Curriculum vitae

Name: You Zhang

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Education

Year	Degree (Honors)	Field of Study (Thesis advisor for PhDs)	Institution
2010	B.S. (Magna Cum Laude)	Physics	Nanjing University
2015	Ph.D.	Medical Physics (Lei Ren, Ph.D. & Fang-Fang Yin, Ph.D.)	Duke University

Postdoctoral Training

Year	Titles	Specialty/Discipline	Institution
2015-2018	Resident	Therapeutic Physics Residency	UT Southwestern Medical Center

Current Licensure and Certification

Licensure

Licensed Medical Physicist, State of Texas   June 2019 to Present

Board and Other Certification

Certified in Therapeutic Medical Physics, American Board of Radiology   June 2019 to Present

Certificate of Training for GammaPod Applications, Xcision Medical Systems   March 2019 to Present

Certificate in College Teaching, Duke University   May 2015 to Present

Honors and Awards

Year	Name of Honor/Award	Awarding Organization
2023	IOP Trusted Reviewer (Top 15% reviewers of physical science)	Institute of Physics (IOP)

2023	Basic/Translational Science Abstract Award (Co-investigator)	ASTRO
2022	Best of Physics Abstract (Senior Author)	ASTRO
2022	ASTRO Travel Award (Senior Author)	ASTRO
2021	John R. Cameron Early-Career Investigator Competition Finalists (Co-investigator)	AAPM
2020	Top cited article 2020-2021 (Co-first Author)	JACMP
2019	Highlighted Article (Corresponding Author)	Medical Physics
2019	Top 10% most downloaded paper for JACMP (Co-first Author)	JACMP
2019	AAPM Summer School Scholarship	AAPM
2018-2019	Science Council Associates Mentorship Program Awardee	AAPM
2017	ABS Prostate HDR/LDR Brachytherapy Scholarship	ABS
2016	Basic/Translational Science Abstract Award (First Author)	AAPM
2016	John R. Cameron Young Investigator Competition Finalists (First Author)	AAPM
2016	Science Council Junior Investigator Competition Winner (Co-investigator)	AAPM
2016	1st Prize for Residents	South Texas Chapter – Health Physics Society Meeting
2015	Featured Presentation (First Author)	AAPM
2014	Best of Physics Abstract (Co-investigator)	ASTRO

Faculty Academic Appointments

Year(s)	Academic Title	Department/Program	Academic Institution
2023-	Associate Professor	Radiation Oncology	UT Southwestern Medical Center
2020-	Member	BME	UT Southwestern Medical Center
2018-	Assistant Professor	Radiation Oncology	UT Southwestern Medical Center

Appointments at Hospitals/Affiliated Institutions

Year(s)	Position Title	Department/Division	Institution
2018-	Medical Physicist	Radiation Oncology	UT Southwestern Medical Center

Major Administrative/Leadership Positions

Year(s)	Position Title	Institution
2022-	Director, BME Graduate Program Medical Physics Track	UT Southwestern Medical Center
2021-2023	Lead Physicist, GammaPod Services	UT Southwestern Medical Center

Committee Service (*Member, unless noted otherwise*)

Year(s)	Name of Committee	Institution/Organization
UTSW		
2023-	Medical Physics Graduate Program 2.0 Committee	Radiation Oncology
2022-	BME Steering Committee	BME Graduate Program
2022-	Graduate/Certificate Program Steering Committee	Radiation Oncology
2020-	MP Residency Program Evaluation Committee	Radiation Oncology
2020	Physics Residency Committee for Vision 2020	Radiation Oncology
2018-2019	Technology Expansion Committee	Radiation Oncology

Professional Societies

Dates	Society Name, member
2021-	International Society for Magnetic Resonance in Medicine (ISMRM), Member
2020	The Medical Image Computing and Computer Assisted Intervention Society (MICCAI), Member
2020-	Institute of Electrical and Electronics Engineers (IEEE), Member
2017-	American Society for Radiation Oncology (ASTRO), Member
2011-	American Association of Physicists in Medicine (AAPM), Member
	Committees
2023-	AAPM Medical Physics Graduate Education Subcommittee (MPGESC)
2023	AAPM Annual Meeting 2023, Scientific Session Moderator
2023-	AAPM Joint Working Group for Research Seed Funding Initiative, Member
2022	AAPM Summer School Workshop Coordination Committee, Chair
2021	AAPM Annual Meeting 2021, Scientific Session Moderator
2019-	AAPM Summer School Subcommittee, Member
2019-	AAPM Work Group "Ask the Expert", Member
2019-2022	AAPM Science Council Associates Mentorship Program, Member

Grant Review Activities

Year(s)	Name of Review Committee	Organization
2023	Detection, Diagnosis & Prognosis (DDP) peer review panel	Department of Defense (DoD) Congressionally Directed Medical Research Programs (CDMRP)
2023	Ralph E. Powe Junior Faculty Award	Oak Ridge Associated Universities
2023	ZonMw Veni Programme	Dutch Research Council, domain Health Research and Development

Year(s)		
2022	Detection, Diagnosis & Prognosis (DDP) peer review panel	Department of Defense (DoD) Congressionally Directed Medical Research Programs (CDMRP)

Editorial Activities

Year(s)	Journal Name
Editor/Associate Editor	
2018-	Medical Physics (Guest Associate Editor)
2020-	Frontiers in Oncology (Review Associate Editor)
Editorial Board	
2024-	Physics in Medicine and Biology
Ad Hoc Reviewer	
2023	Medical Image Analysis
2023	Joint MICCAI Workshop on Time-Series Data Analytics and Learning (MTSAIL) and Efficient Lesion Assessment and Follow-up (ELAF)
2023-	IEEE Transactions on Pattern Analysis and Machine Intelligence
2022-	Zeitschrift Fuer Medizinische Physik
2022-	Journal of Medical Imaging and Radiation Oncology
2022-	IET Image Processing
2020	Nuclear Science and Techniques
2020-	MICCAI Annual Conference
2019	Quantitative Imaging in Medicine and Surgery
2019-	AAPM Annual Conference
2019	Journal of Cancer Research and Clinical Oncology
2019	Practical Radiation Oncology
2018	IEEE Access
2018	Biomedical Physics & Engineering Express
2018	Cureus
2018	International Journal of Radiation Oncology Biology Physics
2017-	IEEE Transactions on Medical Imaging
2017	Optical Engineering
2017	Journal of X-ray Science and Technology
2017	Advances in Radiation Oncology
2016-	Medical Dosimetry
2016	Physica Medica
2015-	Radiotherapy & Oncology
2015-	PLOS One
2015-	Technology in Cancer Research and Treatment
2015	Journal of Clinical Trials
2015-	Journal of Applied Clinical Medical Physics

2014-	International Journal of Computer Assisted Radiology and Surgery
2014	Applied Sciences
2014-	Physics in Medicine and Biology
2013	Journal of Computational Medicine
2013-	Medical Physics

Grant Support

Present	*Grantor:* NIH/NCI R01CA240808
	Title of Project: Accurate 4D Liver Tumor Localization for Radiotherapy using Contrast-Agent-Free X-ray Imaging and Liver Biomechanical Modeling
	Role (Principal Investigator, Co-Investigator): Principal Investigator (Contact)
	Award Period: 2020-2025

Present	*Grantor:* NIH/NCI R01CA258987
	Title of Project: Artificial Intelligence-Based Quality Assurance for Online Adaptive Radiotherapy
	Role (Principal Investigator, Co-Investigator): Multi-Principal Investigator
	Award Period: 2022-2027

Present	*Grantor:* NIH/NCI R01CA280135
	Title of Project: High-Precision Proton Therapy for Liver Cancer: Developing an End-to-end Strategy with Real-time Liver Tumor Localization and On-the-fly Plan Delivery Adaptation
	Role (Principal Investigator, Co-Investigator): Multi-Principal Investigator (Contact)
	Award Period: 2024-2029

Present	*Grantor:* Varian Medical Systems
	Title of Project: Real-time liver tumor localization via a single x-ray projection using graph neural network-assisted deep biomechanical modeling (MeshBioNet)
	Role (Principal Investigator, Co-Investigator): Principal Investigator (Contact)
	Award Period: 2023-2025

Present	*Grantor:* Varian Medical Systems
	Title of Project: Time-resolved Dynamic Cone-beam CT Imaging for Lung Patients Using Spatial and Temporal Implicit Neural Representation (STINR)
	Role (Principal Investigator, Co-Investigator): Principal Investigator (Contact)
	Award Period: 2023-2025

Past	*Grantor:* NIH/NIBIB R01EB027898
	Title of Project: Real-time prostate lesion tracking during SBRT

	Role (Principal Investigator, Co-Investigator): Co-Investigator
	Award Period: 2019-2023

Past	*Grantor:* UT Southwestern Medical Center – Radiation Oncology
	Title of Project: 4D Liver Tumor Localization for Radiotherapy
	Role (Principal Investigator, Co-Investigator): Principal Investigator (Contact)
	Award Period: 2018-2020

Clinical Trials Activities

Present	*Grantor:* UT Southwestern Medical Center
	Title of Project: Evaluation of Contrast-Agent-Free Liver Tumor Imaging and Localization Using 4D Cone-Beam Computed Tomography
	Role (Principal Investigator, Co-Investigator): Principal Investigator

Present	*Grantor:* UT Southwestern Medical Center
	Title of Project: A Phase I Dose Escalation Study of Single Fraction Pre-operative Partial Breast (S-PBI) for Early Stage Breast Cancer
	Role (Principal Investigator, Co-Investigator): Co-Investigator

Teaching Activities

Year(s)	Activity
Medical and graduate school didactic and small group teaching	
2023-	Director, *Introductory Radiation Therapy Physics Rotation*
2021-	Case Study Leader, *Responsible Conduct of Research*
2020-	Lecturer, *Radiological Physics and Dosimetry*
2020-2021	Lecturer, *VMAT-based TBI Techniques*
2019-	Lecturer, *Radiation Protection and Radiation Safety*
2019-2021	Lecturer, *Introductory Radiation Therapy Physics Rotation*
2019-2021	Lecturer, *RT 3314–Medical Dosimetry & Treatment Planning I*
2019-2021	Lecturer, *RT 4315–Medical Dosimetry & Treatment Planning II*
2019-2021	Lecturer, *RT 5212–Emerging Technology in Radiation Therapy (MRI)*
2019-2021	Lecturer, *RT 5401-Advanced Radiotherapy and Medical Physics*
Committees concerned with medical and graduate student education	
2023-	Medical Physics Graduate Program 2.0 Committee
2022-	BME Steering Committee
2022-	Grad/Certificate Program Steering Committee
2020-	Ph.D. Candidate Interview Committee

Graduate student rotations	
2023	Shunyu Yan
2023	Tianyu Wang
2022	Yunxiang Li
Graduate student mentor	
2022-	Yunxiang Li
Ph.D. Dissertation Committee Service	
2024-	Yan Dai (Member)
2024-	Banghao Zhou (Member)
Postgraduate medical education (graduate & continuing medical education)	
2019-	Faculty Mentor of the UTSW Medical Physics Residency Program
Postdoctoral trainees	
2020-	Hua-Chieh Shao
2022	Tielige Mengke Position after training: Samsung Semiconductor
2023-	Xiaoxue Qian
2024-	Yang Li
Student Interns/Trainees	
2023-	Jiacheng Xie
2023-	Taejoon Park
2023	Kaden Vasquez (AAPM Summer Undergraduate Fellowship Program)
2022-2023	Raghav Ramki (UTSW STARs Program) Position after training: college student at Stanford University
2021-	Shiau Ho
2021	Shree Allada (UTSW STARs Program) Position after training: college student at Emory University

Invited Lectures

Year(s)	Title	Location
International		
2023	Pre- and Post-Operative Breast SBRT Using New Modalities	Shenzhen, China (Virtual)
2022	Pre- and Post-Op Breast SBRT Using Gamma Pod	Washington DC
2022	Artificial Intelligence-Assisted Medical Imaging for Image-Guided Radiation Therapy	Harbin, China (Virtual)
2014	3D/4D imaging verification using digital tomosynthesis (DTS)	Hong Kong, China
National		
2022	AI-assisted 4D and Real-time Imaging for Radiotherapy Treatment Planning and Delivery	Houston, TX

2022	Pre- and Post-Op Breast SBRT Using New Modalities	AAMD (Virtual)
2021	Enabling Accurate On-board Imaging for Radiotherapy Using Advanced Reconstruction and Machine Learning Techniques	Buffalo, NY (Virtual)
2017	Enhancing image-guided radiation therapy through deformation-driven CBCT estimation techniques	Atlanta, GA
2017	Enhancing image-guided radiation therapy through deformation-driven CBCT estimation techniques	Brunswick, NJ
Regional/Local		
2023	AI-Driven Dynamic and Real-Time Imaging for Adaptive Radiotherapy	MD Anderson Cancer Center
2023	Barriers to clinical implementation/translation of AI	UT Southwestern Medical Center
2022	AI-Assisted Fast Volumetric Imaging and Target Localization for Image-Guided Radiation Therapy	UT Southwestern Medical Center: ROAR seminar series
2022	Artificial Intelligence-Assisted Medical Imaging for Image-Guided Radiation Therapy	United Imaging, Houston
2022	Artificial Intelligence-Assisted Medical Imaging for Image-Guided Radiation Therapy	University of Texas at Arlington
2022	Towards intra-treatment, real-time (time-resolved) volumetric MRI: current developments and challenges	UT Southwestern Medical Center

Service to the Community

Year(s)	Role	Organization or institution
External		
2020-	Reviewer, AAPM summer school topic proposals	AAPM
2019	Reviewer, AAPM SCAMP candidates	AAPM
Internal		
2022-	Interviewer, medical physics faculty candidates	UT Southwestern Medical Center
2020-	Interviewer, medical physics Ph.D. program candidates	UT Southwestern Medical Center
2020	Interviewer, radiation oncology engineer candidates	UT Southwestern Medical Center
2020	Interviewer, medical physics assistant candidates	UT Southwestern Medical Center

| 2016-2019 | Interviewer, medical physics resident candidates | UT Southwestern Medical Center |

Bibliography

Peer-Reviewed Publications

Original Research Articles (*as corresponding author)

1.	H. Shao, T. Mengke, J. Deng, **Y. Zhang***, " 3D cine-magnetic resonance imaging using spatial and temporal implicit neural representation learning (STINR-MR)", *Physics in Medicine and Biology*, accepted.
2.	Y. Li, H. Shao, X. Liang, L. Chen, R. Li, S. Jiang, J. Wang, **Y. Zhang***, " Zero-shot Medical Image Translation via Frequency-Guided Diffusion Models", *IEEE Transactions on Medical Imaging*, 43(3), 980-993 (2024).
3.	Z. Li, Y. Li, Q. Li, P. Wang, D. Guo, L. Lu, D. Jin, **Y. Zhang**, Q. Hong, " LViT: Language meets Vision Transformer in Medical Image Segmentation", *IEEE Transactions on Medical Imaging*, 43(1), 96-107 (2024).
4.	H. Shao, Y. Li, J. Wang, S. Jiang, **Y. Zhang***, " Real-time Liver Motion Estimation via Deep Learning-based Angle-agnostic X-ray Imaging", *Medical Physics*, 50(11), 6649-6662 (2023).
5.	Y. Li, Z. Li, K. Zhang, R. Dan, S. Jiang, **Y. Zhang***, " ChatDoctor: A Medical Chat Model Fine-Tuned on a Large Language Model Meta-AI (LLaMA) Using Medical Domain Knowledge", *Cureus*, 15(6) (2023).
6.	**Y. Zhang***, H. Shao, T. Pan, T. Mengke, " Dynamic Cone-beam CT Reconstruction using Spatial and Temporal Implicit Neural Representation Learning (STINR)", *Physics in Medicine and Biology*, 68(4), p.045005 (2023).
7.	H. Shao, Y. Li, J. Wang, S. Jiang, **Y. Zhang***, " Real-time Liver Tumor Localization via combined Surface Imaging and A Single X-ray Projection", *Physics in Medicine and Biology*, 68(6), p.065002 (2023).
8.	H. Shao, T. Li, M. Dohopolski, J. Wang, J. Cai, J. Tan, K. Wang, **Y. Zhang***, "Real-Time MRI Motion Estimation through an Unsupervised K-Space-Driven Deformable Registration Network (KS-RegNet) ", *Physics in Medicine & Biology*, 67(13), p.135012 (2022)
9.	H. Shao, J. Wang, T. Bai, J. Chun, C. Park, S. Jiang, **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*, 67(11), p.115009 (2022).
10.	E. Zhang-Velten, **Y. Zhang**, et. al., "A How-To Compendium for GammaPod Treatments, Clinical Workflow, and Clinical Program at an Early Adapting Institution", *Practical Radiation Oncology*, 12(3), pp.e177-e182 (2022).
11.	T. Peng, C. Wang, **Y. Zhang**, 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*, 67(7), p.075006 (2022).
12.	Z. Xiong, Y. Zhong, T. Chiu, J. Tan, **Y. Zhang**, D. Parsons, T. Banks, R. Reynolds, Y. Yan, A. Godley, S. Stojadinovic, " Machine characterization and central axis depth dose data of a superficial radiotherapy unit", *Biomedical Physics & Engineering Express*, 9(1): 015005 (2022).
13.	H. Shao, X. Huang, M. Folkert, J. Wang, **Y. Zhang***, "Automatic Liver Tumor Localization Using a Combined Deep Learning and Biomechanical Model (DL-Bio) ", *Medical Physics* 48(6), 7790-7805 (2021).

14.	**Y. Zhang***, "An Unsupervised 2D-3D Deformable Registration Network (2D3D-RegNet) for Cone-Beam CT Estimation", *Physics in Medicine & Biology*, 66(7): 074001 (2021).
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", *Medical Physics* 49(1), 488-496 (2021).
16.	E. Zhang, D. Parsons, et al., **Y. Zhang**, et al., K. Kumar, X. Gu, "Volumetric Modulated Arc Therapy Enabled Total Body Irradiation (VMAT-TBI): Six-year Clinical Experience and Treatment Outcomes", *Transplantation and Cellular Therapy* 28(2), 133-e1 (2021).
17.	S. Niu, S. Lu, **Y. Zhang**, X. Huang, Y. Zhong, G. Yu, J. Wang, "Statistical image-based material decomposition for triple-energy Computed Tomography using total variation regularization", *Journal of X-Ray Science and Technology* 28(4), 751-771 (2020).
18.	Y. Xing, **Y. Zhang*** (co-first author), D. Nguyen, M. Lin, W. Lu, S. Jiang, "Boosting radiotherapy dose calculation accuracy with deep learning", *Journal of Applied Clinical Medical Physics* 21:8, 149-159 (2020).
19.	D. Parsons, **Y. Zhang**, X. Gu, W. Lu, "POD-DOSI: A Dedicated Dosimetry System for GammaPod Commissioning and Quality Assurance", *Medical Physics* 47(8), 3647-3657 (2020).
20.	X. Huang, **Y. Zhang***, L. Chen, J. Wang, "U-net-based Deformation Vector Field Estimation for Motion-Compensated 4D-CBCT Reconstruction", *Medical Physics* 47(7), 3000-3012 (2020).
21.	**Y. Zhang***, M. Folkert, B. Li, X. Huang, J. Meyer, T. Chiu, P. Lee, J. Tehrani, J. Cai, D. Parsons, X. Jia and J. Wang, "4D Liver Tumor Localization using Cone-Beam Projections and a Biomechanical Model", *Radiotherapy & Oncology* 133, 183-192 (2019).
22.	**Y. Zhang***, M. R. Folkert, X. Huang, J. Meyer, J. N. Tehrani, L. Ren, J. Wang, "Enhancing Liver Tumor Localization Accuracy by Prior-Knowledge-Guided Motion Modeling and A Biomechanical Model", *Quantitative Imaging in Medicine and Surgery* 9(7), 1337-1349 (2019).
23.	**Y. Zhang***, A. H. Le (co-first author), Z. Tian, T. Chiu, X. Gu, A. Pugachev, R. Reynolds, Y. Park, M.H. Lin, S. Stojadinovic, "Modeling Elekta VersaHD using the Varian Eclipse treatment planning system for photon beams: a single-institution experience", *Journal of Applied Clinical Medical Physics* 20:10, 33-42 (2019).
24.	**Y. Zhang***, T. Chiu, J. Dubas, Z. Tian, P. Lee, X. Gu, Y. Yan, D. Sher, R. Timmerman, B. Zhao, "Benchmarking Techniques for Stereotactic Body Radiotherapy for Early-Stage Glottic Laryngeal Cancer: LINAC-Based Non-Coplanar VMAT vs. Cyberknife Planning", *Radiation Oncology*, 14:193 (2019).
25.	**Y. Zhang***, X. Huang, J. Wang, "Advanced 4D-CBCT reconstruction by combining motion estimation, motion-compensated reconstruction, biomechanical modeling and deep learning", *Visual Computing for Industry, Biomedicine, and Art* **2,** 23 (2019).
26.	Y. Chen , F. F. Yin, Y. Zhang, **Y. Zhang**, L. Ren, "Low dose cone-beam computed tomography reconstruction via hybrid prior contour based total variation regularization (hybrid-PCTV)", *Quantitative Imaging in Medicine and Surgery* 9(7), 1214-1228 (2019).
27.	X. Li, J. Wu, M. Palta, **Y. Zhang**, Y. Sheng, J. Zhang, C. Wang, "A Collimator Setting Optimization Algorithm for Dual-arc Volumetric Modulated Arc Therapy in Pancreas Stereotactic Body Radiation Therapy", *Technology in Cancer Research and Treatment*,1533033819870767 (2019).
28.	D. Shrestha, M. Tsai, N. Qin, **Y. Zhang**, X. Jia, and J. Wang, "Dosimetric Evaluation of 4D-CBCT Reconstructed by Simultaneous Motion Estimation and Image Reconstruction (SMEIR) for Carbon Ion Therapy of Lung Cancer", *Medical Physics* 46 (2019).
29.	Y. Chi, C. Shen, B. Li, **Y. Zhang**, M. Yang, M. Folkert, X. Jia, "A method to reconstruct intra-fractional liver motion in rotational radiotherapy using linear fiducial markers", *Physics in Medicine and Biology* 64, 225013 (2019).
30.	S. Niu, **Y. Zhang**, Y. Zhong, G. Yu, J. Ma and J. Wang, "Iterative reconstruction for photon-counting CT using prior image constrained total generalized variation", *Computers in Biology and Medicine* 103, 167-182 (2018).

31.	X. Huang, **Y. Zhang*** (co-first author), J. Wang, "A biomechanical modeling-guided simultaneous motion estimation and image reconstruction technique (SMEIR-Bio) for 4D-CBCT reconstruction", *Physics in Medicine and Biology* 63, 045002 (2018).
32.	Shrestha, N. Qin, **Y. Zhang**, F. Kalantari, S. Niu, X. Jia, A. Pompos, S. Jiang and J. Wang, "Iterative reconstruction with boundary detection for carbon ion computed tomography", *Physics in Medicine and Biology 63,* 055002 (2018).
33.	Y. Chen, F.F. Yin, Y. Zhang, **Y. Zhang**, L. Ren, "Low dose CBCT reconstruction via prior contour based total variation (PCTV) regularization: a feasibility study", *Physics in Medicine and Biology* 63, 085014 (2018).
34.	Y. Zhong, F.K. Mahmoudabadi, **Y. Zhang**, Y. Shao, J. Wang, "Quantitative 4D-PET reconstruction for small animal using SMEIR-reconstructed 4D-CBCT", *IEEE Transactions on Radiation and Plasma Medical Sciences* 2(4), 2018.
35.	C. Zhao, Y. Zhong, X. Duan, **Y. Zhang**, X. Huang, J. Wang, M. Jin, "4D cone-beam computed tomography (CBCT) using a moving blocker for simultaneous radiation dose reduction and scatter correction", *Physics in Medicine and Biology* 63, 115007 (2018).
36.	W. Harris, F.F. Yin, C. Wang, **Y. Zhang**, J. Cai, L. Ren, "Accelerating volumetric cine MRI (VC-MRI) using undersampling for real-time 3D target localization/tracking in radiation therapy: a feasibility study", *Physics in Medicine and Biology* 63, 01NT01 (2018).
37.	**Y. Zhang***, J.N. Tehrani, J. Wang, "A biomechanical modeling guided CBCT estimation technique", *IEEE Transactions on Medical Imaging* 36, 641-652 (2017).
38.	**Y. Zhang***, J. Ma, P. Iyengar, Y. Zhong, J. Wang, "A new CT reconstruction technique using adaptive deformation recovery and intensity correction (ADRIC)", *Medical Physics* 44 (2017).
39.	**Y. Zhang***, L. Ren, I. Vergalasova, F.F. Yin, "Clinical study of orthogonal-view phase-matched digital tomosynthesis for lung tumor localization", *Technology in Cancer Research and Treatment,* 1533034617705716 (2017).
40.	W. Harris, **Y. Zhang**, F.F. Yin, L. Ren, "Estimating 4D-CBCT from prior information and extremely limited angle projections using structural PCA and weighted free-form deformation for lung radiotherapy", *Medical Physics* 44 (2017).
41.	L. Ouyang, M. Folkerts, **Y. Zhang**, B. Hrycushko, R. Lamphier, P. Lee, E. Chambers, E. Ramirez, R. Reynolds, Y. Yan, S. Jiang, R. Timmerman, N. Desai, R. Abdulrahman and X. Gu, "Volumetric modulated arc therapy based total body irradiation: workflow and clinical experience with an indexed rotational immobilization system", *Physics and Imaging in Radiation Oncology* 4, 22-25 (2017).
42.	Y. Zhang, F.F. Yin, **Y. Zhang**, L. Ren, "Reducing scan angle using adaptive prior knowledge for a limited-angle intrafraction verification (LIVE) system for conformal arc radiotherapy", *Physics in Medicine and Biology* 62, 3859-3882 (2017).
43.	R. Mao, L. Tian, **Y. Zhang**, L. Ren, R. Gao, F.F. Yin and H. Ge, "Dosimetric analysis of microscopic disease in SBRT for lung cancers", *Technology in Cancer Research and Treatment,* 1533034617734689 (2017).
44.	L. Zhang, Y. Zhang, **Y. Zhang**, W. Harris, F.F. Yin, J. Cai and L. Ren, "Markerless 4D-CBCT projection phase sorting using prior knowledge and patient motion modeling: a feasibility study", *Cancer Translational Medicine 3,*185-193 (2017).
45.	X. Chen, L. Ouyang, H. Yan, X. Jia, B. Li, Q. Lyu, **Y. Zhang**, and J. Wang, "Optimization of the geometry and speed of a moving blocker system for cone-beam computed tomography scatter correction", *Medical Physics* 44 (2017).
46.	L. Ren, Y. Chen, **Y. Zhang**, W. Giles, J. Jin, F.F. Yin, "Scatter reduction and correction for dual-source cone-beam CT using prepatient grids", *Technology in Cancer Research and Treatment* 15, 416-427 (2016).
47.	W. Harris, L. Ren, J. Cai, **Y. Zhang**, Z. Chang, F.F. Yin, "A technique for generating volumetric cine-magnetic resonance imaging", *International Journal of Radiation Oncology, Biology, Physics* 95, 844-853 (2016).

48.	H. Zhang, L. Ren, V. Kong, W. Giles, **Y. Zhang**, J.Y. Jin, "An interprojection sensor fusion approach to estimate blocked projection signal in synchronized moving grid-based CBCT system", *Medical Physics* 43, 268 (2016).
49.	**Y. Zhang***, F.F. Yin, L. Ren, "Dosimetric verification of lung cancer treatment using the CBCTs estimated from limited-angle on-board projections", *Medical Physics* 42, 4783-4795 (2015).
50.	**Y. Zhang***, F.F. Yin, T. Pan, I. Vergalasova, L. Ren, "Preliminary clinical evaluation of a 4D-CBCT estimation technique using prior information and limited-angle projections", *Radiotherapy and Oncology* 115, 22-29 (2015).
51.	Y. Sheng, T. Li, **Y. Zhang**, W.R. Lee, F.F. Yin, Y. Ge, Q.J. Wu, "Atlas-guided prostate intensity modulated radiation therapy (IMRT) planning", *Physics in Medicine and Biology* 60, 7277-7291 (2015).
52.	J. Yang, H. Wang, **Y. Zhang**, Y. Yin, "Evaluation of GMI and PMI diffeomorphic-based demons algorithms for aligning PET and CT Images", *Journal of Applied Clinical Medical Physics* 16, 5148 (2015).
53.	J. Cai, **Y. Zhang**, I. Vergalasova, F. Zhang, W. Segars, F. Yin, "An integrated simulation system based on digital human phantom for 4D radiation therapy of lung cancer", *Journal of Cancer Therapy* 5, 749-758 (2014).
54.	L. Ren, **Y. Zhang**, F.F. Yin, "A limited-angle intrafraction verification (LIVE) system for radiation therapy", *Medical Physics* 41, 020701 (2014).
55.	**Y. Zhang***, F.F. Yin, W.P. Segars, L. Ren, "A technique for estimating 4D-CBCT using prior knowledge and limited-angle projections", *Medical Physics* 40, 121701 (2013).
56.	**Y. Zhang***, L. Ren, C.C. Ling, F.F. Yin, "Respiration-phase-matched digital tomosynthesis imaging for moving target verification: a feasibility study", *Medical Physics* 40, 071723 (2013).
57.	T. Li, Q. Wu, **Y. Zhang**, I. Vergalasova, W.R. Lee, F.F. Yin, Q.J. Wu, "Strategies for automatic online treatment plan reoptimization using clinical treatment planning system: a planning parameters study", *Medical Physics* 40, 111711 (2013).

Reviews, Chapters, Monographs and Editorials

1.	T. Chiu, D. Parsons, Z. Xiong, R. Reynolds, **Y. Zhang**, "Chapter 10: 3D printed phantoms in RT", *3D Printing in Radiation Oncology: A Handbook, Taylor & Francis,* Jun. 2024
2.	**Y. Zhang**, W. Harris, J. Wang, L. Ren, "Chapter 22: Virtual CT for Abdominal IGRT", *Principle and Practice of Image-guided Abdominal Radiation Therapy*, *Institute of Physics Publishing*, Feb. 2023
3.	**Y. Zhang**, J. Wang, X. Jia, "Chapter 13: Uncertainties of IGRT for Abdominal Cancer Radiotherapy", *Principle and Practice of Image-guided Abdominal Radiation Therapy*, *Institute of Physics Publishing*, Feb. 2023
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4.	J. Xie, H. Shao, Y. Li, **Y. Zhang**, " Prior Frequency Guided Diffusion Model for Limited Angle (LA)-CBCT Reconstruction", *8th International Conference on Image Formation in X-Ray Computed Tomography*, Oral Presentation, 2024
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7.	Y. Gonzalez, L. Chen, H. Lee, N. Kim, M. Arbab, P. Alluri, Y. Zhang, T. Chiu, Z. Iqbal, T. Zhuang, B. Cai, H. Kim, Y. Park, R. Timmerman, M. Lin, A. Rahimi, D. Parsons, "Dosimetric comparison of stereotactic accelerated partial breast irradiation modalities", *ASTRO Annual Meeting*, Oral Presentation, 2023
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11.	H. Shao, Y. Li, T. Mengke, **Y. Zhang**, "Dynamic MR Image Reconstruction Using Spatial and Temporal Implicit Neural Representation Learning (STINR-MR)", *AAPM Annual Meeting*, Oral Presentation, 2023
12.	H. Shao, Y. Li, T. Pan, **Y. Zhang**, "Novel View Synthesis of Dynamic Cone-Beam Projections Using Implicit Neural Representation (CBP-INR)", *AAPM Annual Meeting*, Oral Presentation, 2023
13.	**Y. Zhang**, S. Wang, C. Kabat, V. Iakovenko, S. Stojadinovic, T. Zhuang, N. Desai, Z. Wardak, A. Pompos, M. Lin, W. Lu, A. Owrangi, J. Deng, T. Banks. T. Dan, T. Chiu, "Feasibility of Simulation and Planning Omitted Radiotherapy (SPORT) for Emergency Treatment of Malignant Spinal Cord Compression Syndrome Using MR-Linac", *AAPM Annual Meeting*, 2023
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20.	L. Chen, D. Shrestha, J. Park, D. Parsons, Y. Park, A. Rahimi, M. Arbab, P. Alluri, N. Kim, **Y. Zhang**, "Treatment Margin Optimization for Breast Patients with Internal Mammary Irradiation", *AAPM Annual Meeting,* 2023
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