

Steve B. Jiang, Ph.D.

Department of Radiation Oncology, University of Texas Southwestern Medical Center

Education

- 1998 **Ph.D.** in *Radiation Therapy Physics (Medical Physics)*, Dept. of Radiation Therapy, Medical College of Ohio, Toledo, Ohio
- 1993 **M.Sc.** in *Radiation Physics*, Sichuan University, Chengdu, Sichuan, China
- 1990 **B.Sc.** in *Theoretical Physics*, Sichuan University, Chengdu, Sichuan, China

Positions

- 2013 – present **Vice Chair**, Dept. of Radiation Oncology, University of Texas Southwestern Medical Center
- 2013 – present **Director**, Division of Medical Physics and Engineering, Dept. of Radiation Oncology, University of Texas Southwestern Medical Center
- 2013 – present **Professor of Radiation Oncology** (with tenure), Dept. of Radiation Oncology, University of Texas Southwestern Medical Center
- 2013 – present **Barbara Crittenden Professorship in Cancer Research**, University of Texas Southwestern Medical Center
- 2012 – 2013 **Professor** (with tenure), Dept. of Radiation Medicine and Applied Sciences, University of California San Diego
- 2011 – 2012 **Professor** (with tenure), Dept. of Radiation Oncology, University of California San Diego
- 2007 – present **Executive Director** of Center for Advanced Radiotherapy Technologies, University of California San Diego
- 2007 – present **Director** of Division of Technology Research, Dept. of Radiation Oncology, University of California San Diego
- 2007 – 2011 **Associate Professor** (with tenure), Dept. of Radiation Oncology, University of California San Diego
- 2000 - 2007 **Assistant Professor**, Dept. of Radiation Oncology, Massachusetts General Hospital and Harvard Medical School
- 1998 - 2000 **Postdoctoral Fellow**, Dept. of Radiation Oncology, Stanford University School of Medicine
- 1993 - 1995 **Research Associate**, Institute of Nuclear Science and Technology, Sichuan University, Chengdu, Sichuan, China

Awards and Honors

- 2013 Senior author of 2 papers ranked top 10 most downloaded papers in *Physics in Medicine and Biology* in 2012
- 2012 Elected **Fellow**, American Association of Physicists in Medicine
- 2011 2011 Regional Health Care Innovation Challenge Awards, Southern California Healthcare Technology Acceleration Program, UCSD von Liebig Center
- 2011 Senior author of 3 papers ranked top 5 most highly-cited papers in *Physics in Medicine and Biology* in the last two years as of June 29, 2011

2011	Senior author of one paper ranked No. 4 most highly cited paper published in <i>Physics in Medicine and Biology</i> in the past 5 years (2006 -2010)
2011	UCSD Academic Senate Foreign Travel Award
2010	Senior author of the cover paper of the November issue of <i>Medical Physics</i>
2010	Senior author of two papers ranked among top 10 most highly cited papers published in <i>Physics in Medicine and Biology</i> in the past 5 years (2005 -2009)
2010	Named a finalist for the Health Care Champion Award in Health Care Innovation & Research category by <i>San Diego Business Journal</i>
2010	UCSD Academic Senate Foreign Travel Award
2008	Visiting Professor , Medical Physics Graduate Program, University of Chicago
2008	Senior author of three papers ranked among top 10 most highly cited papers published in <i>Physics in Medicine and Biology</i> in the past 5 years (2003 -2007)
2007	Senior author of an article being chosen as one of the 30 best articles of the year published by <i>Physics in Medicine and Biology</i>
2006	Senior author of an article being chosen as one of the 25 best articles of the year published by <i>Physics in Medicine and Biology</i>
2004-present	Fellow , The Institute of Physics, England
2000	Resident Clinical/Basic Science Research Award , The American Society for Therapeutic Radiology and Oncology
2000	Post-doctoral Traineeship Award , US Department of Defense Breast Cancer Research Program
03/2000-06/2000	Chief Medical Physics Resident , Dept of Radiation Oncology, Stanford University
1992	Outstanding Research Paper Award , Sichuan Association of Science and Technology

Awards Received by Students under My Supervision

2013	Carrie Jiang Graves , Graduate Student Researcher, Norm Baily Student Research Award
2013	Zhen Tian , Postdoctoral Fellow, Norm Baily Postdoctoral/Resident Research Award
2013	Feng Shi , Postdoctoral Fellow, Norm Baily Postdoctoral/Resident Research Award
2012	Hao Yan , Postdoctoral Fellow, Norm Baily Postdoctoral/Resident Research Award
2012	Masoud Zarepisheh , Postdoctoral Fellow, Norm Baily Postdoctoral/Resident Research Award
2012	Xin Zhen , Graduate Student Researcher, Norm Baily Student Research Award
2011	Xun Jia , Postdoctoral Fellow, Resident Clinical/Basic Science Research Award, 53rd ASTRO'S Annual Meeting in Miami
2011	Xuejun Gu , Postdoctoral Fellow, Norm Baily Postdoctoral/Resident Research Award
2011	Xun Jia , Postdoctoral Fellow, Thrasher Research Fund Early Career Award
2010	Xuejun Gu , Postdoctoral Fellow, NCI Ruth L. Kirschstein National Research Service Award for Individual Postdoctoral Fellows
2010	Miriam Graf , Graduate Student Researcher, Predoctoral Traineeship Award of the Department of Defense Breast Cancer Research Program
2010	Ruijiang Li , Postdoctoral Fellow, Resident Clinical/Basic Science Research Award, 52nd ASTRO'S Annual Meeting in San Diego

- 2010 **Xun Jia**, Postdoctoral Fellow, Young Investigator Award (1st place) at ICCR 2010
- 2010 **Chunhua Men**, Postdoctoral Fellow, Norm Baily Postdoctoral/Resident Research Award
- 2010 **Xun Jia**, Postdoctoral Fellow, Norm Baily Postdoctoral/Resident Research Award
- 2010 **Xuejun Gu**, Postdoctoral Fellow, Norm Baily Postdoctoral/Resident Research Award
- 2010 **Zhen Tian**, Graduate Student Researcher, Norm Baily Student Research Award
- 2010 **Carrie Jiang**, Graduate Student Researcher, Norm Baily Student Research Award
- 2010 **Michael Folkerts**, Undergraduate Student Researcher, UCSD McNair Scholar
- 2010 **Miriam Graf**, Graduate Student Researcher, AWIS-SD Scholarship
- 2009 **Michael Folkerts**, Undergraduate Student Researcher, Dean's Undergraduate Award for Excellence
- 2009 **Ruijiang Li**, Postdoctoral Fellow, Poster Recognition Award, 51st ASTRO'S Annual Meeting in Chicago

Professional Activities

- 2015 - **Steering Committee**, UT Southwestern Medical Center Biomedical Engineering Graduate Program
- 2015 - **Steering Committee**, Bioinformatics Core Facility at UT Southwestern Medical Center
- 2015 **Chair**, Track 4: Radiation Oncology, World Congress on Medical Physics & Biomedical Engineering, June 7-12, 2015, Toronto, Canada
- 2015 **Abstract Reviewer**, 2015 AAPM Meeting, Anaheim, CA
- 2015 **Abstract Reviewer**, 2015 57th PTCOG, San Diego, CA
- 2015 **Abstract Reviewer**, 2015 ASTRO Meeting, San Antonio, TX
- 2015 **Grant Reviewer**, RSNA Radiation Oncology Research Study Section
- 2015 **Grant Reviewer**, NIH-NIBIB Low-Dose CT Imaging (U01) Review Panel
- 2014 - **Appointed Member**, NIH Biomedical Imaging Technology B Study Section
- 2014 **Abstract Reviewer**, 2014 AAPM Meeting, Austin, Texas
- 2014 **Grant Reviewer**, NIH-NIBIB Low-Dose CT Imaging (U01) Review Panel
- 2011 **Ad Hoc Grant Reviewer**, NIH Biomedical Imaging Technology B Study Section
- 2013 **Moderator**, IMRT Optimization, Plan Evaluation, and Robustness Analysis, 2013 AAPM Meeting, Indianapolis, IN
- 2013 **Moderator**, Cone-Beam CT, 2013 AAPM Meeting, Indianapolis, IN
- 2013 **Moderator**, Advances in Monte Carlo Dose Calculations, 2013 AAPM Meeting, Indianapolis, IN
- 2013 **Moderator**, Real-time imaging and Motion Management, 2013 AAPM Meeting, Indianapolis, IN
- 2013 - **Associate Editor** of *Med Phys*
- 2013 **Grant Reviewer**, NIH 2013/08 ZCA1 SRLB-Y (O1) S, Comprehensive Partnerships to Advance Cancer Health Equity
- 2013 **Grant Reviewer**, NIH 2013/10 ZRG1 OTC-R (11) B, Small Business: Radiation Therapy and Biology
- 2013 **Grant Reviewer**, NIH 2013/10 ZRG1 DTCS-A (81) S, Translational/clinical study section
- 2013 Co-Chair, Merits/Promotions Committee, UCSD Dept of Radiation Medicine & Applied Sciences

2013 **Abstract Reviewer**, 2013 AAPM Meeting, Indianapolis, Indiana

2013 **Grant Reviewer**, NCI SBIR proposals session on “Innovative Radiation Sources for Advanced Radiotherapy Equipment”

2013 **Abstract Reviewer**, 2013 ASTRO Meeting, Atlanta, GA

2013 **Grant Reviewer**, NIH-NIBIB Low-Dose CT Imaging (U01) Review Panel

2013 **Grant Reviewer**, Alberta Innovates – Health Solutions (AIHS), Canada

2013 **External Examiner**, Ph.D. Dissertation, University of British Columbia, Canada

2012 **Grant Reviewer**, Canadian Institutes of Health Research

2012 **Moderator**, Dose Calculation: Non-Monte Carlo, 2012 AAPM Meeting, Charlotte, NC

2012 **Grant Reviewer**, The Portuguese Foundation for Science and Technology (FCT)

2012 **Grant Reviewer**, Helmholtz-Association of German Research Centres

2012 **Grant Reviewer**, Research Foundation - Flanders (Fonds Wetenschappelijk Onderzoek - Vlaanderen, FWO)

2012 **Abstract Reviewer**, 2012 ASTRO Meeting, Boston, MA

2012 **Abstract Reviewer**, 2012 AAPM Meeting, Charlotte, NC

2011 **Ad Hoc Grant Reviewer**, NIH Biomedical Imaging Technology B Study Section

2011 **Course Director**, 3rd Short Course on GPU Programming for Medical Physics and Medical Imaging Research

2011 **Plenary Speaker**, The 2011 International workshop on Recent Advances in Biomedical Imaging, Shanghai, China

2011 **Faculty**, The 2011 summer school on Medical Imaging and Applications, Shanghai Jiao Tong University, Shanghai, China

2011 **Organizer and Moderator**, Therapy Symposium: The Present and Future of Online Adaptive Radiotherapy, 2011 AAPM/COMP Meeting, Vancouver, Canada

2011 **Moderator**, Treatment Delivery & Verification: Intensity-Modulated Photons, 2011 AAPM/COMP Meeting, Vancouver, Canada

2011 **Abstract Reviewer**, 2011 AAPM/COMP Meeting, Vancouver, Canada

2011 **Course Director**, 2nd Short Course on GPU Programming for Medical Physics and Medical Imaging Research

2010 **Course Director**, 1st Short Course on GPU Programming for Medical Physics and Medical Imaging Research

2010 **Grant Reviewer**, Collaborative Health Research Projects (CHRP) Program, Natural Sciences and Engineering Research Council of Canada (NSERC) and the Canadian Institutes of Health Research (CIHR)

2010 **Moderator**, Patient Positioning and Tracking, 52nd ASTRO Annual Meeting, San Diego, CA

2010 **Grant Reviewer**, UCSD Moores Cancer Center ACS-IRG grants

2010 **Member**, USCD Committee on Extended Studies & Public Service

2010 **Session Chair**, MICCAI 2010 Workshop On Computational Imaging Biomarkers For Tumors: From Qualitative To Quantitative, Beijing, China, September 20, 2010

2010 **Program Committee**, International Workshop on Machine Learning in Medical Imaging (MLMI), Beijing, China, September 20, 2010

2010 **Organizer and Moderator**, Therapy Symposium: Applications of Graphics Processing Units (GPUs) in Radiotherapy, 52nd AAPM Annual Meeting, Philadelphia, Pennsylvania

2010 **Organizer and Moderator**, Therapy Symposium: Applications of Machine Learning in Radiotherapy, 52nd AAPM Annual Meeting, Philadelphia, Pennsylvania

2010 **Session Chair**, Image Guided Radiation Therapy II, 52nd AAPM Annual Meeting, Philadelphia, Pennsylvania

2010 **Session Chair**, Image Guided Radiation Therapy I, 52nd AAPM Annual Meeting, Philadelphia, Pennsylvania

2010- **Academic Personnel Committee**, UCSD Radiation Oncology Department

2010-2011 **Co-Chair**, Task Group for Organ Motion in Radiotherapy Planning and Treatment, ASTRO Evaluation Subcommittee of the Emerging Technology Committee

2010 **Abstract Reviewer**, 52th AAPM Annual Meeting, Philadelphia, Pennsylvania

2010 **Organizing Committee**, Workshop on Mathematical Problems, Models and Methods in Biomedical Imaging, UCLA Institute of Pure and Applied Mathematics, February 8 - 12, 2010

2010-2012 **Associate Editor of *Med Phys***

2010- **Editorial Board of *Phys Med Biol***

2009- **Research Committee**, UCSD Radiation Oncology Department

2009 **Special Session Co-Chair**, Machine Learning Methods for Modeling Treatment Outcomes in Cancer and Radiation Therapy, International Conference on Machine Learning and Application, Miami Beach, Florida

2009 **Session Chair**, Correction Strategies, 51st AAPM Annual Meeting, Anaheim, California

2009 **Abstract Reviewer**, 51th AAPM Annual Meeting, Anaheim, California

2008 **Local Arrangements Chair**, International Conference on Machine Learning and Application, San Diego, CA

2008 **Special Session Co-Chair**, Machine Learning Applications in Radiotherapy, International Conference on Machine Learning and Application, San Diego, CA

2008 **Session Chair**, Reinforcement Learning and Markov Process, International Conference on Machine Learning and Application, San Diego, CA

2008 **Session Chair**, Non-Tomographic Localization, 50th AAPM Annual Meeting, Houston, Texas

2008- **Member**, AAPM Therapy Imaging Subcommittee

2008 **Abstract Reviewer**, 50th AAPM Annual Meeting, Houston, Texas

2007- **Member**, AAPM Task Group 157, Commissioning of beam models in Monte Carlo-based clinical treatment planning

2007 **Session Chair**, Localization I, 49th AAPM Annual Meeting, Minneapolis, Minnesota

2007 **Abstract Reviewer**, 49th AAPM Annual Meeting, Minneapolis, Minnesota

2007 **Faculty**, 2007 Quality Assurance of Radiation Therapy and the Challenges of Advanced Technologies, Dallas, Texas

2007 **Abstract Reviewer**, XVth International Conference on the Use of Computers in Radiation Therapy, Toronto, Canada

2006 **Session Chair**, 4D: Tracking the target, ESTRO 25, Leipzig, Germany

2006 **Moderator**, Symposium in Memoriam of Edward Webster: In-Room Non-Tomographic Guidance of Radiotherapy, 48th AAPM Annual Meeting, Orlando, Florida

2006 **Session Chair**, IMRT Verification and QA I, 48th AAPM Annual Meeting, Orlando, Florida

2006 **Faculty**, AAPM Summer School

2006 **Grant Reviewer**, Congressionally Directed Medical Research Program (CDMRP) Breast Cancer Research Program (BCRP)

2006 **Abstract Reviewer**, 48th ASTRO Annual Meeting, Philadelphia, PA

2006 **Abstract Reviewer**, 48th AAPM Annual Meeting, Orlando, FL

2006 **Moderator**, Motion Compensation and 4D Techniques, Varian Research Partnership Symposium, Charleston, SC

2005 **Moderator**, Interfraction Image Guidance Strategies, 47th ASTRO Annual Meeting, Denver, CO

2005 **Poster Discussion Moderator**, Online and Real-time Image-Guided Radiotherapy, 47th AAPM Annual Meeting, Seattle, WA

2005 **Abstract Reviewer**, 47th AAPM Annual Meeting, Seattle, WA

2005 **Co-organizer**, MGH IGRT Workshop 2005

2004 **Poster Discussion Moderator**, Monte Carlo, 46th AAPM Annual Meeting, Pittsburgh, PA

2004 **Abstract Reviewer**, 46th AAPM Annual Meeting, Pittsburgh, PA

2004 **Grant Reviewer**, US Army's Congressionally Directed, Peer Reviewed Medical Research Program (PRMRP)

2004-2009 **International Advisory Board** of *Phys Med Biol* journal

2003 **Abstract Reviewer**, 45th AAPM Annual Meeting, San Diego, California

2003-2009 **Member**, AAPM Task Group 104, The Role of In-Room kV X-Ray Imaging for Patient Setup and Target Localization

2002-2007 **Member**, AAPM Task Group 75, The Management of Imaging Dose During Image-guided Radiotherapy

2002-2006 **Member**, AAPM Task Group 76, Management of Respiratory Motion in Radiation Oncology

2002 **Session Chair**, IMRT Optimization 2, 44th AAPM Annual Meeting, Montreal, Canada

2002 **Abstract Reviewer**, 44th AAPM Annual Meeting, Montreal, Canada

2002 **Grant Reviewer**, CancerCare Manitoba

2001 **Session Chair**, Therapy - Monte Carlo Calculations, 43rd AAPM Annual Meeting, Salt Lake City, Utah

2001 **Abstract Reviewer**, 43rd AAPM Annual Meeting, Salt Lake City, Utah

Professional Affiliations

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

Peer Reviewed Journal Papers (Google Scholar H-Index: 54)

1. Song T, Staub D, Chen M, Lu W, Tian Z, Jia X, Li Y, Zhou L, **Jiang SB**, Gu X, Patient-specific dosimetric endpoints based treatment plan quality control in radiotherapy, *Phys Med Biol.* 60(21):8213-8227, 2015.
2. Tian Z, Li Y, Folkerts M, Shi F, **Jiang SB**, Jia X, An analytic linear accelerator source model for GPU-based Monte Carlo dose calculations, *Phys Med Biol.* 60(20):7941-67, 2015.

3. Tian Z, Shi F, Folkerts M, Qin N, **Jiang SB**, Jia X, A GPU OpenCL based cross-platform Monte Carlo dose calculation engine (goMC), *Phys Med Biol.* 60(19):7419-35, 2015.
4. Zhen H, Hrycushko B, Lee H, Timmerman R, Pompoš A, Stojadinovic S, Foster R, **Jiang SB**, Solberg T, Gu X, Dosimetric comparison of Acuros XB with collapsed cone convolution/superposition and anisotropic analytic algorithm for stereotactic ablative radiotherapy of thoracic spinal metastases, *J Appl Clin Med Phys.* 6(4):5493, 2015.
5. Tian Z, Peng F, Folkerts M, Tan J, Jia X, **Jiang SB**, Multi-GPU implementation of a VMAT treatment plan optimization algorithm, *Med Phys.* 42(6):2841-52, 2015.
6. Xu Y, Yan H, Ouyang L, Wang J, Zhou L, Cervino L, **Jiang SB**, Jia X, A method for volumetric imaging in radiotherapy using single x-ray projection, *Med Phys.* 42(5):2498-509, 2015.
7. Xu Y, Bai T, Yan H, Ouyang L, Pompos A, Wang J, Zhou L, **Jiang SB**, Jia X, A practical cone-beam CT scatter correction method with optimized Monte Carlo simulations for image-guided radiation therapy, *Phys Med Biol.* 60(9):3567-87, 2015.
8. Graves YJ, Smith AA, Mcilvena D, Manilay Z, Lai YK, Rice R, Mell L, Jia X, **Jiang SB**, Cerviño L, A deformable head and neck phantom with in-vivo dosimetry for adaptive radiotherapy quality assurance, *Med Phys.* 42(4):1490, 2015.
9. Peng F, **Jiang SB**, Romeijn HE, Epelman MA, VMATc: VMAT with constant gantry speed and dose rate, *Phys Med Biol.* 60(7):2955-79, 2015.
10. Sipes T, **Jiang SB**, Moore K, Li N, Karimabadi H, and Barr JR, Anomaly Detection in Healthcare: Detecting Erroneous Treatment Plans in Time Series Radiotherapy Data, *International Journal of Semantic Computing*, 8(3): 257–278, 2014.
11. Yan H, Wang X, Shi F, Bai T, Folkerts M, Cervino L, **Jiang SB**, Jia X, Towards the clinical implementation of iterative low-dose cone-beam CT reconstruction in image-guided radiation therapy: Cone/ring artifact correction and multiple GPU implementation, *Med Phys*, 41(11):111912, 2014 (Featured Article).
12. Tian Z, Graves YJ, Jia X, **Jiang SB**, Automatic commissioning of a GPU-based Monte Carlo radiation dose calculation code for photon radiotherapy, *Phys Med Biol*, 59(21):6467-86, 2014.
13. Yan H, Zhen X, Folkerts M, Li Y, Pan T, Cervino L, **Jiang SB**, Jia X, A hybrid reconstruction algorithm for fast and accurate 4D cone-beam CT imaging, *Med Phys*, 41(7):071903, 2014.
14. Zarepisheh M, Long T, Li N, Tian Z, Romeijn HE, Jia X, **Jiang SB**, A DVH-guided IMRT optimization algorithm for automatic treatment planning and adaptive radiotherapy replanning, *Med Phys*, 41(6):061711, 2014.
15. Cai JF, Jia X, Gao H, **Jiang SB**, Shen Z, Zhao H, Cine cone beam CT reconstruction using low-rank matrix factorization: algorithm and a proof-of-principle study, *IEEE Trans Med Imaging*, 33(8):1581-91, 2014.
16. Zarepisheh M, Uribe-Sanchez AF, Li N, Jia X, **Jiang SB**, A multicriteria framework with voxel-dependent parameters for radiotherapy treatment plan optimization, *Med Phys.* 41(4):041705-1:10(2014).
17. Montanari D, Scolari E, Silvestri C, Graves YJ, Yan H, Cervino L, Rice R, **Jiang SB**, Jia X, Comprehensive evaluations of cone-beam CT dose in image-guided radiation therapy via GPU-based Monte Carlo simulations, *Phys Med Biol.* 59(5):1239-53 (2014).
18. Zhen X, Yan H, Zhou L, Jia X, **Jiang SB**, Deformable image registration of CT and truncated cone-beam CT for adaptive radiation therapy, *Phys Med Biol.* 58(22):7979-7993, 2013.
19. Townson RW, Jia X, Tian Z, Graves YJ, Zavgorodni S, **Jiang SB**, GPU-based Monte Carlo radiotherapy dose calculation using phase-space sources, *Phys Med Biol.* 58(12):4341-56, 2013.
20. Yan H, Zhen X, Cerviño L, **Jiang SB**, Jia X, Progressive cone beam CT dose control in image-guided radiation therapy, *Med Phys.* 40(6):060701, 2013.

21. Zhang Y, Yan H, Jia X, Yang J, **Jiang SB**, Mou X, A hybrid metal artifact reduction algorithm for x-ray CT, *Med Phys.* 40(4):041910-1-17, 2013.
22. Gu X, Dong B, Wang J, Yordy J, Mell L, Jia X, **Jiang SB**, A contour-guided deformable image registration algorithm for adaptive radiotherapy, *Phys Med Biol.* 58(6):1889-1901, 2013.
23. Zarepisheh M, Shakourifar M, Trigila G, Ghomi PS, Couzens S, Abebe A, Noreña L, Shang W, **Jiang SB**, Zinchenko Y, A moment-based approach for DVH-guided radiotherapy treatment plan optimization, *Phys Med Biol.* 58(6):1869-1887, 2013.
24. Graves YJ, Jia X, **Jiang SB**, Effect of statistical fluctuation in Monte Carlo based photon beam dose calculation on gamma index evaluation, *Phys Med Biol.* 58(6):1839-1853, 2013.
25. Yan H, Wang X, Yin W, Pan T, Ahmad M, Mou X, Cerviño L, Jia X, **Jiang SB**, Extracting respiratory signals from thoracic cone beam CT projections, *Phys Med Biol.* 58(5):1447-64, 2013.
26. Jia X, Yan H, Cerviño L, Folkerts M, **Jiang SB**, A GPU tool for efficient, accurate, and realistic simulation of cone beam CT projections, *Med Phys.* 39(12):7368-7378, 2012.
27. Dong B, Graves YJ, Jia X, **Jiang SB**, Optimal surface marker locations for tumor motion estimation in lung cancer radiotherapy, *Phys Med Biol.* 57(24):8201-8215, 2012.
28. Gu C, Li R, Zhang H, Fung A, Torres C, **Jiang SB**, and Li C, Accurate Respiration Measurement Using DC-Coupled Continuous-Wave Radar Sensor for Motion-Adaptive Cancer Radiotherapy, *IEEE Transactions On Biomedical Engineering*, 59(11):3117-3123, 2012.
29. Jia X, Schumann J, Paganetti H, **Jiang SB**, GPU-based fast Monte Carlo dose calculation for proton therapy, *Phys Med Biol.* 57(23):7783-7797, 2012 (featured article).
30. Park JC, Park SH, Kim JH, Yoon SM, Song SY, Liu Z, Song B, Kauwelo K, Webster MJ, Sandhu A, Mell LK, **Jiang SB**, Mundt AJ, Song WY, Liver motion during cone beam computed tomography guided stereotactic body radiation therapy, *Med Phys.* 39(10):6431-42, 2012.
31. Zhen X, Gu X, Yan H, Zhou L, Jia X, **Jiang SB**, CT to cone-beam CT deformable registration with simultaneous intensity correction, *Phys Med Biol.* 57(21):6807-6826, 2012.
32. Pan H, Cerviño LI, Pawlicki T, **Jiang SB**, Alksne J, Detorie N, Russell M, Carter BS, Murphy KT, Mundt AJ, Chen C, Lawson JD, Frameless, real-time, surface imaging-guided radiosurgery: clinical outcomes for brain metastases, *Neurosurgery*, 71(4):844-52, 2012.
33. Jia X, Tian Z, Lou Y, Sonke JJ, **Jiang SB**, Four-dimensional cone beam CT reconstruction and enhancement using a temporal nonlocal means method, *Med Phys* 39(9): 5592--5602, 2012
34. Peng F, Jia X, Gu X, Epelman MA, Romeijn HE, **Jiang SB**, A new column-generation-based algorithm for VMAT treatment plan optimization, *Phys Med Biol.* 57(14):4569-4588, 2012.
35. Cerviño LI, Detorie N, Taylor M, Lawson JD, Harry T, Murphy KT, Mundt AJ, **Jiang SB**, Pawlicki TA, Initial clinical experience with a frameless and maskless stereotactic radiosurgery treatment, *Practical Radiation Oncology*, 2(1): 54-62, 2012
36. Yan H, Cervino L, Jia X, **Jiang SB**, A comprehensive study on the relationship between the image quality and imaging dose in low-dose cone beam CT, *Phys Med Biol.* 57(7):2063-2080, 2012 (downloaded 500 times 11 days after the date publication per PMB) (Top 10 most downloaded paper in PMB in 2012)
37. Khan A, Jensen LG, Sun S, Song WY, Yashar CM, Mundt AJ, Zhang FQ, **Jiang SB**, Mell LK, Optimized Planning Target Volume for Intact Cervical Cancer, *Int J Radiat Oncol Biol Phys.* 2012 Jan 21. [Epub ahead of print]
38. Jia X, Yan H, Gu X, **Jiang SB**, Fast Monte Carlo simulation for patient-specific CT/CBCT imaging dose calculation, *Phys Med Biol.* 57(3):577-590, 2012. (Featured Article) (downloaded 500 times 39 days after the date of publication per PMB) (Top 10 most downloaded paper in PMB in 2012)
39. Jia X, Gu X, Graves YJ, Folkerts M, **Jiang SB**, GPU-based fast Monte Carlo simulation for radiotherapy dose calculation, *Phys Med Biol.* 56(22):7017-7031, 2011. (Feature Article and Editor's

Choice) (Has been downloaded 250 times 30 days after the date of publication per PMB) (Covered by medicalphysicsweb.org).

40. Jia X, Men C, Lou Y, **Jiang SB**, Beam orientation optimization for intensity modulated radiation therapy using adaptive $L_{2,1}$ -minimization, *Phys Med Biol*. 56(19):6205-6222, 2011.
41. Li R, Lewis JH, Jia X, Zhao T, Liu W, Wuenschel S, Lamb J, Yang D, Low DA, **Jiang SB**, On a PCA-based lung motion model, *Phys Med Biol*. 56(18):6009-30, 2011.
42. Tian Z, Jia X, Yuan K, Pan T, **Jiang SB**, Low-dose CT reconstruction via edge-preserving total variation regularization, *Phys Med Biol*. 56(18):5949-5967, 2011.
43. Lewis JH, Li R, Jia X, Watkins WT, Lou Y, Song WY, **Jiang SB**, Mitigation of motion artifacts in CBCT of lung tumors based on tracked tumor motion during CBCT acquisition, *Phys Med Biol*. 56(17):5485-502, 2011.
44. JC Park, SH Park, JS Kim, Y Han, MK Cho, HK Kim, Z Liu, **SB Jiang**, B Song, WY Song, Ultra-fast digital tomosynthesis reconstruction using general-purpose GPU programming for image-guided radiation therapy, *Tech Cancer Res & Treat* 10(4):295-306, 2011.
45. X Jia, B Dong, Y Lou, and **SB Jiang**, GPU-based iterative cone-beam CT reconstruction using tight frame regularization, *Phys Med Biol*. 56(13):3787-3807, 2011.
46. LI Cerviño, J Du, and **SB Jiang**, MRI-guided tumor tracking in lung cancer radiotherapy, *Phys Med Biol*. 56(13):3773-3785, 2011. (Feature Article and Editor's Choice) (Ranked No. 3 most read paper in the last 30 days in PMB as of November 1, 2011)
47. X Jia, Y Lou, J Lewis, R Li, X Gu, C Men, WY Song, and **SB Jiang**, GPU-based fast low-dose cone beam CT reconstruction via total variation, *J Xray Sci Technol*. 19(2):139-154, 2011. (Covered by medicalphysicsweb.org).
48. X Gu, U Jelen, J Li, X Jia, and **SB Jiang**, A GPU-based finite-size pencil beam algorithm with 3D-density correction for radiotherapy dose calculation, *Phys Med Biol*. 56(11): 3337-3350, 2011.
49. R Li, JH Lewis, X Jia, X Gu, M Folkerts, C Men, WY Song, and **SB Jiang**, 3D tumor localization through real-time volumetric x-ray imaging for lung cancer radiotherapy, *Med. Phys.* 38(5), 2783-2794, 2011.
50. Z Tian, X Jia, B Dong, Y Lou, and **SB Jiang**, Low-dose 4DCT reconstruction via temporal nonlocal means, *Med. Phys.* 38(3):1359-1365, 2011.
51. X Gu, X Jia, and **SB Jiang**, GPU-based fast gamma index calculation, *Phys Med Biol*. 56(5): 1431-41, 2011.
52. Tyagi N, Lewis JH, Yashar CM, Vo D, **Jiang SB**, Mundt AJ, Mell LK, Daily Online Cone Beam Computed Tomography to Assess Interfractional Motion in Patients with Intact Cervical Cancer *Int J Radiat Oncol Biol Phys* 80:273-80, 2011.
53. Nath SK, Sandhu AP, Sethi RA, Jensen LG, Rosario MD, Kane CJ, Parsons JK, Millard FE, **Jiang SB**, Rice RK, Pawlicki T, Mundt AJ, Target Localization and Toxicity in Dose-Escalated Prostate Radiotherapy with Image-Guided Approach using Daily Planar Kilovoltage Imaging, *Technol Cancer Res Treat* 10(1):31-7, 2011.
54. C Men, HE Romeijn, X Jia, and **SB Jiang**, Ultrafast treatment plan optimization for volumetric modulated arc therapy (VMAT), *Med Phys* 37(11): 5787-5791, 2010. (Cover Paper)
55. Li R, Jia X, Lewis JH, Gu X, Folkerts M, Men C, **Jiang SB**, Single-projection based volumetric image reconstruction and 3D tumor localization in real time for lung cancer radiotherapy. *Med Image Comput Comput Assist Interv*. 13(Pt 3):449-56, 2010.
56. Y Liang, K Messer, BS Rose, JH Lewis, **SB Jiang**, CM Yashar, AJ Mundt, LK Mell, Impact of bone marrow radiation dose on acute hematologic toxicity in cervical cancer: principal component analysis on high dimensional data, *Int J Radiat Oncol Biol Phys*. 78(3):912-919, 2010.

57. C Men, X Jia, and **SB Jiang**, GPU-based ultra-fast direct aperture optimization for online adaptive radiation therapy, *Phys Med Biol.* 55(15):4309-4319, 2010.
58. R Li, X Jia, JH Lewis, X Gu, M Folkerts, C Men, and **SB Jiang**, Real-time volumetric image reconstruction and 3D tumor localization based on a single x-ray projection image for lung cancer radiotherapy, *Med Phys* 37(6): 2822-2826, 2010.
59. X Jia, X Gu, J Sempau, D Choi, A Majumdar, and **SB Jiang**, Development of a GPU-based Monte Carlo dose calculation code for coupled electron-photon transport, *Phys Med Biol.* 55(11): 3077–3086, 2010. (Top 5 most cited papers in the last 2 years in PMB as of November 1, 2011)
60. JH Lewis, R Li, WT Watkins, JD Lawson, WP Segars, LI Cerviño, WY Song, and **SB Jiang**, Markerless lung tumor tracking and trajectory reconstruction using rotational cone-beam projections: a feasibility study, *Phys Med Biol.* 55(9): 2505-2522, 2010.
61. LI Cerviño, Yan Jiang, Ajay Sandhu, and **SB Jiang**, Tumor motion prediction with the diaphragm as a surrogate: a feasibility study, *Phys Med Biol.* 55(9): N221–N229, 2010.
62. X Jia, Y Lou, R Li, WY Song, and **SB Jiang**, GPU-based fast cone beam CT reconstruction from undersampled and noisy projection data via total variation, *Med Phys* 37(4):1757-1760, 2010.
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Books

1. X Jia and **SB Jiang**, Graphics Processing Unit-based High Performance Computing in Radiation Therapy, *CRC Press*, 2016.

Invited Review Articles/Book Chapters

1. X Jia, P Ziegenhein, **SB Jiang**, GPU-based high-performance computing for radiation therapy, *Phys Med Biol*. 59(4):R151-82 (2014).
2. R LI, L Cervino and **SB Jiang**, Real-time Tumor Localization, in *Motion Adaptation in Radiation Therapy*, Editor: M Murphy, Publisher: Taylor & Francis, 2010, pp 1-11.
3. L Cervino and **SB Jiang**, Intrafraction Variations and Management Technologies, in *Adaptive Radiation Therapy*, Editor: XA Li, Publisher: Taylor & Francis, 2010, pp 203- 216.

4. L Cervino and **SB Jiang**, Respiratory Management Technologies, in *Image-Guided Radiation Therapy: A Clinical Perspective*, Editors: AJ Mundt and JC Roeske, Publisher: PMPH-USA, 2010.
5. AP Sandhu and **SB Jiang**, Respiratory-Gated Kilovoltage Cone Beam Computed Tomography-Guided Stereotactic Body Radiation Therapy in a Stage I Lung Cancer Patient Using the Varian Trilogy System, in *Image-Guided Radiation Therapy: A Clinical Perspective*, Editors: AJ Mundt and JC Roeske, Publisher: PMPH-USA, 2010.
6. JD Lawson, A Sandhu, **SB Jiang**, and AJ Mundt, Emerging Role of Stereotactic Radiotherapy (SRT) in the Treatment of Early Stage Non-Small Cell Lung Cancer, *Current Cancer Therapy Reviews*, 5(4):281-287, 2009.
7. **SB Jiang**, L Mell, and A Sandhu, Lung Cancers, in *Image-Guided and Adaptive Radiation Therapy*, Editors: R Timmerman and L Xing, Publisher: Lippincott Williams & Wilkins, Philadelphia, USA, 2009, pp 191-201.
8. **SB Jiang**, Management of Moving Targets in Radiotherapy, *AAPM Summer School*, 2006.
9. P Giraud, E Yorke, **SB Jiang**, L Simon, K Rosenzweig, G Mageras, Reduction of organ motion effects in IMRT and conformal 3D radiation delivery by using gating and tracking techniques, *Cancer/Radiothérapie*, 10:269-282, 2006.
10. **SB Jiang**, Radiotherapy of Mobile Tumors, *Semin Radiat Oncol*, 16(4)239-248, 2006.
11. **SB Jiang**, A New Dimension in Care, *ADVANCE for Imaging and Oncology Administrators*, 16(5):53-56, 2006.
12. **SB Jiang**, Technical Aspects of Image-Guided Respiration-Gated Radiation Therapy, *Medical Dosimetry*, 31(2):141-151, 2006.
13. GS Mageras, E Yorke, and **SB Jiang**, "4D" IMRT Delivery, in *IMRT Image-Guided IMRT* Editors: T Bortfeld, R Schmidt-Ullrich, W de Neve, DE Wazer, Publisher: Springer-Verlag Heidelberg, Germany, pp 269-288.
14. T Bortfeld, **SB Jiang**, E Rietzel, Effects of motion on the total dose distribution, *Semin Radiat Oncol*, 14(1):41-51, 2004.
15. CM Ma and **SB Jiang**, Monte Carlo modeling of electron beams from medical accelerators, *Phys Med Biol*, 44:R157-R189, 1999.

Invited Talks

1. Next Generation Radiotherapy Treatment Planning, First International Forum on Frontiers in SBRT/SRS, Xi'an, China, November 6, 2015.
2. Patient Model-based Real Time Volumetric Thoracic Imaging, Varian Medical System Imaging Consortium, Chicago, IL September 11, 2015.
3. Next Generation Radiotherapy Treatment Planning: Current Status and Future Prospects, World Congress on Medical Physics and Biomedical Engineering, Toronto, Canada, June 7-12, 2015.
4. An Introduction to UT Southwestern Medical Physics Program, SMU-UTSW On Recent Progress in Adaptive Radiotherapy Workshop, Guangzhou, China, February 12, 2015.
5. Applications of GPU in Radiotherapy Imaging and Planning, Department of Radiation Physics, MD Anderson Cancer Center, Houston, TX, January 14, 2015.
6. Applications of GPU in Medical Physics and Imaging, BME Cancer Imaging Seminar, UTSW, Dallas, TX, September 26, 2014.
7. Low Dose, Real-Time, and Dynamic Volumetric Imaging in Radiotherapy, *1st Central European Symposium on Radiation Oncology: Technological and Biological Sunrise for Radiation Oncology*, Gliwice, Poland, May 16th-17th, 2014.

8. An Introduction to Radiation Oncology and Medical Physics, Department of Physics, University of Texas at Arlington, Arlington, TX, April 23, 2014.
9. GPU Computing in Medical Physics, AAPM Southwest Chapter Spring Meeting, San Antonio, TX, April 3, 2014.
10. An Introduction to Medical Physics and Engineering, UTSW Biomedical Engineering (BME) Graduate Program Retreat & Scientific Symposium, Dallas Arboretum, April 3, 2014.
11. Recent Advances in Radiation Therapy, Sichuan Province People's Hospital, Chengdu, China, July 3, 2013.
12. GPU Computations in Radiation Therapy, Institute of Tian Si Intelligent System, College of Computer Science, Sichuan University, Chengdu, China, July 2, 2013.
13. GPU-Based Adaptive Radiotherapy Re-planning and Next-Generation Treatment Planning, LinaTech LLC, Suzhou, China, June 26, 2013.
14. GPU-Based Adaptive Radiotherapy Re-planning and Next-Generation Treatment Planning, International Conference on the Use of Computers in Radiation Therapy, Melbourne, Australia, May 8, 2013
15. Cine Cone Beam CT Imaging with and without Prior Images, 2nd ESTRO Forum, Geneva, Switzerland, April 23, 2013.
16. GPU Computing in Radiation Oncology, Varian Medical Systems iLab Baden, February 28, 2013.
17. GPU Techniques in Radiotherapy Treatment Planning, Varian Medical Systems Finland Oy, February 26, 2013.
18. Motion Management Program at UCSD, Workshop for Respiratory Motion Management for Radiation Therapy (MMRT), Department of Radiation Oncology at Washington University School of Medicine, November 16, 2012
19. GPU-based Online Adaptive Radiotherapy, Korean-American Scientists and Engineers Association – San Diego, November 10, 2012
20. Adaptive Therapy and Next Generation Treatment Planning, Department of Radiation Oncology, Massachusetts General Hospital, October 26, 2012
21. CBCT Registration and Reconstruction, Institute of Image Processing and Pattern Recognition, Xi'an Jiaotong University, Xi'an, China, October 12, 2012
22. GPU, Adaptive Therapy, and Next Generation Treatment Planning, Department of Radiation Oncology, Xijing Hospital, The fourth Military Medical University, Xi'an, China, October 11, 2012
23. Recent Advancements in Medical Physics, Department of Radiation Oncology, West China Hospital, Sichuan University, Chengdu, China, June 7, 2012
24. Recent Advancements in Medical Physics, Department of Radiation Oncology, The First People's Hospital of Sichuan Province, Chengdu, China, June 6, 2012
25. Recent Advancements in Medical Physics, School of Biomedical Engineering, Southern Medical University, Guangzhou, China, June 5, 2012
26. Fast Deformable Imaging Registration for Adaptive Radiotherapy, World Congress on Medical Physics and Biomedical Engineering, Beijing, May 26-31, 2012
27. 4D CT and 4D CBCT Imaging for 4D Radiation Therapy, World Congress on Medical Physics and Biomedical Engineering, Beijing, May 26-31, 2012
28. GPU-Based Online Adaptive Radiotherapy, World Congress on Medical Physics and Biomedical Engineering, Beijing, May 26-31, 2012
29. Real-time volumetric imaging estimation from x-ray projections and priors, EPI2K12, Sydney, March 12, 2012.

30. GPU-based computational tools for efficient and innovative cancer radiotherapy, Fall 2011 AAPM Missouri River Valley Chapter Meeting, Des Moines, IA, November 5, 2011.
31. Mathematical Solution of Medical Problems: A Medical Physicist's Perspective, The 2011 International workshop on Recent Advances in Biomedical Imaging, Shanghai, China, August 15-18, 2011.
32. GPU-based Iterative Reconstruction for CT, 4D CT, and Spectral CT, 7th International Conference on Biological Physics, San Diego, CA, June 19-24.
33. GPU-based computational tools for efficient and innovative cancer radiotherapy, International Workshop on Recent Advances in Monte Carlo Techniques for Radiation Therapy, June 8-10, 2011.
34. GPU-based computational tools for efficient and innovative cancer radiotherapy, The 1st AMC-UCSD Joint Symposium, Seoul, Korea, May 23, 2011.
35. GPU-based Radiotherapy Treatment Planning, Workshop on High-performance numerical methods supporting radiation therapy treatment planning, Banff International Research Station, Banff, Canada, March 12, 2011.
36. Fast, Robust, and Automatic Re-contouring for Online Adaptive Radiotherapy, 52nd ASTRO Annual Meeting, San Diego, CA, November 1, 2010.
37. Using Entertainment Gadgets to Solve Medical Problems, UCSD Rheumatology Allergy and Immunology Seminar Series, October 12, 2010.
38. Online Adaptive Radiotherapy, The 100th Scientific Meeting of the Japan Society of Medical Physics, Tokyo, Japan, September 24, 2010.
39. Ultra-low Dose CT Imaging for Cancer Radiotherapy, MICCAI 2010 Workshop On Computational Imaging Biomarkers For Tumors: From Qualitative To Quantitative, Beijing, China, September 20, 2010.
40. Online Adaptive Radiotherapy, The International Symposium on Medical Physics for 20th Anniversary of KSMP and 41th Annual Meeting of KSMP in conjunction with Symposium of Korean Council of NMI2 and the 8th Annual Meeting of the KSMRR, Seoul, Korea, September 15 -17, 2010.
41. Image Gently in Image Guided Radiation Therapy, The International Symposium on Medical Physics for 20th Anniversary of KSMP and 41th Annual Meeting of KSMP in conjunction with Symposium of Korean Council of NMI2 and the 8th Annual Meeting of the KSMRR, Seoul, Korea, September 15 -17, 2010.
42. Online Adaptive Radiotherapy, West China Hospital, Sichuan University, Chengdu, China, August 23, 2010.
43. Online Adaptive Radiotherapy, Great Wall 2010 International Congress on Medical Physics, Nanjing, China, August 20, 2010.
44. Online Adaptive Radiotherapy, LinaTech Inc., Suzhou, China, August 17, 2010.
45. Real-time Re-planning for Online Adaptive Radiotherapy, 52nd AAPM Annual Meeting, Philadelphia, Pennsylvania, July 22, 2010.
46. Online Adaptive Radiotherapy, 2010 DVC AAPM Spring Symposium, Philadelphia, PA, May 7, 2010.
47. GPU-based Online Adaptive Radiotherapy, Peking Union Medical College Hospital, Beijing, China, April 27, 2010.
48. GPU-based Image Registration and Reconstruction, Shanghai Jiaotong University, Shanghai, China, April 23, 2010.
49. GPU-based Low Dose CT/CBCT Reconstruction and Real-Time Treatment Planning, Sichuan University, Chengdu, China, April 22, 2010.
50. Towards Real Time Volumetric Imaging and Treatment Planning, MGH 4D Treatment Planning Workshop, Boston MA, January 19-20, 2010.

51. How Adaptive Radiotherapy Works? – A Physicist's Prospective, Southern California Chapter – AAPM, Fall Meeting, San Diego, CA, October 29, 2009.
52. Gated Radiotherapy for Lung Cancer, 51th AAPM Annual Meeting, Anaheim, California, July 26-30, 2009.
53. Fluoroscopic Lung Tumor Tracking Without Implanted Fiducial Markers, 51th AAPM Annual Meeting, Anaheim, California, July 26-30, 2009.
54. Gated Radiotherapy for Lung Cancer, 50th ASTRO Annual Meeting, Boston, MA, September 21 -25, 2008.
55. Gated Radiotherapy for Lung Cancer, The First SANTRO Symposium 2008, Grand Epoch City, Beijing, August 28-30, 2008.
56. Gated Radiotherapy for Lung Cancer, 50th AAPM Annual Meeting, Houston, Texas, July 27 – 31, 2008.
57. Machine Learning for Fluoroscopic Gating and Tracking for Lung Cancer Radiotherapy, Varian Research Partnership Symposium, Austin, Texas, April 28 to May 1, 2008.
58. Image-Guided Radiotherapy for Lung Cancer, AAPM Southern Southeast Chapter Symposium on Emerging Technologies in Radiation Therapy: Impact on the Community Practice Medical Physicists, Birmingham, Alabama, March 28, 2008.
59. Image-Guided Radiotherapy for Lung Cancer, Medical Physics Graduate Program, University of Chicago, March 27, 2008.
60. SBRT/SSRT with compensators, Compensator Based IMRT Symposium, Las Vegas, Nevada, January 25 and 26, 2008.
61. Image-Guided Radiotherapy for Lung Cancer, AAPM Southern California Chapter Midwinter Workshop, Los Angeles, Ca, January 11, 2008.
62. IGRT for Lung, AAPM Northwest Chapter Symposium on IGRT/Advanced Technologies, Seattle, WA, November 9, 2007.
63. Towards on-line adaptive radiotherapy for cervical cancer, Interdisciplinary Workshop on Mathematical Methods in Biomedical Imaging and Intensity-Modulated Radiation Therapy (IMRT), Centro De Giorgi, Pisa, Italy, October 15-19, 2007.
64. 4D Scanning: Imaging/Planning, SAMs Symposium, 49th AAPM Annual Meeting, Minneapolis, Minnesota, July 25, 2007.
65. Motion Management in Treatment Delivery of the Future, Varian RT2020 Focus Group Meeting, San Francisco, June 17-19, 2007.
66. Image Guided Radiation Therapy: Challenges and Solutions, School of Bioengineering, Chongqing University, Chongqing, China, May 28, 2007.
67. Image Guided Radiation Therapy: Challenges and Solutions, Department of Automation Engineering, School of Electronic, Information, and Electrical Engineering, Shanghai Jiao Tong University, Shanghai, China, May 25, 2007.
68. Image Guided Radiation Therapy: Challenges and Solutions, Department of Radiation Oncology, Shanghai Cancer Hospital, Fudan University, Shanghai, China, May 24, 2007.
69. Image Guided Radiation Therapy: Challenges and Solutions, Department of Radiation Oncology, Cancer Institute (Hospital), Chinese Academy of Medical Sciences, Beijing, China, May 16, 2007.
70. Image Guided Radiation Therapy: Challenges and Solutions, School of Electronics Engineering and Computer Science, Beijing University, Beijing, China, May 16, 2007.
71. Quality Assurance Challenges for Motion-adaptive Radiation Therapy: Gating, Breath-hold and 4D-CT, Workshop on Quality Assurance of Radiation Therapy and the Challenges of Advanced Technologies, Dallas, Texas, February 20-22, 2007

72. Management of respiratory motion in radiotherapy, AAPM Connecticut Chapter Meeting, Hartford, CT, October 24, 2006.
73. Lung Tumor Motion – Prospectives of Application of gating Techniques, ESTRO 25, Leipzig, Germany, October 9, 2006.
74. Monte Carlo Simulation and Lung IMRT, Department of Radiation Medicine, Oregon Health and Science University, September 29, 2006.
75. IMRT with Varian DMLC and IGRT with Portal Vision, Varian China Road Show, Xi'an, China, September 8, 2006.
76. IMRT with Varian DMLC and IGRT with Portal Vision, Varian China Road Show, Chengdu, China, September 7, 2006.
77. 4D CT and Its Application in Respiration Motion Correction, International Congress on Medical Physics, Hangzhou, China, September 3, 2006.
78. Management of Respiratory Motion in Radiotherapy, Department of Radiation Medicine, Oregon Health and Science University, August 25, 2006.
79. Radiographic and Fluoroscopic Guidance of Respiratory Sites, Joint Imaging-Therapy Symposium in Memoriam of Edward Webster, 48th AAPM Annual Meeting, Orlando, Florida, August 2, 2006
80. 4D Scanning, Therapy Continuing Education Cause, 48th AAPM Annual Meeting, Orlando, Florida, August 1, 2006
81. Image-Guided Respiratory Gating - Right Time and Place, Varian's 2006 Annual AAPM Symposium, Orlando, Florida, July 30, 2006
82. IGRT and Beyond, Department of Radiation Oncology, Stanford University, June 27, 2006.
83. Deformable Registration Work at MGH, Varian Advisory Board Meeting for Deformable Image Registration, Red Wood City, California, June 26 – 27, 2006.
84. Management of Moving Targets in Radiotherapy, 2006 AAPM Summer School (Integrating New Technologies into the Clinic: Monte Carlo and Image Guided Radiation Therapy), University of Windsor, Ontario, Canada, June 18 - 22, 2006.
85. Managing Respiratory Motion, 23rd ACMP Annual Meeting, Las Vegas, Nevada, June 3 – 6, 2006.
86. Management of Respiratory Motion in Radiotherapy, Department of Radiation Oncology, University of Colorado, April 24, 2006.
87. Management of Respiratory Motion in Radiotherapy, Department of Radiation Oncology, University of Virginia, March 21, 2006.
88. Management of Respiratory Motion in Radiotherapy, Department of Radiation Oncology, University of Pittsburgh Medical Center, March 17, 2006.
89. 4D Tracking and Delivery, 4th Symposium On Combined Modality Therapy, organized by University of Texas Southwestern Medical Center, Dallas, Texas, February 23-25, 2006
90. Gated Radiotherapy - Problems and Solutions, Varian Research Partnership Symposium, Charleston, SC, February 7-10, 2006
91. Gated Radiotherapy - Current Status and Future Development, Department of Radiation Oncology, University of Maryland Medical Center, December 5, 2005.
92. Gated Radiotherapy - Current Status and Future Development, the Delaware Valley Chapter of the AAPM, Philadelphia, PA, November 3, 2005.
93. Gated Radiotherapy - Current Status and Future Development, Department of Radiation Oncology, Huaxi Medial School, Sichuan University, Chengdu, Sichuan, China, October 12, 2005.
94. Image Guided Radiation Therapy: Challenges and Opportunities, Center for Radiation Physics, Sichuan University, Chengdu, Sichuan, China, October 10, 2005.

95. Intra-fraction Tumor Motions, IGIMRT Practicum @ Sea & A Research Workshop on Image-Guided Interventions, Cruise Diamond Princess from Seattle to Alaska, organized by University of Florida, July 30 – August 6 , 2005.
96. IRIS: An On-board X-Ray Imaging System for Patient Setup and Real-Time Tumor Tracking, MGH IGRT Workshop 2005, Boston, MA, February 18-19, 2005.
97. IGRT at MGH: On-board X-Ray Imaging for Patient Setup and Real-Time Tumor Tracking, Dana Farber-Brigham and Women's Cancer Center, November 11, 2004.
98. Image Guided Radiation Therapy (IGRT), Tufts University Biomedical Engineering Seminar Series, October 29, 2004.
99. IGRT at MGH: On-board X-Ray Imaging for Patient Setup and Real-Time Tumor Tracking, Department of Medical Physics, Memorial Sloan-Kettering Cancer Center, New York, September 23, 2004.
100. IGRT at MGH: On-board X-Ray Imaging for Patient Setup and Real-Time Tumor Tracking, AAPM New Jersey Chapter Meeting, Kenilworth Inn, New Jersey, September 22, 2004.
101. Current Status and Future Development of Image Guided Radiation Therapy, Center for Radiation Physics, Sichuan University, Chengdu, Sichuan, China, February 10, 2004.
102. Management of Tumors with Respiratory Motion, The International Symposium on Image-Guided Radiotherapy, University of Ulsan, Asan Medical Center, Seoul, South Korea, February 6, 2004.
103. IGRT at MGH: X-Ray Image Guided Patient Setup and Tumor Tracking, Varian Research Partners Symposium, Varian Medical Systems Inc, Lake Mary, Florida, January 29-30, 2004.
104. Organ Motion Considerations with IMRT, 2nd Intensity Modulated Radiation Therapy Symposium – “Continuing Advancements and Experiences”, University of Nebraska Medical Center, Omaha, Nebraska, September 12-13, 2003.
105. Image Guided Adaptive Radiotherapy (IGAR) Project at MGH, Department of Radiation Oncology, Thomas Jefferson University, April 5, 2002.
106. Monte Carlo as a tool for IMRT verification, Monte Carlo Treatment Planning International Workshop, Stanford University, November 9-11, 2000.
107. A practical procedure for clinical beam modeling and commissioning for Monte Carlo treatment planning, CMS' FOCUS 2000 User's Symposium, St. Louis, MO, April 10-11, 2000.
108. Monte Carlo and IMRT, Department of Radiation Oncology, University of Maryland, March 23, 2000.
109. Monte Carlo and IMRT, Department of Radiation Oncology, Yale University, February 17, 2000.
110. Practical Commissioning Procedures for Monte Carlo Treatment Planning, Third International Workshop on Electron and Photon Transport Theory Applied to Radiation Dose Calculation, Indianapolis, Indiana, August 8-12, 1999.