsworld.com/a/multifaceted-radiomics-predicts-cancer-metastasis-
- 6. <u>Liyuan Chen</u>, Ph.D., Department of Radiation Oncology, University of Texas Southwestern Medical Center, January 2016- June 2020 (Position after training: Medical Physics Resident, Department of Radiation Oncology, UTSW)

Won Roberts' Prize for best paper published in the journal Physics in Medicine and Biology in 2019 as a co-first author

Media report: https://physicsworld.com/a/hybrid-machine-learning-tool-spots-malignant-lymph-nodes/

- 7. <u>Alfonso Rodriguez</u>, Ph.D., Department of Radiation Oncology, University of Texas Southwestern Medical Center, July 2016- June 2017 (Position after training: Medical Physicist Billings Clinic, Montana)
 - Won third place of young investigator symposium at SWAAPM meeting (2017)
- 8. <u>Shanzhou Niu</u>, Ph.D., Department of Radiation Oncology, University of Texas Southwestern Medical Center, December 2015-April 2018 (Position after training: Assistant Professor at Gannan Normal University, China)
- 9. <u>You Zhang</u>, Ph.D., Department of Radiation Oncology, University of Texas Southwestern Medical Center, July 2015- June 2016 (Position after training: Assistant Professor at UT Southwestern Medical Center)
 - AAPM Young Investigator Symposium Finalist (2016) -- 10 top-rated abstracts from 393 submissions.
 - Won ASTRO abstract award on Basic/Translational Science Junior Investigator Radiation Physics in the Physics category (2016) -- 11 top-rated basic and translational abstracts in clinical practice, radiation and cancer biology, and radiation physics.
- 10. <u>Faraz Kalantari</u>, Ph.D., Department of Radiation Oncology, University of Texas Southwestern Medical Center, September 2014- June 2017 (Position after training, Medical Physics Resident, Department of Radiation Oncology, UTSW)
- 11. <u>Joubin Nasehi Tehrani</u>, Ph.D., Department of Radiation Oncology, University of Texas Southwestern Medical Center, January 2014- June 2016, (Position after training: Medical Physics Resident at University of Virginia)
- 12. <u>Zichun Zhong</u>, Ph.D., Department of Radiation Oncology, University of Texas Southwestern Medical Center, August 2014- August 2015(Position after training: Assistant Professor at Wayne State University)
- 13. <u>David Staub</u>, Ph.D., (co-supervise with Dr. Steve Jiang), Department of Radiation Oncology, University of Texas Southwestern Medical Center, January 2014- May 2015 (Position after training: Data Scientist at Argyle Data)
- 14. <u>Jun Dang</u>, Ph.D., Department of Radiation Oncology, University of Texas Southwestern Medical Center, October 2012- December 2014 (Position after training: Zhejiang University, China)
- 15. Zhiliang Li, Ph.D., Department of Radiation Oncology, University of Texas Southwestern Medical Center, June 2011- February 2012 (Position after training: Engineer at American Bureau of Shipping)

Ph.D. Dissertation Students

- 1. Dissertation advisor of <u>Kai Wang</u>, Biomedical Engineering Graduate Program, University of Texas Southwestern Medical Center, January 2019-present
- 2. Dissertation advisor of <u>Xiaokun Huang</u>, Biomedical Engineering Graduate Program, University of Texas Southwestern Medical Center, June 2015-June 2020 (Position after training: Medical Physics Resident, Department of Radiation Oncology, Northwestern Memorial Hospital)
- 3. Dissertation advisor of <u>Luo Ouyang</u>, Radiological Sciences Graduate Program, University of Texas Southwestern Medical Center, January 2010-May 2014 (Position after training: Medical Physics Resident, Department of Radiation Oncology, UTSW)

- 1. <u>Shanshan Tang</u>, Instructor, Department of Radiation Oncology, University of Texas Southwestern Medical Center, July 2022-
- 2. <u>Benjuan Yang</u>, Visiting Assistant Professor, School of Mathematics Science, Guizhou Normal University, Guizhou, China, January 2019 January 2020
- 3. <u>Rongfang Wang</u>, Visiting Assistant Professor, School of Computer Science and Technology, Xidian University, Xi'an, China, August 2018- August 2020
- 4. <u>Shulong Li</u>, Visiting Assistant Professor, Department of Biomedical Engineering, Southern Medical University, Guangzhou, China, July 2016-October, 2017
- 5. <u>Hongxia Hao</u>, Ph.D., Visiting Assistant Professor, School of Computer Science and Technology, Xidian University, Xi'an, China, March 2016- September, 2017
- 6. <u>Yuncheng Zhong</u>, Ph.D., Instructor, (co-supervise with Dr. Yiping Shao), Department of Radiation Oncology, University of Texas Southwestern Medical Center, November 2015- July 2018
- 7. <u>Xi Chen</u>, Ph.D., Visiting Assistant Professor, Department of Radiation Oncology, University of Texas Southwestern Medical Center, April 2015- April 2017
- 8. <u>Bin Li</u>, Visiting Assistant Professor, Department of Biomedical Engineering, Southern Medical University, Guangzhou, China, December 2014-August 2015
- 9. <u>Qingwen Lyu</u>, Visiting Assistant Professor, Department of Biomedical Engineering, Southern Medical University, Guangzhou, China, December 2014-Febuary 2015

Visiting Graduate Students

- 1. <u>Hua Zhang</u>, Department of Biomedical Engineering, Southern Medical University, Guangzhou, China, April 2013-April 2014
- 2. Cong Zhao, Department of Physics, University of Texas at Arlington, May 2014 August 2014

Graduate Rotation Students

- 1. <u>Aixa Andrade Hernandez</u>, Biomedical Engineering Graduate Program, University of Texas Southwestern Medical Center, August 2021-October 2021
- 2. <u>Sorour Hosseini</u>, Biomedical Engineering Graduate Program, University of Texas Southwestern Medical Center, August 2020-October 2020
- 3. <u>Xiao Liang</u>, Biomedical Engineering Graduate Program, University of Texas Southwestern Medical Center, October 2018-December 2018
- 4. <u>Kai Wang</u>, Biomedical Engineering Graduate Program, University of Texas Southwestern Medical Center, August 2018-October 2018
- 5. <u>Yesenia Gonzalez</u>, Biomedical Engineering Graduate Program, University of Texas Southwestern Medical Center, October 2016-December 2016
- 6. <u>Xiaokun Huang</u>, Biomedical Engineering Graduate Program, University of Texas Southwestern Medical Center, March 2015-May 2015

Medical Residents and Students

- 1. <u>Allen Yen</u>, M.D., Resident, Department of Radiation Oncology, University of Texas Southwestern Medical Center, July 2021- June 2022 (Research Year, co-supervise with Dr. Kevin Albuquerque)
- 2. <u>Howard Morgan</u>, M.D., Resident, Department of Radiation Oncology, University of Texas Southwestern Medical Center, July 2020- June 2021 (Research Year)
- 3. <u>Michael Dohopolski</u>, M.D., Resident, Department of Radiation Oncology, University of Texas Southwestern Medical Center, September 2018- (The B. Leonard Holman Research Pathway)
- 4. <u>Avanka Lowe</u>, M.D., Resident, Department of Radiology, University of Texas Southwestern Medical Center, October 2019-July 2021

5. <u>William Chance</u>, Medical Student, University of Texas Southwestern Medical Center, Summer, 2010

Clinical Service

2016- Lead Physicist of GU DOT2015-present Gamma Knife Clinical Physics

2010-2012 Weekly chart check

2011-2017 Oversee CT simulators, monthly QA, develop QA procedures

Patents

1. **J. Wang** and L. Xing, "Accurate determination of the shape and localization of metallic object(s) in X-ray CT imaging", issued on 7/30/2013, Patent No. 8498465 (Stanford Office of Technology Licensing, Disclosure# S09-061, 2009)

Publications

Book Chapters

- 1. **J. Wang**, L. Chen, M. Dohopolski, and D. Sher, "Chapter 3.6: Lymph node malignancy classification for head and neck cancer radiation therapy", in Machine Learning in Clinical Radiation Oncology: A Guide for Clinicians, Elsevier, to appear
- 2. Y. Zhang, W. Harris, **J. Wang** and L. Ren, "Chapter 22: Virtual CT for Abdominal IGRT", in Principle and Practice of Image-guided Abdominal Radiation Therapy, Institute of Physics Publishing
- 3. Y. Zhang, **J. Wang** and X. Jia, "Chapter 13: Uncertainties of IGRT for Abdominal Cancer Radiotherapy", in Principle and Practice of Image-guided Abdominal Radiation Therapy, Institute of Physics Publishing
- 4. Y. Zhang, and **J. Wang**, "Chapter 64: Kilovoltage and Megavoltage radiotherapy imaging devices", in Handbook of X-ray Imaging: Physics and Technology, CRC Press, 2017
- 5. L. Ren, M. Descovich, and **J. Wang**, "Chapter 15: Advances in Verification and Delivery Techniques", in Principles and Practice of Image-Guided Radiation Therapy of Lung Cancer, Taylor & Francis Books, Inc., 2017

Peer-reviewed Journal Papers (as senior author denoted by*)

- 1. D. Wood, S. Cetinkaya, H. Gangammanavar, W. Lu, and **J. Wang**, On the Value of a Multistage Optimization Approach for Intensity-Modulated Radiation Therapy Planning, *Physics in Medicine and Biology*, 2022
- 2. H. Shao, L. Li, M. Dohopolski, **J. Wang**, J. Cai, J. Tan, K. Wang, and Y. Zhang, Real-Time MRI Motion Estimation through an Unsupervised K-Space-Driven Deformable Registration Network (KS-RegNet), *Physics in Medicine and Biology*, 2022
- 3. R. Hannan, M. Dohopolski, L. Pop, S. Mannala, L. Watumull, D. Mathews, A. Gao, A. Garant, Y. Arriaga, K. Ariizumi, I. Bowman, J. Chung, **J. Wang**, C. Ahn, R. Timmerman, K. Courtney, Phase II Trial of Sipuleucel-T and Stereotactic Ablative Body Radiation for Patients with Metastatic Castrate-resistant Prostate Cancer, *Biomedicines*, 2022
- 4. R. Wang, J. Guo, Z. Zhou, K. Wang, S. Gou, B. Xu, D. Sher, and **J. Wang***, Locoregional Recurrence Prediction in Head & Neck Cancer Based on Multi-modality and Multi-view Feature Expansion, *Physics in Medicine and Biology*, 2022

- 5. H. Shao, **J. Wang**, T. Bai, J. Chun, C. Park, S. Jiang, and Y. Zhang, Real-time Liver Tumor Localization via a Single X-ray Projection Using Deep Graph Neural Network-assisted Biomechanical Modeling, *Physics in Medicine and Biology*, 2022
- 6. M. Dohopolski, K. Wang, H. Morgan, D. Sher and **J. Wang***, Use of Deep Learning to predict the need for aggressive nutritional supplementation during head and neck radiotherapy, *Radiotherapy and Oncology*, 2022
- 7. T. Peng, C. Wang, D. Xu, Y. Zhang and **J. Wang***, H-SegNet: hybrid segmentation network for lung segmentation in chest radiographs using mask region-based convolutional neural network and adaptive closed polyline searching method, *Physics in Medicine and Biology*, 2022
- 8. T. Peng, Y. Gu, Z. Ye, X. Cheng, and **J. Wang***, A-LugSeg: Automatic and Explainability-Guided Multi-Site Lung Detection in Chest X-ray images, *Expert Systems with Applications*, 2022
- 9. J. Chun, J C. Park, S. Olberg, Y. Zhang, D. Nguyen, **J. Wang**, J S Kim, S Jiang, Intentional Deep Overfit Learning (IDOL): A Novel Deep Learning Strategy for Adaptive Radiation Therapy, *Medical Physics*, 2021
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Conference Proceeding Articles

- 1. H. Shao, **J. Wang** and Y. Zhang, Real-time Liver Tumor Localization via a Single X-ray Projection Using Deep Graph Network-assisted Biomechanical Modeling, *Seventh International Conference on Image Formation in X-Ray Computed Tomography*, 2022 (**Oral** presentation)
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- 5. K. Wang, **J. Wang**, and Y. Shao, Enabling High-Resolution (~2 mm or better) Brain Imaging with a Standard Clinical Whole-Body PET: A Simulation Study, *IEEE Nuclear Science Symposium and Medical Imaging Conference Record*, 2021
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- 12. Z. Zhou, G. Maquilan, K. Thomas, M. Folkert, K. Albuquerque, and **J. Wang**, Predicting distant failure after radiotherapy in cervix cancer via automated multi-objective model, 19th *International Conference on the Use of Computers in Radiation Therapy (ICCR)*, 2019 (**Oral** Presentation)
- 13. X. Huang, L. Chen, and **J. Wang**, U-net based deformation vector field estimation for motion-compensated 4D-CBCT reconstruction, 19th *International Conference on the Use of Computers in Radiation Therapy (ICCR)*, 2019 (**Oral** Presentation)
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- 15. Z. Zhou, L. Chen, D. Sher, Q. Zhang, J. Shah, N-L. Pham, S. Jiang and **J. Wang**, Predicting Lymph Node Metastasis in Head and Neck Cancer by Combining Many-Objective Radiomics and 3-Dimensioal Convolutional Neural Network through Evidential Reasoning, *International Conference of the IEEE Engineering in Medicine and Biology Society (EMBC)*, pp. 3709-3712, 2018 (**Oral** presentation)
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- 65. **J. Wang**, A. Chai, and L. Xing, "Noise correlation in CBCT projection data and its application for noise reduction in low-dose CBCT", *Proc. SPIE Medical Imaging*, vol. 7258, pp. 72582D, 2009
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Conference Abstracts:

- 1. H. Shao, T. Mengke, H. Chen, J. Wang, and Y. Zhang, Deep Learning-Driven Real-Time Liver Tumor Localization Via Optical Surface Imaging and Biomechanical Modeling, *ASTRO Annual Meeting*, 2022 (**Oral** Presentation, **Best of Physics** session)
- 2. M. Dohopolski, K. Wang, H. Morgan, D. Sher, and **J. Wang**, Using prediction uncertainty estimates to identify more reliable predictions for a deep learning model that predicts the need for early feeding tube placement, *ASTRO Annual Meeting*, 2022
- 3. M. Dohopolski, K. Wang, H. Morgan, D. Sher, and **J. Wang**, Using radiomics to improve the diagnostic accuracy of indeterminate residual primary disease on restaging PET/CT imaging following radiation therapy for head and neck cancers, *ASTRO Annual Meeting*, 2022 (Oral)
- 4. K. Wang, A. Elamir, J. Karalis, S. Enrico, P. Polanco, T. Aguilera, M. Ligorio, and **J Wang**, Delta Radiomic Features Predict Failure and Survival Outcomes for Surgically Resected Pancreatic Cancer Patients Treated with Neoadjuvant Therapy, *AAPM Annual Meeting*, 2022 (Oral)
- 5. T. Peng, K. Wang, M. Dohopolski, H. Shao, Y. Zhang, **J. Wang** Lymph Node Segmentation Via Deep Feature Boosting Network in Head and Neck CT Images, *AAPM Annual Meeting*, 2022 (E-Poster)
- 6. H. Shao, T. Bai, **J. Wang**, J. Chun, J. Park, S. Jiang, Y. Zhang Real-Time Liver Tumor Localization Via a Single X-Ray Projection Using Graph Neural Network and Deep Learning-Based Biomechanical Modeling (MeshRegNet-Bio), *AAPM Annual Meeting*, 2022 (Interactive E-Poster)
- 7. H. Shao, T. Li, M. Dohopolski1, J. Wang, J. Cai, J. Tan, K. Wang, Y. Zhang, Comprehensive Evaluation of a Real-Time 3D MR Imaging Technique Using a Deformation-Driven Deep Convolutional Neural Network (KS-RegNet), *AAPM Annual Meeting*, 2022 (Oral)

- 8. K. Wang, A. Andrade, M. Dohopolski, **J. Wang**, Predicting Radiotherapy Induced Anatomic Change for Head Neck Cancer Patients Using Vision Transformer, *AAPM Annual Meeting*, 2022 (E-Poster)
- 9. H. E. Morgan, K. Wang, M. Dohopolski, X. Liang, M. R. Folkert, D. J. Sher, and **J. Wang**, Explainable Boosting Machine Model With a Parallel Ensemble Design Predicts Local Failure for Head and Neck Cancer With Clinical, CT, and Delta CBCT Radiomic Features, *ASTRO Annual Meeting*, 2021
- 10. A. Yen, H. E. Morgan, K. Wang, K. V. Albuquerque, and **J. Wang**, Interpretable Machine Learning Model Supported by Parallel Ensemble Learning to Predict Local Recurrence for Patients With Cervical Cancer, *ASTRO Annual Meeting*, 2021
- 11. M. Dohopolski, K. Wang, H. E. Morgan, L. Chen, D. J. Sher, and **J. Wang**, Predicting Feeding Tube Placement in Head and Neck Cancer Patients Receiving Radiation Therapy With Machine Learning, *ASTRO Annual Meeting*, 2021
- 12. D. J. Sher, V. Avkshtol, D. Moon, **J. Wang**, L. Chen, M. Dohopolski, R. Hughes, and D. T. Vo, Recurrence and Quality-of-Life Following Involved Node Radiotherapy for Head and Neck Squamous Cell Carcinoma: Initial Results from the Phase II INRT-Air Trial, *ASTRO Annual Meeting*, 2021
- 13. K Wang, H Shao, Y Zhang, **J Wang**, Gas Bubble Motion Artifact Reduction Through Simultaneous Motion Estimation and Image Reconstruction, *AAPM Annual Meeting*, 2021 (Interactive e-poster)
- 14. H Shao, X Huang, M Folkert, **J Wang**, Y Zhang, Automatic Liver Tumor Localization Using a Combined Deep Learning and Biomechanical Model (DL-Bio), *AAPM Annual Meeting*, 2021 (**Interactive e-poster**)
- 15. J Chun, J Park, S Olberg, Y Zhang, D Nguyen, **J Wang**, J Kim, S Jiang, Intentional Deep Overfit Learning (IDOL): A Novel Deep Learning Strategy for Adaptive Radiation Therapy, *AAPM Annual Meeting*, 2021 (John R. Cameron Early-Career Investigator Symposium FINALIST)
- 16. L Chen, K Wang, C Shen, D Sher, **J Wang**, A Bilateral Neural Network for Loco-Regional Recurrence Prediction in Head and Neck Squamous Cell Cancer, *AAPM Annual Meeting*, 2021 (**Oral**)
- 17. S Olberg, J Chun, K Wang, **J Wang**, Y Zhang, J Kim, S Jiang, J Park, CBCT Air Artifact Reduction Using a Simulation-Based Image Translation Model, *AAPM Annual Meeting*, 2021 (Interactive e-poster)
- 18. K Wang, L Chen, N George-Jones, J Hunter, **J Wang**, Attention Guided Network for Vestibular Schwannoma Growth Prediction, *AAPM Annual Meeting*, 2021 (**Interactive e-poster**)
- 19. J Guo, R Wang, Z Zhou, K Wang, R Xu, **J Wang**, Predicting Locoregional Recurrence Through Multi-Modality and Multi-View Deep Learning for in Head & Neck Cancer, *AAPM Annual Meeting*, 2021 (**Oral**)
- 20. J Chun, X Liang, M Lin, D Nguyen, Y Zhang, J Wang, S Jiang, J Kim, J Park, Intentional Deep Overfit Learning (IDOL): An Application to CBCT-Based Auto-Contouring, *AAPM Annual Meeting*, 2021
- 21. Z Zhou, L Chen, M Dohopolski, D Sher, **J Wang**, Predicting Lymph Node Metastasis Through Automated and Reliable Multi-Objective Model in Head & Neck Cancer, *AAPM Annual Meeting*, 2021
- 22. L. Liu, **J. Wang**, and S. Tan, DCT-Based Generative Adversarial Network for Low Dose CT Reconstruction, *AAPM Annual Meeting*, 2020

- 23. L. Chen, M. Dohopolski, Z. Zhou, K. Wang, R. Wang, D. Sher, **J. Wang**, Attention Guided Lymph Node Malignancy Prediction in Head and Neck Cancer, *AAPM Annual Meeting*, 2020 (**Oral**)
- 24. X. Huang, **J. Wang**, and Y. Zhang, Automatic On-Board Liver Tumor Localization by Cone-Beam Projections and a Deformation-Driven Technique (U-Net-Bio), *AAPM Annual Meeting*, 2020 (**Oral**)
- 25. A. Qasem, G. Qin, **J. Wang**, and Z. Zhou, Automatic Tumor Segmentation in Digital Breast Tomosynthesis Using U-Net, *AAPM Annual Meeting*, 2020
- 26. K. Wang, Z. Zhou, L. Chen, R. Wang, D. Sher, and **J. Wang**, Head Neck Cancer Locoregional Recurrence Prediction Using Delta-Radiomics Feature, *AAPM Annual Meeting*, 2020
- 27. K. Wang, L. Chen, N. George-jones, J. Hunter, and **J. Wang**, Combining Radiomics and Convolutional Neural Network to Predict Tumor Growth of Vestibular Schwannoma, *AAPM Annual Meeting*, 2020 (Blue Ribbon ePoster)
- 28. R. Wang, Y. Zhang, P. Pachnis, H. Vu, K. Wang, R. Deberardinis, and **J. Wang**, Deciphering Metabolic Features to Target Neuroblastoma Using Machine Learning, *AAPM Annual Meeting*, 2020 (**Oral**)
- 29. S. Zhou, Y. Chi, **J. Wang**, M. Jin, Pursuit of Efficient Image Domain Motion Estimation for G-SMEIR, *AAPM Annual Meeting*, 2020
- 30. S. Zhou, Y. Chi, **J. Wang**, M. Jin, Development and Evaluation of General Simultaneous Motion Estimation and Image Reconstruction (G-SMEIR), *AAPM Annual Meeting*, 2020
- 31. L. Chen, M. Dohopolski, Z. Zhou, K. Wang, R. Wang, D. Sher, and **J. Wang** Segmentation Guided Classification Scheme for Lymph Node Malignancy Prediction in Head and Neck Cancer, *ASRTO Annual Meeting*, 2020
- 32. Y. Zhang, X. Huang, and **J. Wang**, Automatic cone beam projection-based liver tumor localization by deep learning and biomechanical modeling, *ASRTO Annual Meeting*, 2020 (**Oral** presentation)
- 33. M. Dohopolski, L. Chen, D. Sher, **J. Wang**, Predicting Lymph Node Metastasis in Patients with Oropharyngeal Cancer by Convolutional Neural Networks with associated Epistemic Uncertainty, *ASRTO Annual Meeting*, 2019 (**Mini-Oral** presentation)
- 34. Z Zhou, M Dohopolski, L Chen, X Chen, S Jiang, D Sher, **J Wang**, AutoMO: An Automated Multi-Objective Model for Reliably Predicting Lymph Node Metastasis in Head & Neck Cancer, *AAPM Annual Meeting*, 2019 (**Snap Oral**)
- 35. Y Zhang, Z Iqbal, C Shen, C Wang, S Jiang, **J Wang**, Dynamic MRI Reconstruction Using Simultaneous K-Space-Driven Motion Estimation and Compensation (SK-MEC), *AAPM Annual Meeting*, 2019 (**Oral**)
- 36. Z Zhou, K Wang, H Liu, D Sher, **J Wang**, Multifaceted Radiomics: Towards More Reliable Radiomics for Predicting Distant Metastasis in Head & Neck Cancer, *AAPM Annual Meeting*, 2019 (**Oral**)
- 37. X Chen, Z Zhou, R Hannan, K Thomas, P Kapur, J Brugarolas, I Pedrosa, **J Wang**, A Reliable Multi-Classifier Multi-Objective Model for Predicting Gene Mutation in Clear Cell Renal Cell Carcinoma, *AAPM Annual Meeting*, 2019 (**Snap Oral**)
- 38. R Wang, Y Weng, Z Zhou, L Chen, **J Wang**, Multi-Objective Ensemble Deep Learning for Predicting Outcome After Lung Cancer Radiotherapy Using Electronic Health Records, *AAPM Annual Meeting*, 2019 (**Oral**)
- 39. L Chen, X Liang, C Shen, S Jiang, J Wang, Intelligent Synthetic CT Generation Based On CBCT Images Via Unsupervised Deep Learning, AAPM Annual Meeting, 2019 (E-Poster Campus Discussion)

- 40. L Chen, S Fisher, A Rodriguez, M Folkert, A Chhabra, S Jiang, **J Wang**, Musculoskeletal Tumor Classification On T2-Weighted MRI Using Probability Fusion Convolutional Neural Network and Support Vector Machine, *AAPM Annual Meeting*, 2019 (**Oral**)
- 41. C Ding, **J Wang**, S Jiang, Comparing Biological Equivalent Dose of Large Cerebral AVM Treatment Schemes Using Universal Survive Curve, *AAPM Annual Meeting*, 2019 (**E-Poster**)
- 42. D Shrestha, L Chen, Y Zhang, J Wang, Patient Specific Optimization of Hounsfield Unit to Relative Stopping Power Calibration Curve Using Carbon Ions, *AAPM Annual Meeting*, 2019 (E-Poster)
- 43. X Huang, L Chen, **J Wang**, Deformation Vector Field Estimation Using Convolutional Neural Network for Motion-Compensated 4D-CBCT Reconstruction, *AAPM Annual Meeting*, 2019 (Snap Oral)
- 44. S Zhou, Y Chi, **J Wang**, M Jin, General Simultaneous Motion Estimation and Image Reconstruction (G-SMEIR) for CBCT, *AAPM Annual Meeting*, 2019 (**Snap Oral**)
- 45. D Shrestha, Y Zhang, S Niu, **J Wang**, Overcoming Range Limitation of Carbon Ions for Relative Stopping Power Reconstruction by Using KV Projection Information, *AAPM Annual Meeting*, 2018 (**E-Poster**)
- 46. X Huang, Y Zhang, J Wang, Characterizing Inter-Fraction Motion Variation for Lung SBRT Patients Using 4D-CBCT Reconstructed by Simultaneous Motion Estimation and Image Reconstruction, AAPM Annual Meeting, 2018 (E-Poster)
- 47. X Huang, Y Zhang, J Wang, Dose Reconstruction for Lung Stereotactic Body Radiation Therapy (SBRT) Patients Using On-Board 4D Cone-Beam CT, AAPM Annual Meeting, 2018 (E-Poster)
- 48. S Niu, Y Zhong, X Huang, Y Zhang, J Ma, J Wang, Noise Suppression in Image-Domain Material Decomposition for Triple-Energy CT, *AAPM Annual Meeting*, 2018 (Oral presentation, Science Highlights)
- 49. C Zhao, Y Zhong, Y Chi, **J Wang**, M Jin, Simultaneous Dose Reduction and Scatter Correction Using 4D Moving-Blocker Based CBCT, *AAPM Annual Meeting*, 2018 (**E-Poster**)
- 50. Y Ding, L Chen, C Ding, **J Wang**, Remove Noise and Scatter of Low Dose Cone Beam CT Images Using Deep Learning Convolutional Neural Network, *AAPM Annual Meeting*, 2018 (**Snap Oral** presentation)
- 51. D Shrestha, N Qin, Y Zhang, M Tsai, X Jia, **J Wang**, Dosimetric Evaluation of 4D-CBCT Reconstructed by Simultaneous Motion Estimation and Image Reconstruction (SMEIR) for Carbon Ion Therapy of Lung Cancer, *AAPM Annual Meeting*, 2018 (**E-Poster**)
- 52. Z Zhou, D Sher, Q Zhang, J Shah, N Pham, L Chen, M Folkert, S Jiang, **J Wang**, Early Prediction of Locoregional Recurrence in Head & Neck Cancer After Radiation Therapy Through Multifaceted Radiomics, *AAPM Annual Meeting*, 2018 (**Oral** presentation, **Science Highlights**)
- 53. Z Zhou, S Li, H Hao, X Chen, M Folkert, S Jiang, **J Wang**, A Multi-Objective Based Feature Selection Method for Lung Nodule Malignancy Classification, *AAPM Annual Meeting*, 2018 (**Oral** presentation, **Science Highlights**)
- 54. G Qin, Z Zhou, Y Xu, J Ma, Q Zhang, D Nguyen, **J Wang**, L Zhou, W Chen, S Jiang, Predicting Malignant Mass in Digital Breast Tomosynthesis Using a Multi-Objective Radiomics Model, *AAPM Annual Meeting*, 2018 (**E-Poster**)
- 55. A Rodriguez, S Fisher, M Folkert, H Omar, L Tenorio, A Chhabra, **J Wang**, Radiomics Versus Radiologist Interpretations of Geometrical and Texture MRI Features of Musculoskeletal Tumors, *AAPM Annual Meeting*, 2018
- 56. Y Zhang, T Chiu, B Li, M Folkert, X Huang, X Jia, **J Wang**, Comprehensive Evaluation of a Biomechanical Modeling-Guided CBCT Reconstruction Technique (Bio-Recon) for Liver Imaging, *AAPM Annual Meeting*, 2018 (**Snap Oral** presentation)

- 57. X Liang, L Chen, D Nguyen, **J Wang**, S Jiang, Unparied Cone-Beam CT to CT Translation Using Cycle-Consistent Adversarial Networks, *AAPM Annual Meeting*, 2018 (**Oral** presentation)
- 58. Q Zhang, Z Zhou, G Qin, P Li, J Shah, N Pham, S Gottumukkala, Z Moore, D Sher, **J Wang**, S Jiang, Prediction of Local Persistence/Recurrence After Radiation Therapy Treatment of Head and Neck Cancer From PET/CT Using a Multi-Objective Radiomics Model, *AAPM Annual Meeting*, 2018
- 59. L Chen, Z Zhou, D Sher, Q Zhang, J Shah, N Pham, S Jiang, **J Wang**, Multi-Modality Convolutional Neural Network for Lymph Node Metastasis Prediction in Head and Neck Cancer, *AAPM Annual Meeting*, 2018 (**Oral** presentation)
- 60. H Hao, Z Zhou, S Li, M Folkert, L Yang, P Iyengar, K Westover, **J Wang**, Extended Shell Feature: Influence of Tumor Extension in Distant Metastasis Prediction for Non-Small Cell Lung Cancer, *AAPM Annual Meeting*, 2018 (**Oral** presentation)
- 61. L Chen, X Liang, C Shen, S Jiang, **J Wang**, Intelligent Synthetic CT Generation From CBCT Images Via Deep Learning, *AAPM Annual Meeting*, 2018 (**E-Poster**)
- 62. Y Zhong, Y Vinogradskiy, L Chen, N Myziuk, R Castillo, E Castillo, T Guerrero, S Jiang, **J Wang**, Deriving Ventilation Imaging From 4DCT by Deep Convolutional Neural Network, *AAPM Annual Meeting*, 2018 (**Snap Oral** presentation)
- 63. S Li, L Chen, Z Zhou, H Hao, Y Duan, B Li, M Folkert, S Jiang, J Wang Lung Nodule Malignancy Prediction by Combining Handcrafted Features and Deep Convolutional Neural Network, AAPM Annual Meeting, 2018 (Oral presentation, Science Highlights)
- 64. Y Zhang, L Chen, B Li, M Folkert, X Jia, X Gu, **J Wang**, Enhancing Accuracy of the Deformation-Driven CBCT Reconstruction by a Deep Learning-Based Projection Mapping Scheme *AAPM Annual Meeting*, 2018 (**E-Poster**)
- 65. Z Iqbal, D Luo, P Henry, S Kazemifar, T Rozario, Y Yan, K Westover, W Lu, D Nguyen, T Long, **J Wang**, H Choy, S Jiang, Accurate Real Time Localization Tracking in A Clinical Environment Using Bluetooth Low Energy and Deep Learning, *AAPM Annual Meeting*, 2018
- 66. Y. Zhang, J. Meyer, H. Lee, J. Tehrani, **J. Wang**, Liver CBCT Reconstruction by Prior-knowledge Guided Motion Modeling and Biomechanical Modeling, *ASRTO Annual Meeting*, 2017 (**Oral** presentation)
- 67. S. Li, B. Li, N. Yang, Z. Zhou, H. Hao, M. Folkert, K. Westover, P. Iyengar, R. Timmerman, H. Choy, S. Jiang, and **J. Wang**, A Support Tensor Machine Based Algorithm for Distant Failure Prediction in Lung SBRT, *AAPM Annual Meeting*, 2017 (**Oral** presentation)
- 68. F. Kalantari, Y. Zhong, and **J. Wang**, Attenuation and Motion Correction of 4D-PET Images Using Simultaneous Motion Estimation and Image Reconstruction (SMEIR) of 4D-CT Data, *AAPM Annual Meeting*, 2017 (**Oral** presentation)
- 69. Z. Zhou, M. Folkert, P. Iyengar, K. Westover, H. Choy, R. Timmerman, S. Jiang, and **J. Wang**, Multi-Modality Radiomics Model for Predicting Distant Failure in Lung SBRT, *AAPM Annual Meeting*, 2017 (**E-poster** Discussion)
- 70. Z. Zhou, G. Maquilan, K. Thomas, M. Folkert, K. Albuquerque, and **J. Wang**, Multi-Classifier Radiomics Model for Predicting Distant Failure in Cervical Cancer Using PET Image Features, *AAPM Annual Meeting*, 2017 (**E-poster Campus** Discussion)
- 71. X. Chen, Z. Zhou, K. Thomas, M. Folkert, N. Kim, A. Rahimi, and **J. Wang**, Predicting Recurrence in Triple Negative Breast Cancer Patients From Clinical Parameters Using Different Classifiers, *AAPM Annual Meeting*, 2017 (**E-poster** Discussion)
- 72. C. Zhao, X. Chen, L. Ouyang, **J. Wang**, M. Jin, Multi-View Scatter Correction for Moving-Blocker Based CBCT, *AAPM Annual Meeting*, 2017 (**Oral** presentation)
- 73. S. Niu, J. Ma, and **J. Wang**, Spectral CT Reconstruction Via Patch-Based Low-Rank and Sparse Matrix Decomposition, *AAPM Annual Meeting*, 2017 (**Oral** presentation)

- 74. L. Chen, G. Maquilan, K. Thomas, C. Shen, Z. Zhou, M. Folkert, K. Albuquerque, and **J Wang**, A Semi-Automatic Algorithm for Segmenting Cervical Tumors in 3D 18FDG PET, *AAPM Annual Meeting*, 2017 (**Oral** presentation)
- 75. A. Rodriguez, S. Fisher, M. Folkert, A. Chhabra, and **J. Wang**, Robust Radiomic Classification Models Using T2-Weighted MRI Geometrical and Texture Features, *AAPM Annual Meeting*, 2017 (**E-poster Campus** Discussion)
- 76. Y. Zhang, J. Meyer, L. Ren, J. Nasehi Tehrani, and **J. Wang,** Liver 4D-CBCT Imaging by a Motion Modeling and Biomechanical Modeling-Guided Reconstruction Technique (MM-Bio-Recon), *AAPM Annual Meeting*, 2017 (**Oral** presentation)
- 77. H. Hao, Z. Zhou, S. Li, M. Folkert, K. Westover, P. Iyengar, L. Yang, and **J. Wang**, Shell Feature: A New Descriptor for Predicting Distant Failure in Lung SBRT, *AAPM Annual Meeting*, 2017 (**Oral** presentation)
- 78. C. Shen, B. Li, L. Chen, **J. Wang**, M. Yang, Y. Lou, and X Jia, Sparse Dictionary Method for Material Elemental Decomposition in Dual and Multi-Energy CT for Proton Stopping Power Ratio Estimation, *AAPM Annual Meeting*, 2017 (**Oral** presentation)
- 79. X. Huang, Y. Zhang, and **J. Wang,** Biomechanical Modeling Assisted Simultaneous Motion Estimation and Image Reconstruction Incorporating for 4D-CBCT, *AAPM Annual Meeting*, 2017 (**Oral** presentation)
- 80. D. Shrestha, N. Qin, Y. Zhang, F. Kalantari, X. Jia, A. Pompos, S. Jiang, and **J. Wang**, Iterative Reconstruction for Carbon Computed Tomography with Accurate Boundary Detection, *AAPM Annual Meeting*, 2017 (**E-poster** Discussion)
- 81. Y. Shao, Y. Zhong, X. Cheng, and **J. Wang**, Design and Development of a High Resolution Onboard PET for Integrated PET/CT Animal Irradiator, *AAPM Annual Meeting*, 2017 (**Snap Oral** presentation)
- 82. Y. Zhong, F. Kalantari, Y. Zhang, and **J. Wang**, Quantitative 4D-PET Reconstruction for Small Animal Using 4D-CBCT, *AAPM Annual Meeting*, 2017 (**Oral** presentation)
- 83. Z. Gong, Q. Shi, L. Liu, **J. Wang**, and S. Tan, Statistical Iterative CBCT Reconstruction Using Convolutional Neural Network, *AAPM Annual Meeting*, 2017
- 84. Q. Shi, L. Liu, **J. Wang**, and S. Tan, Improve the Resolution of Statistical Iterative CBCT Reconstruction by Considering Both Hardware Blur and Software Blur, *AAPM Annual Meeting*, 2017
- 85. L. Liu, Q. Shi, **J. Wang**, and S. Tan, Structure Tensor Total Variation for CBCT Reconstruction, *AAPM Annual Meeting*, 2017
- 86. L. Liu, Q. Shi, **J. Wang**, and S. Tan, A New Penalty Generalizing Structure Tensor for CBCT Reconstruction, *AAPM Annual Meeting*, 2017
- 87. C. Zhao, Y. Zhong, **J. Wang**, and M. Jin, 4D Low-Dose CBCT Using a Moving-Blocker, *AAPM Annual Meeting*, 2017 (**Oral** presentation)
- 88. Y. Zhang, J. Ma, P. Iyengar, Y. Zhong, S. Niu, and **J. Wang**, Comprehensive Evaluation of An Adaptive Deformation-Recovery and Intensity-Correction (ADRIC) CBCT Reconstruction Technique, *AAPM Annual Meeting*, 2017 (**Oral** presentation)
- 89. F. Kalantari, H. Rajabi, A. Rodriguez, S. Gholami, M. Tavakoli, and **J Wang**, Analytical Calculation of Scatter Projections in Nuclear Medicine Imaging, *AAPM Annual Meeting*, 2017 (**Oral** presentation)
- 90. G. Maquilan, K. Thomas, Z. Zhou, **J. Wang**, M. Folkert, K. Albuquerque, "Clinical and PET Parameters as Prognostic Factors for Patients with Cervical Carcinoma: Clinical Implications of a Predictive Model Generated by a Support Vector Machine", *ASTRO Annual Meeting*, 2016, (**Oral** presentation)

- 91. Y Zhang, J Nasehi Tehrani, and **J Wang**, "A Biomechanical Modeling Guided CBCT Reconstruction Technique (Bio-recon)", ASTRO Annual Meeting, 2016, (**Oral** presentation, *Winner of Basic/Translational Science Junior Investigator Radiation Physics*)
- 92. Y Zhang, J Ma, and **J Wang**, "Development and Evaluation of an Adaptive Deformation-recovery and Intensity-correction (ADRIC) CT Reconstruction Technique", *AAPM Annual Meeting*, 2016 (**Oral** presentation)
- 93. Y Zhang, J Nasehi Tehrani, and **J Wang**, "Development and Evaluation of a Biomechanical Modeling-Assisted CBCT Reconstruction Technique (Bio-Recon)", *AAPM Annual Meeting*, 2016 (**Oral** presentation, **John R. Cameron Junior Investigator Competition Finalist**, one of top 10 scored abstracts from 392 submissions)
- 94. Z Zhou, M Folkert, P Iyengar, Y Zhang, and **J Wang**, "Predicting Distant Failure in Lung SBRT Using Multi-Objective Radiomics Model", *AAPM Annual Meeting*, 2016
- 95. J Nasehi Tehrani, A McEwan, and **J Wang**, "Lung surface displacement vector fields motion prediction by monitoring respiratory surrogate signals", *AAPM Annual Meeting*, 2016 (**Oral** presentation)
- 96. S Niu, Y Zhang, J Ma, and **J Wang** "Iterative reconstruction via prior image constrained total generalized variation for spectral CT", *AAPM Annual Meeting*, 2016 (**Oral** presentation)
- 97. L. Chen, Z. Zhou, and **J Wang**, "Constrained Chan-Vese algorithm for tumor segmentation in PET images", *AAPM Annual Meeting*, 2016 (**Snap Oral** presentation)
- 98. X. Chen, L Ouyang, H. Yan, X. Jia, and J. Wang, "Optimization of the design of a moving blocker for cone-beam CT scatter correction: experimental evaluation" *AAPM Annual Meeting*, 2016 (**Oral** presentation)
- 99. X. Chen, K. Thomas, R Hannan, and **J Wang**, Predicting gene Mutations in Renal Cell Carcinoma by analyzing contrast-enhance CT: validation with TCGA datasets, *AAPM Annual Meeting*, 2016 (**Oral** presentation)
- 100. F Kalantari, and **J Wang**, "Attenuation correction in 4D-PET using a single phase matched attenuation map using a penalized non-rigid transformation", *AAPM Annual Meeting*, 2016 (**Oral** presentation)
- 101. D Shrestha, N Qin, Y Zhang, X Jia, and **J Wang**, "Toward heavy ion computed tomography with Carbon ions: A Monte Carlo Study", *AAPM Annual Meeting*, 2016
- 102. Y Zhong, Y Zhang, Y Shao ,and **J Wang**, "Feasibility of Applying SMEIR Method On Small Animal 4D Cone Beam CT", *AAPM Annual Meeting*, 2016 (**Oral** presentation)
- 103. Z Zhong, L Zhuang, X Gu, **J Wang**, H Chen, X Zhen, "GPU-Based 4D Deformable Image Registration Using Adaptive Tetrahedral Mesh Modeling", *AAPM Annual Meeting*, 2016 (**Oral** presentation)
- 104. Y Zhong, X Sun, W Lu, X Jia, **J Wang**, Y Shao, "On-Line Beam Range Verification with Multiple Scanning Particle Beams: Initial Feasibility Study with Simulations", *AAPM Annual Meeting*, 2016 (**Snap Oral** presentation)
- 105. L Chen, C Shen, **J Wang**, S Jiang, X Jia, "Progressive Dose Control for Cone Beam CT with Deformation Assisted Temporal Nonlocal Means Method", *AAPM Annual Meeting*, 2016 (**Oral** presentation)
- 106. M Naseri, H Rajabi, **J Wang**, F Kalantari, "Respiratory Motion Correction in 4D-Multi Pinhole Small Animal SPECT", *AAPM Annual Meeting*, 2016 (**Oral** presentation)
- 107. Q Shi, P Cheng, **J Wang**, S Tan, S Tan, "Multiple Penalties with Different Orders for Structure Adaptive CBCT Reconstruction", *AAPM Annual Meeting*, 2016 (ePoster Campus Discussion)
- 108. Z. Zhou, N. Cannon, M. Folkert, P. Iyengar, H. Choy, R. Timmerman, S. Jiang, and **J. Wang**, "Predicting Distant Failure in Lung SBRT Using Clinical Parameters", *ASTRO Annual Meeting*, 2015 (**Oral** presentation)

- 109. Z. Zhong, X. Gu, P. Iyengar, W. Mao, X. Guo, and **J. Wang**, "A Multi-organ Meshing Method for Sliding Motion Modeling in 4D-CBCT Reconstruction", *ASTRO Annual Meeting*, 2015 (**Oral** presentation)
- 110. J Nasehi Tehrani, Y. Yang, R. Werner, W. Lu, D. Low, X. Guo, **J. Wang**, Sensitivity of Tumor Motion Simulation Accuracy to Lung Biomechanical Modeling Approaches and Parameters, *AAPM Annual Meeting*, vol. 42, pp. 3729 ,2015 (**Oral** presentation)
- 111. J. Nasehi Tehrani, X. Guo, **J Wang**, Mooney-Rivlin Biomechanical Modeling of Lung with Inhomogeneous Material Property, *AAPM Annual Meeting*, vol. 42, pp. 3637,2015 (Electronic Campus Poster Discussion)
- 112. Z. Zhong, X. Gu, P. Iyengar, W. Mao, X. Guo, **J. Wang**, 4D Cone-Beam CT Reconstruction Using Multi-Organ Meshes for Sliding Motion Modeling, *AAPM Annual Meeting*, vol. 42, pp. 3730,2015 (**Oral** presentation)
- 113. Z. Zhou, N. Cannon, M. Folkerts, P. Iyengar, H. Choy, R. Timmerman, S. Jiang, **J. Wang**, Predicting Distant Failure in Lung SBRT Using Clinical Parameters, *AAPM Annual Meeting*, vol. 42, pp. 3701,2015 (**Oral** presentation)
- 114. Z. Zhong, X. Gu, P. Iyengar, W. Mao, X. Guo, **J. Wang**, GPU-Based 4D Cone-Beam CT Reconstruction Using Adaptive Meshing Method, *AAPM Annual Meeting*, vol. 42, pp. 3219, 2015(**Snap Oral** presentation)
- 115. B. Li, Q. Lyu, J. Ma, **J. Wang**, Statistical Iterative Reconstruction for Perfusion CT with a Prior-Image Induced Hybrid Nonlocal Means Regularization, *AAPM Annual Meeting*, vol. 42, pp. 3638 ,2015 (Electronic Campus Poster Discussion)
- 116. Q. Lyu, B. Li, J. Ma, **J. Wang**, Iterative CBCT Reconstruction with a Feature-Preserving Penalty, *AAPM Annual Meeting*, vol. 42, pp. 3241,2015
- 117. D. Staub, R. Hannan, K. Thomas, S. Jiang, I. Pedrosa, P. Kapur, J. Brugarolas, **J. Wang**, Predicting Gene Mutations in Renal Cell Carcinoma Using Machine Learning, *AAPM Annual Meeting*, vol. 42, pp. 3586, 2015 (**Oral** presentation)
- 118. F. Kalantari, T. Li, M Jin, **J. Wang**, Respiratory Motion Correction in 4D-PET by Simultaneous Motion Estimation and Image Reconstruction (SMEIR), *AAPM Annual Meeting*, vol. 42, pp. 3661,2015 (**Oral** presentation)
- 119. D. Staub, **J. Wang**, S. Jiang, Knowledge Based DVH Prediction Using a Geometric Dose Transform, *AAPM Annual Meeting*, vol. 42, pp. 3580, 2015(**Oral** presentation)
- 120. J. Dang, F. Yin, T. You, C. Dai, **J. Wang**, Sliding Motion Compensated Simultaneous 4D-CBCT Reconstruction, *AAPM Annual Meeting*, vol. 42, pp. 3731, 2015(**Oral** presentation)
- 121. C. Zhao, L. Ouyang, **J. Wang**, and M. Jin, Investigation of Deconvolution Methods for Blocker-Based CBCT Scatter Estimation, *AAPM Annual Meeting*, vol. 42, pp. 3243, 2015
- 122. H. Zhang, L. Ouyang, J. Huang, J. Ma, W. Chen, **J. Wang**, Cone-Beam CT Reconstruction with Deformed Prior Image, *AAPM Annual Meeting*, vol. 41, pp. 527,2014 (**Oral** presentation)
- 123. Y. Xu, H. Yan, L. Ouyang, **J. Wang**, L. Zhou, S. Jiang, X. Jia, Robust Real-Time Volumetric Imaging Based On One Single Projection, *AAPM Annual Meeting*, vol. 41, pp. 522, 2014 (**Oral** presentation)
- 124. Y. Xu, T. Bai, H. Yan, L. Ouyang, **J. Wang**, A. Pompos, L. Zhou, S. Jiang, and X. Jia, Ultrafast Cone-Beam CT Scatter Correction with GPU-Based Monte Carlo Simulation, *AAPM Annual Meeting*, vol. 41, pp. 540, 2014 (**Oral** presentation)
- 125. H. Zhang, L. Ouyang, J. Huang, J. Ma, W. Chen, and **J. Wang**, Noise Correlation in CBCT Projection Data and Its Application for Noise Reduction in Low-Dose CBCT, *AAPM Annual Meeting*, vol. 41, pp. 540, 2014 (**Oral** presentation)
- 126. L. Ouyang, H. Yan, H. Zhang, X. Jia, S. Jiang, **J. Wang**, Optimization of a Moving Blocker System for Cone-Beam Computed Tomography Scatter Correction, *AAPM Annual Meeting*, vol. 41, pp. 125, 2014 (**Oral** presentation)

- 127. L. Ouyang, H. Lee, and **J. Wang**, A Moving-Blocker-Based Strategy for Simultaneous Megavoltage and Kilovoltage Scatter Correction in Cone-Beam Computed Tomography Image Acquired During Volumetric Modulated Arc Therapy, *AAPM Annual Meeting*, vol. 41, pp. 156, 2014
- 128. T. Sun, N. Sun, **J. Wang**, and S. Tan, Hessian-Based Norm Penalty for Weighted Least-Square CBCT Reconstruction, *AAPM Annual Meeting*, vol. 41, pp. 406, 2014 (**Oral** presentation)
- 129. J. Nasehi Tehrani1, X. Guo, Y. Yang, and **J. Wang**, 3D Markerless Registration of Lung Based On Coherent Point Drift: Application in Image Guided Radiotherapy, *AAPM Annual Meeting*, vol. 41, pp. 101, 2014 (**Oral** presentation)
- 130. J. Dang, X. Gu, L. Ouyang, T. Pan, and **J. Wang**, Development and Evaluation of a 4D-CBCT Scheme Based On Simultaneous Motion Estimation and Image Reconstruction, *AAPM Annual Meeting*, vol. 41, pp. 572, 2014 (**Oral** presentation)
- 131. **J. Wang** and X. Gu, "Simultaneous Motion Estimation and Image Reconstruction (SMEIR) for 4D Cone-Beam CT", *AAPM Annual Meeting*, vol. 40, pp. 542, 2013 (**Oral** presentation)
- 132. L. Ouyang, K. Song, T. Solberg and **J. Wang**, "A Moving Blocker System for Cone-Beam Computed Tomography Scatter Correction", *AAPM Annual Meeting*, vol. 40, pp. 512 ,2013 (**Oral** presentation)
- 133. J. Dang, L. Ouyang, X. Gu, and **J. Wang**, "Deformation Vector Fields (DVF)-Driven Image Reconstruction for 4D-CBCT", *AAPM Annual Meeting*, vol. 40, pp. 457, 2013 (**Oral** presentation)
- 134. Z. Zhong, Y. Cai, X. Guo, V. Kearney, L. Jiang, **J. Wang**, J. Yordy, S. Chen, L. Nedzi, T. Solberg, and W Mao, "A Novel Volumetric Imaging Method Using a Sparse Subset of CBCT Projections", *AAPM Annual Meeting*, vol. 40, pp. 479, 2013 (**Oral** presentation)
- 135. X. Gu, A. Pompos, Z. Zhong, **J. Wang**, X. Guo, X. Jia, B. Dong, S. Jiang, and T. Solberg, "A Contour-Guided Deformable Image Registration Scheme for Organ Surface Deformation", *AAPM Annual Meeting*, vol. 40, pp. 168, 2013
- 136. Z. Li and **J. Wang**, "Patient-Specific Biomechanical Model of Human Lung Using Four-Dimensional CT", *AAPM Annual Meeting*, vol. 39, pp. 3923, 2012 (**Oral** presentation)
- 137. **J. Wang**, X. Gu, and T. Solberg, "High Quality Four Dimensional Cone-Beam CT by Deforming Prior Planning CT", *AAPM Annual Meeting*, vol. 39, pp. 4000, 2012 (**Oral** presentation)
- 138. **J. Wang** and T. Solberg, "Lung Ventilation Image from Enhanced Four-dimension Cone-beam Computed Tomography", *ASTRO Annual Meeting*, 2011
- 139. **J. Wang**, J. Robar, and H. Guan, "Noise Suppression in Reconstruction Low-Z Target MV CBCT Images", *AAPM Annual Meeting*, vol. 38, pp. 3879, 2011 (**Oral** presentation)
- 140. **J. Wang**, L. Ouyang, W. Lu, and T. Solberg, "Low-Dose CBCT by Iterative Image Reconstruction Using Non-Local Edge-Preserving Prior", *AAPM Annual Meeting*, vol. 38, pp. 3403, 2011
- 141. L. Ouyang, W. Chance, T. Solberg, and **J. Wang**, "Dose Reduction for CBCT by Incorporating Prior Volumetric Image Information", *AAPM Annual Meeting*, vol. 38, pp. 3714, 2011 (**Oral** presentation)
- 142. W. Lu, W. Yao, **J. Wang** and D. Yang "Noise Reduction with Detail Preservation for Low-Dose KV CBCT Using Non-Local Means: Simulated Patient Study", *AAPM Annual Meeting*, vol. 38, pp. 3445, 2011
- 143. B. Meng, **J. Wang**, and L. Xing, "Metal Artifacts Reduction Using Sinogram Pre-Processing and Post-Processing in Computed Tomography (CT)", *AAPM Annual Meeting*, vol. 38, pp. 3404, 2011
- 144. X. Zhang, L. Xing, and **J. Wang**, "CT Metal Artifact Reduction by Dual Constrained Optimizations", *ASTRO Annual Meeting*, 2010

- 145. **J. Wang**, W. Mao, and T. Solberg, "A novel scatter correction scheme for cone-beam computed tomography using moving 1D blocker strips", *AAPM Annual Meeting*, vol. 37, pp. 3443, 2010 (**Oral** presentation)
- 146. **J. Wang**, H. Guan, and T. Solberg, "Optimize the smoothing parameter in penalized weighted least-squares algorithm for noise reduction of low-dose CBCT", vol. 37, pp. 3352, *AAPM Annual Meeting*, 2010
- 147. L. Ouyang, T. Solberg, and **J. Wang**, "Penalized weighted lease-Squares image reconstruction for low-dose CBCT: a comparison study of different edge-preserving penalties", *AAPM Annual Meeting*, vol. 37, pp. 3093, 2010
- 148. W. Lu, D. Yang, and **J. Wang**, "Noise reduction with detail preservation for low-dose kilovoltage CBCT using nonlocal means algorithm", *AAPM Annual Meeting*, vol. 37, pp. 3394, 2010 (**Oral** presentation)
- 149. W. Mao, **J. Wang**, R. Foster, K Song, and T. Solberg, "Direct investigation of geometric coincidence among Calypso system, onboard kV imaging, and MV treatment beam imaging", *AAPM Annual Meeting*, vol. 37, pp. 3149, 2010
- 150. B. Meng, **J Wang**, S. Boyd, and L. Xing, "Binary CT image reconstruction with limited number of projections for metal artifacts removal", *AAPM Annual Meeting*, vol. 37, pp. 3111, 2010
- 151. X. Zhang, J. Wang, and L. Xing, "A Constrained Optimization Algorithm for CT Metal Artifact Reduction", *AAPM Annual Meeting*, vol. 37, pp. 3379, 2010 (**Oral** presentation)
- 152. K.Choi, **J. Wang**, L. Zhu, T. Suh, S. Boyd, and L Xing, "Compressed Sensing with a First-Order Method for Low-Dose Cone-Beam CT Reconstruction", *AAPM Annual Meeting*, vol. 37, pp. 3342, 2010
- 153. **J. Wang**, and L. Xing, "Incorporation of Prior Volumetric Image Information into Cone-beam CT (CBCT) Reconstruction: a Novel Strategy of Imaging dose Reduction for Daily Patient Setup and Adaptive Radiation Therapy", *ASTRO Annual Meeting*, 2009 (**Oral** presentation)
- 154. K.Choi, **J. Wang,** L. Zhu, Y. Ye and L. Xing, "CBCT Image Reconstruction via Anisotropic Total-Variation Regularization", *ASTRO Annual Meeting*, 2009
- 155. X. Zhang, **J. Wang**, and L. Xing, "Metal Artifact Reduction in Cone-Beam CT by Constrained Optimization", *ASTRO Annual Meeting*, 2009
- 156. **J. Wang** and L. Xing, "Accurate noise modeling of cone-beam CT projection data", *AAPM Annual Meeting*, vol. 36, pp. 2696, 2009 (**Oral** presentation)
- 157. **J. Wang**, T. Li, and L. Xing, "Iterative image reconstruction for CBCT using edge-preserving prior", *AAPM Annual Meeting*, vol. 36, pp. 2444, 2009
- 158. L. Xing, **J. Wang**, and L. Zhu, "Noise suppression in scatter correction for Cone-Beam CT", *AAPM Annual Meeting*, vol. 36, pp. 2697, 2009 (**Oral** presentation)
- 159. **J. Wang**, T. Li, and L. Xing, "Low-dose CBCT Imaging for External Beam Radiotherapy", *ASTRO Annual Meeting*, 2008 (**Oral** presentation)
- 160. X. Zhang, **J. Wang**, L. Zhu, and L. Xing, "Low-dose X-ray fluoroscopy for Image Guided Radiation Therapy (IGRT)", *ASTRO Annual Meeting*, 2008
- 161. **J. Wang**, T. Li, Z. Liang and L. Xing, "Dose reduction for kilovoltage cone-beam computed tomography in radiation therapy", *AAPM Annual Meeting*, vol. 35, pp. 2938, 2008 (**selected for long presentation at the John S. Laughlin Science Council Research Symposium**)
- 162. **J. Wang**, L. Zhu, A. Chai, and L. Xing, "Temporal filtering of noise in low-dose x-ray fluoroscopy", *AAPM Annual Meeting*, vol. 35, pp. 2660, 2008
- 163. L. Zhu, **J. Wang**, Y. Xie, J. Starman, R. Fahrig, and L. Xing, "A patient set-up protocol based on partially blocked cone-beam CT", *AAPM Annual Meeting*, vol. 35, pp. 2645, 2008
- 164. **J. Wang**, T. Li, and L. Xing, "Iterative image reconstruction for on-board CBCT", *Electronic Portal Imaging & Positioning Devices*, 2008

- 165. **J. Wang**, M. Cao, and L. Xing, "Toward Clinical Implementation of Adaptive Treatment Planning: Auto-Propagation of Contours from Planning CT to Cone Beam CT Images", *ASTRO Annual Meeting*, 2007 (**Oral** presentation)
- 166. J. You, **J. Wang**, and Z. Liang, "An investigation on FBP reconstruction for attenuated Radon transform with partial data", *The Annual Meeting of Society of Nuclear Medicine*, 2007.