



Ruijiang Li

Associate Professor (Research) of Radiation Oncology (Radiation Physics)
Radiation Oncology - Radiation Physics

CONTACT INFORMATION

- **Alternate Contact**

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Bio

ACADEMIC APPOINTMENTS

- Associate Professor (Research), Radiation Oncology - Radiation Physics
- Member, Bio-X
- Member, Stanford Cancer Institute

HONORS AND AWARDS

- Graduate Alumni Fellowship, University of Florida (2004-2008)
- Resident Poster Recognition Award, ASTRO (2009)
- Resident Clinical/Basic Science Research Award, ASTRO (2010)
- Annual Meeting Science Council Research Award, AAPM (2010, 2014)
- Annual Meeting Scientific Abstract Award, ASTRO (2011)
- Pathway to Independence Award (K99/R00), NIH/NCI (2012)
- Resident Clinical/Basic Science Research Award (senior author), ASTRO (2014)
- Basic/Translational Science Abstract Award (senior author), ASTRO (2015)
- iDEA-iTECH Award, Sanofi (2023)

BOARDS, ADVISORY COMMITTEES, PROFESSIONAL ORGANIZATIONS

- Member, Board of Associated Editors, AAPM (2019 - 2024)
- Member, Research Grants Evaluation Subcommittee, Science Council, ASTRO (2019 - 2021)
- Member, Scientific Review Panel, Science Council, ASTRO (2021 - present)

PROFESSIONAL EDUCATION

- Board Certification, American Board of Radiology , Therapeutic Medical Physics (2013)
- Ph.D., University of Florida , Electrical and Computer Engineering (2008)
- B.Sc., Zhejiang University , Electrical Engineering (2004)

LINKS

- My Lab Website: <http://med.stanford.edu/lilab.html>

Research & Scholarship

CURRENT RESEARCH AND SCHOLARLY INTERESTS

Our lab is focused on the development and application of novel machine learning and deep learning approaches for medical imaging analysis and precision oncology. This can lead to discovery of imaging-based biomarkers for several clinical applications including cancer detection and diagnosis, treatment response and prognosis prediction, which have the potential to transform cancer care.

Our work spans across multiple imaging domains and modalities including radiology as well as histopathology image data. These data sets are linked with clinical outcomes to address a specific unmet clinical need. Further, we integrate imaging with matched genomic/molecular data to gain more insight into cancer biology.

Artificial intelligence (AI) including machine learning and deep learning plays a critical role in these endeavors. We are developing new methods to make these sophisticated models more robust, reproducible, and interpretable; all are which key elements of successful AI applications in medicine.

Our research is multidisciplinary by nature. We work closely with a team of expert clinicians including oncologists, surgeons, radiologists, and pathologists at Stanford and beyond. Our goal is to translate new technology and imaging biomarkers to clinical practice, which can guide personalized management and therapy selection, ultimately improving outcomes for cancer patients.

Teaching

STANFORD ADVISEES

Postdoctoral Faculty Sponsor

Yijiang Chen, Yuanfeng Ji, Yuchen Li, Zhongxiao Li, Xiangde Luo, Xiyue Wang, Jinxi Xiang

GRADUATE AND FELLOWSHIP PROGRAM AFFILIATIONS

- Biomedical Data Science (Phd Program)
- Biomedical Data Science (Masters Program)

Publications

PUBLICATIONS

- **A vision-language foundation model for precision oncology.** *Nature*
Xiang, J., Wang, X., Zhang, X., Xi, Y., Eweje, F., Chen, Y., Li, Y., Bergstrom, C., Gopalchan, M., Kim, T., Yu, K. H., Willens, S., Olguin, et al
2025
- **A pathology foundation model for cancer diagnosis and prognosis prediction.** *Nature*
Wang, X., Zhao, J., Marostica, E., Yuan, W., Jin, J., Zhang, J., Li, R., Tang, H., Wang, K., Li, Y., Wang, F., Peng, Y., Zhu, et al
2024
- **Virtual multiplexed immunofluorescence staining from non-antibody-stained fluorescence imaging for gastric cancer prognosis.** *EBioMedicine*
Zhou, Z., Jiang, Y., Sun, Z., Zhang, T., Feng, W., Li, G., Li, R., Xing, L.
2024; 107: 105287

- **Morphological diversity of cancer cells predicts prognosis across tumor types.** *Journal of the National Cancer Institute*
Sali, R., Jiang, Y., Attaranzadeh, A., Holmes, B., Li, R.
2023
- **A Longitudinal MRI-Based Artificial intelligence System to Predict Pathological Complete Response after Neoadjuvant Therapy in Rectal Cancer: a Multicenter Validation Study.** *Diseases of the colon and rectum*
Ke, J., Jin, C., Tang, J., Cao, H., He, S., Ding, P., Jiang, X., Zhao, H., Cao, W., Meng, X., Gao, F., Lan, P., Li, et al
2023
- **Biology-guided deep learning predicts prognosis and cancer immunotherapy response.** *Nature communications*
Jiang, Y., Zhang, Z., Wang, W., Huang, W., Chen, C., Xi, S., Ahmad, M. U., Ren, Y., Sang, S., Xie, J., Wang, J. Y., Xiong, W., Li, et al
2023; 14 (1): 5135
- **Non-invasive tumor microenvironment evaluation and treatment response prediction in gastric cancer using deep learning radiomics.** *Cell reports. Medicine*
Jiang, Y., Zhou, K., Sun, Z., Wang, H., Xie, J., Zhang, T., Sang, S., Islam, M. T., Wang, J. Y., Chen, C., Yuan, Q., Xi, S., Li, et al
2023: 101146
- **Cancer immunotherapy response prediction from multi-modal clinical and image data using semi-supervised deep learning.** *Radiotherapy and oncology : journal of the European Society for Therapeutic Radiology and Oncology*
Wang, X., Jiang, Y., Chen, H., Zhang, T., Han, Z., Chen, C., Yuan, Q., Xiong, W., Wang, W., Li, G., Heng, P. A., Li, R.
2023: 109793
- **Survival Prediction via Hierarchical Multimodal Co-Attention Transformer: A Computational Histology-Radiology Solution.** *IEEE transactions on medical imaging*
Li, Z., Jiang, Y., Lu, M., Li, R., Xia, Y.
2023; PP
- **Artificial intelligence for clinical oncology: current status and future outlook.** *Science bulletin*
Jiang, Y., Li, R., Li, G.
2023
- **Development and Validation of a Machine Learning Model for Detection and Classification of Tertiary Lymphoid Structures in Gastrointestinal Cancers.** *JAMA network open*
Li, Z., Jiang, Y., Li, B., Han, Z., Shen, J., Xia, Y., Li, R.
2023; 6 (1): e2252553
- **Improving the diagnosis of acute ischemic stroke on non-contrast CT using deep learning: a multicenter study.** *Insights into imaging*
Chen, W., Wu, J., Wei, R., Wu, S., Xia, C., Wang, D., Liu, D., Zheng, L., Zou, T., Li, R., Qi, X., Zhang, X.
2022; 13 (1): 184
- **Predicting peritoneal recurrence and disease-free survival from CT images in gastric cancer with multitask deep learning: a retrospective study.** *The Lancet. Digital health*
Jiang, Y., Zhang, Z., Yuan, Q., Wang, W., Wang, H., Li, T., Huang, W., Xie, J., Chen, C., Sun, Z., Yu, J., Xu, Y., Poultsides, et al
2022; 4 (5): e340-e350
- **B cell-related gene signature and cancer immunotherapy response.** *British journal of cancer*
Lundberg, A., Li, B., Li, R.
1800
- **Radiological tumour classification across imaging modality and histology** *NATURE MACHINE INTELLIGENCE*
Wu, J., Li, C., Gensheimer, M., Padda, S., Kato, F., Shirato, H., Wei, Y., Schonlieb, C., Price, S., Jaffray, D., Heymach, J., Neal, J. W., Loo, et al
2021
- **Radiographical assessment of tumour stroma and treatment outcomes using deep learning: a retrospective, multicohort study** *LANCET DIGITAL HEALTH*
Jiang, Y., Liang, X., Han, Z., Wang, W., Xi, S., Li, T., Chen, C., Yuan, Q., Li, N., Yu, J., Xie, Y., Xu, Y., Zhou, et al
2021; 3 (6): E371-E382
- **Noninvasive Prediction of Occult Peritoneal Metastasis in Gastric Cancer Using Deep Learning.** *JAMA network open*
Jiang, Y., Liang, X., Wang, W., Chen, C., Yuan, Q., Zhang, X., Li, N., Chen, H., Yu, J., Xie, Y., Xu, Y., Zhou, Z., Li, et al

2021; 4 (1): e2032269

- **Predicting treatment response from longitudinal images using multi-task deep learning.** *Nature communications*
Jin, C., Yu, H., Ke, J., Ding, P., Yi, Y., Jiang, X., Duan, X., Tang, J., Chang, D. T., Wu, X., Gao, F., Li, R.
2021; 12 (1): 1851
- **Single-Cell Spatial Analysis of Tumor and Immune Microenvironment on Whole-Slide Image Reveals Hepatocellular Carcinoma Subtypes.** *Cancers*
Wang, H., Jiang, Y., Li, B., Cui, Y., Li, D., Li, R.
2020; 12 (12)
- **Deep learning analysis of the primary tumour and the prediction of lymph node metastases in gastric cancer.** *The British journal of surgery*
Jin, C., Jiang, Y., Yu, H., Wang, W., Li, B., Chen, C., Yuan, Q., Hu, Y., Xu, Y., Zhou, Z., Li, G., Li, R.
2020
- **Natural killer cell and stroma abundance are independently prognostic and predict gastric cancer chemotherapy benefit.** *JCI insight*
Li, B., Jiang, Y., Li, G., Fisher, G. A., Li, R.
2020
- **Development and Validation of a Deep Learning CT Signature to Predict Survival and Chemotherapy Benefit in Gastric Cancer: A Multicenter, Retrospective Study.** *Annals of surgery*
Jiang, Y. n., Jin, C. n., Yu, H. n., Wu, J. n., Chen, C. n., Yuan, Q. n., Huang, W. n., Hu, Y. n., Xu, Y. n., Zhou, Z. n., Fisher, G. A., Li, G. n., Li, et al
2020
- **Peritumoral Radiomics and Predicting Treatment Response.** *JAMA network open*
Li, R. n.
2020; 3 (9): e2016125
- **Triple attention learning for classification of 14 thoracic diseases using chest radiography.** *Medical image analysis*
Wang, H. n., Wang, S. n., Qin, Z. n., Zhang, Y. n., Li, R. n., Xia, Y. n.
2020; 67: 101846
- **Early response evaluation using primary tumor and nodal imaging features to predict progression-free survival of locally advanced non-small cell lung cancer.** *Theranostics*
Zhang, N., Liang, R., Gensheimer, M. F., Guo, M., Zhu, H., Yu, J., Diehn, M., Loo, B. W., Li, R., Wu, J.
2020; 10 (25): 11707–18
- **Noninvasive imaging evaluation of tumor immune microenvironment to predict outcomes in gastric cancer.** *Annals of oncology : official journal of the European Society for Medical Oncology*
Jiang, Y. n., Wang, H. n., Wu, J. n., Chen, C. n., Yuan, Q. n., Huang, W. n., Li, T. n., Xi, S. n., Hu, Y. n., Zhou, Z. n., Xu, Y. n., Li, G. n., Li, et al
2020
- **Integrated imaging and molecular analysis to decipher tumor microenvironment in the era of immunotherapy.** *Seminars in cancer biology*
Wu, J. n., Mayer, A. T., Li, R. n.
2020
- **Integrating Imaging, Histologic, and Genetic Features to Predict Tumor Mutation Burden of Non-Small-Cell Lung Cancer.** *Clinical lung cancer*
Zhang, N., Wu, J., Yu, J., Zhu, H., Yang, M., Li, R.
2019
- **Predicting metastasis in clinically negative axillary lymph nodes with minimum apparent diffusion coefficient value in luminal A-like breast cancer** *BREAST CANCER*
Kato, F., Kudo, K., Yamashita, H., Baba, M., Shimizu, A., Oyama-Manabe, N., Kinoshita, R., Li, R., Shirato, H.
2019; 26 (5): 628–36
- **Tumor Subregion Evolution-based Imaging Features to Assess Early Response and Predict Prognosis in Oropharyngeal Cancer.** *Journal of nuclear medicine : official publication, Society of Nuclear Medicine*
Wu, J., Gensheimer, M., Zhang, N., Guo, M., Liang, R., Zhang, C., Fischbein, N., Pollom, E., Beadle, B., Le, Q., Li, R.
2019

- **Predicting metastasis in clinically negative axillary lymph nodes with minimum apparent diffusion coefficient value in luminal A-like breast cancer.** *Breast cancer (Tokyo, Japan)*
Kato, F., Kudo, K., Yamashita, H., Baba, M., Shimizu, A., Oyama-Manabe, N., Kinoshita, R., Li, R., Shirato, H.
2019
- **Integrating tumor and nodal imaging characteristics at baseline and mid-treatment CT scans to predict distant metastasis in oropharyngeal cancer treated with concurrent chemoradiotherapy.** *International journal of radiation oncology, biology, physics*
Wu, J., Gensheimer, M. F., Zhang, N., Han, F., Liang, R., Qian, Y., Zhang, C., Fischbein, N., Pollom, E. L., Beadle, B., Le, Q., Li, R.
2019
- **The immune subtypes and landscape of squamous cell carcinoma.** *Clinical cancer research : an official journal of the American Association for Cancer Research*
Li, B., Cui, Y., Nambiar, D. K., Sunwoo, J. B., Li, R.
2019
- **The utility of MRI histogram and texture analysis for the prediction of histological diagnosis in head and neck malignancies.** *Cancer imaging : the official publication of the International Cancer Imaging Society*
Fujima, N., Homma, A., Harada, T., Shimizu, Y., Tha, K. K., Kano, S., Mizumachi, T., Li, R., Kudo, K., Shirato, H.
2019; 19 (1): 5
- **Tensor framelet based iterative image reconstruction algorithm for low-dose multislice helical CT.** *PLoS one*
Nam, H., Guo, M., Yu, H., Lee, K., Li, R., Han, B., Xing, L., Lee, R., Gao, H.
2019; 14 (1): e0210410
- **Integrating quantitative morphological and intratumoural textural characteristics in FDG-PET for the prediction of prognosis in pharynx squamous cell carcinoma patients** *CLINICAL RADIOLOGY*
Fujima, N., Hirata, K., Shiga, T., Li, R., Yasuda, K., Onimaru, R., Tsuchiya, K., Kano, S., Mizumachi, T., Homma, A., Kudo, K., Shirato, H.
2018; 73 (12): 1059.e1–1059.e8
- **Magnetic resonance imaging and molecular features associated with tumor-infiltrating lymphocytes in breast cancer.** *Breast cancer research : BCR*
Wu, J., Li, X., Teng, X., Rubin, D. L., Napel, S., Daniel, B. L., Li, R.
2018; 20 (1): 101
- **Integrating Radiosensitivity and Immune Gene Signatures for Predicting Benefit of Radiotherapy in Breast Cancer.** *Clinical cancer research : an official journal of the American Association for Cancer Research*
Cui, Y., Li, B., Pollom, E. L., Horst, K., Li, R.
2018
- **Radiomics and radiogenomics for precision radiotherapy** *JOURNAL OF RADIATION RESEARCH*
Wu, J., Tha, K., Xing, L., Li, R.
2018; 59: I25–I31
- **Intratumoral Spatial Heterogeneity at Perfusion MR Imaging Predicts Recurrence-free Survival in Locally Advanced Breast Cancer Treated with Neoadjuvant Chemotherapy.** *Radiology*
Wu, J. n., Cao, G. n., Sun, X. n., Lee, J. n., Rubin, D. L., Napel, S. n., Kurian, A. W., Daniel, B. L., Li, R. n.
2018: 172462
- **Imaging CF3I conical intersection and photodissociation dynamics with ultrafast electron diffraction** *Science*
Yang, J., Zhu, X., Wolf, T. J., Li, Z., Nunes, J. F., Coffee, R., Cryan, J. P., Gühr, M., Hegazy, K., Heinz, T. F., Jobe, K., Li, R., Shen, et al
2018; 361 (6397): 64–67
- **A Quantitative CT Imaging Signature Predicts Survival and Complements Established Prognosticators in Stage I Non-Small Cell Lung Cancer.** *International journal of radiation oncology, biology, physics*
Lee, J. n., Li, B. n., Cui, Y. n., Sun, X. n., Wu, J. n., Zhu, H. n., Yu, J. n., Gensheimer, M. F., Loo, B. W., Diehn, M. n., Li, R. n.
2018
- **Automatic Estimation of Volumetric Breast Density Using Artificial Neural Network-Based Calibration of Full-Field Digital Mammography: Feasibility on Japanese Women With and Without Breast Cancer** *JOURNAL OF DIGITAL IMAGING*
Wang, J., Kato, F., Yamashita, H., Baba, M., Cui, Y., Li, R., Oyama-Manabe, N., Shirato, H.
2017; 30 (2): 215–227

- **Robust Estimation of Electron Density From Anatomic Magnetic Resonance Imaging of the Brain Using a Unifying Multi-Atlas Approach.** *International journal of radiation oncology, biology, physics*
Ren, S., Hara, W., Wang, L., Buyyounouski, M. K., Le, Q., Xing, L., Li, R.
2017; 97 (4): 849-857
- **Incorporating prior biological knowledge for network-based differential gene expression analysis using differentially weighted graphical LASSO** *BMC BIOINFORMATICS*
Zuo, Y., Cui, Y., Yu, G., Li, R., Ressom, H. W.
2017; 18
- **Identifying relations between imaging phenotypes and molecular subtypes of breast cancer: Model discovery and external validation.** *Journal of magnetic resonance imaging : JMIR*
Wu, J., Sun, X., Wang, J., Cui, Y., Kato, F., Shirato, H., Ikeda, D. M., Li, R.
2017
- **Volume of high-risk intratumoral subregions at multi-parametric MR imaging predicts overall survival and complements molecular analysis of glioblastoma.** *European radiology*
Cui, Y., Ren, S., Tha, K. K., Wu, J., Shirato, H., Li, R.
2017
- **Unsupervised clustering of quantitative image phenotypes reveals breast cancer subtypes with distinct prognoses and molecular pathways.** *Clinical cancer research : an official journal of the American Association for Cancer Research*
Wu, J., Cui, Y., Sun, X., Cao, G., Li, B., Ikeda, D. M., Kurian, A. W., Li, R.
2017
- **Heterogeneous Enhancement Patterns of Tumor-adjacent Parenchyma at MR Imaging Are Associated with Dysregulated Signaling Pathways and Poor Survival in Breast Cancer.** *Radiology*
Wu, J. n., Li, B. n., Sun, X. n., Cao, G. n., Rubin, D. L., Napel, S. n., Ikeda, D. M., Kurian, A. W., Li, R. n.
2017: 162823
- **Decentralized Learning Framework of Meta-Survival Analysis for Developing Robust Prognostic Signatures.** *JCO clinical cancer informatics*
Cui, Y. n., Li, B. n., Li, R. n.
2017; 1: 1–13
- **Comprehensive Analysis of the Unfolded Protein Response in Breast Cancer Subtypes.** *JCO precision oncology*
Jiang, D., Turner, B., Song, J., Li, R., Diehn, M., Le, Q., Khatri, P., Koong, A. C.
2017; 2017
- **Prognostic value and molecular correlates of a CT image-based quantitative pleural contact index in early stage NSCLC.** *European radiology*
Lee, J. n., Cui, Y. n., Sun, X. n., Li, B. n., Wu, J. n., Li, D. n., Gensheimer, M. F., Loo, B. W., Diehn, M. n., Li, R. n.
2017
- **Development and Validation of an Individualized Immune Prognostic Signature in Early-Stage Nonsquamous Non-Small Cell Lung Cancer.** *JAMA oncology*
Li, B. n., Cui, Y. n., Diehn, M. n., Li, R. n.
2017
- **Intratumor partitioning and texture analysis of dynamic contrast-enhanced (DCE)-MRI identifies relevant tumor subregions to predict pathological response of breast cancer to neoadjuvant chemotherapy.** *Journal of magnetic resonance imaging : JMIR*
Wu, J., Gong, G., Cui, Y., Li, R.
2016; 44 (5): 1107-1115
- **Automatic multiorgan segmentation in CT images of the male pelvis using region-specific hierarchical appearance cluster models** *MEDICAL PHYSICS*
Li, D., Zang, P., Chai, X., Cui, Y., Li, R., Xing, L.
2016; 43 (10)
- **Prognostic value of midtreatment FDG-PET in oropharyngeal cancer.** *Head & neck*
Pollom, E. L., Song, J., Durkee, B. Y., Aggarwal, S., Bui, T., von Eyben, R., Li, R., Brizel, D. M., Loo, B. W., Le, Q., Hara, W. Y.
2016; 38 (10): 1472-1478

- **Early-Stage Non-Small Cell Lung Cancer: Quantitative Imaging Characteristics of (18)F Fluorodeoxyglucose PET/CT Allow Prediction of Distant Metastasis.** *Radiology*
Wu, J., Aguilera, T., Shultz, D., Gudur, M., Rubin, D. L., Loo, B. W., Diehn, M., Li, R.
2016; 281 (1): 270-278
- **Quantitative Analysis of (18)F-Fluorodeoxyglucose Positron Emission Tomography Identifies Novel Prognostic Imaging Biomarkers in Locally Advanced Pancreatic Cancer Patients Treated With Stereotactic Body Radiation Therapy.** *International journal of radiation oncology, biology, physics*
Cui, Y., Song, J., Pollom, E., Alagappan, M., Shirato, H., Chang, D. T., Koong, A. C., Li, R.
2016; 96 (1): 102-109
- **INDEED: Integrated differential expression and differential network analysis of omic data for biomarker discovery.** *Methods (San Diego, Calif.)*
Zuo, Y., Cui, Y., Di Poto, C., Varghese, R. S., Yu, G., Li, R., Ransom, H. W.
2016
- **Robust Intratumor Partitioning to Identify High-Risk Subregions in Lung Cancer: A Pilot Study.** *International journal of radiation oncology, biology, physics*
Wu, J., Gensheimer, M. F., Dong, X., Rubin, D. L., Napel, S., Diehn, M., Loo, B. W., Li, R.
2016; 95 (5): 1504-1512
- **Prognostic Imaging Biomarkers in Glioblastoma: Development and Independent Validation on the Basis of Multiregion and Quantitative Analysis of MR Images** *RADIOLOGY*
Cui, Y., Tha, K. K., Terasaka, S., Yamaguchi, S., Wang, J., Kudo, K., Xing, L., Shirato, H., Li, R.
2016; 278 (2): 546-553
- **3D fluoroscopic image estimation using patient-specific 4DCBCT-based motion models** *PHYSICS IN MEDICINE AND BIOLOGY*
Dhou, S., Hurwitz, M., Mishra, P., Cai, W., Rottmann, J., Li, R., Williams, C., Wagar, M., Berbeco, R., Ionascu, D., Lewis, J. H.
2015; 60 (9): 3807-3824
- **Beam's-eye-view dosimetrics (BEVD) guided rotational station parameter optimized radiation therapy (SPORT) planning based on reweighted total-variation minimization** *PHYSICS IN MEDICINE AND BIOLOGY*
Kim, H., Li, R., Lee, R., Xing, L.
2015; 60 (5): N71-N82
- **Optimization approaches to volumetric modulated arc therapy planning** *MEDICAL PHYSICS*
Unkelbach, J., Bortfeld, T., Craft, D., Alber, M., Bangert, M., Bokrantz, R., Chen, D., Li, R., Xing, L., Men, C., Nill, S., Papp, D., Romeijn, et al
2015; 42 (3): 1367-1377
- **Simultaneous beam sampling and aperture shape optimization for SPORT.** *Medical physics*
Zarepisheh, M., Li, R., Ye, Y., Xing, L.
2015; 42 (2): 1012-?
- **Identifying Triple-Negative Breast Cancer Using Background Parenchymal Enhancement Heterogeneity on Dynamic Contrast-Enhanced MRI: A Pilot Radiomics Study.** *PLoS one*
Wang, J., Kato, F., Oyama-Manabe, N., Li, R., Cui, Y., Tha, K. K., Yamashita, H., Kudo, K., Shirato, H.
2015; 10 (11)
- **Accuracy of surface registration compared to conventional volumetric registration in patient positioning for head-and-neck radiotherapy: A simulation study using patient data** *MEDICAL PHYSICS*
Kim, Y., Li, R., Na, Y. H., Lee, R., Xing, L.
2014; 41 (12)
- **A unifying probabilistic Bayesian approach to derive electron density from MRI for radiation therapy treatment planning.** *Physics in medicine and biology*
Gudur, M. S., Hara, W., Le, Q., Wang, L., Xing, L., Li, R.
2014; 59 (21): 6595-6606
- **An initial study on the estimation of time-varying volumetric treatment images and 3D tumor localization from single MV cine EPID images** *MEDICAL PHYSICS*
Mishra, P., Li, R., Mak, R. H., Rottmann, J., Bryant, J. H., Williams, C. L., Berbeco, R. I., Lewis, J. H.

2014; 41 (8): 171-178

- **A Fourier-based compressed sensing technique for accelerated CT image reconstruction using first-order methods** *PHYSICS IN MEDICINE AND BIOLOGY*
Choi, K., Li, R., Nam, H., Xing, L.
2014; 59 (12): 3097-3119
- **Assessing the dosimetric impact of real-time prostate motion during volumetric modulated arc therapy.** *International journal of radiation oncology, biology, physics*
Azcona, J. D., Xing, L., Chen, X., Bush, K., Li, R.
2014; 88 (5): 1167-1174
- **Nonisocentric treatment strategy for breast radiation therapy: a proof of concept study.** *International journal of radiation oncology, biology, physics*
Li, R., Xing, L., Horst, K. C., Bush, K.
2014; 88 (4): 920-926
- **Nonisocentric treatment strategy for breast radiation therapy: a proof of concept study.** *International journal of radiation oncology, biology, physics*
Li, R., Xing, L., Horst, K. C., Bush, K.
2014; 88 (4): 920-926
- **Clinical implementation of intrafraction cone beam computed tomography imaging during lung tumor stereotactic ablative radiation therapy.** *International journal of radiation oncology, biology, physics*
Li, R., Han, B., Meng, B., Maxim, P. G., Xing, L., Koong, A. C., Diehn, M., Loo, B. W.
2013; 87 (5): 917-923
- **Cone beam CT imaging with limited angle of projections and prior knowledge for volumetric verification of non-coplanar beam radiation therapy: a proof of concept study.** *Physics in medicine and biology*
Meng, B., Xing, L., Han, B., Koong, A., Chang, D., Cheng, J., Li, R.
2013; 58 (21): 7777-7789
- **Automatic prostate tracking and motion assessment in volumetric modulated arc therapy with an electronic portal imaging device.** *International journal of radiation oncology, biology, physics*
Azcona, J. D., Li, R., Mok, E., Hancock, S., Xing, L.
2013; 86 (4): 762-768
- **Improving IMRT delivery efficiency with reweighted L1-minimization for inverse planning** *MEDICAL PHYSICS*
Kim, H., Becker, S., Lee, R., Lee, S., Shin, S., Candes, E., Xing, L., Li, R.
2013; 40 (7)
- **An adaptive planning strategy for station parameter optimized radiation therapy (SPORT): Segmentally boosted VMAT.** *Medical physics*
Li, R., Xing, L.
2013; 40 (5): 050701-?
- **First study of on-treatment volumetric imaging during respiratory gated VMAT.** *Medical physics*
Choi, K., Xing, L., Koong, A., Li, R.
2013; 40 (4): 040701-?
- **Development and clinical evaluation of automatic fiducial detection for tumor tracking in cine megavoltage images during volumetric modulated arc therapy** *MEDICAL PHYSICS*
Azcona, J. D., Li, R., Mok, E., Hancock, S., Xing, L.
2013; 40 (3)
- **Evaluation of 3D fluoroscopic image generation from a single planar treatment image on patient data with a modified XCAT phantom** *PHYSICS IN MEDICINE AND BIOLOGY*
Mishra, P., Li, R., St James, S., Mak, R. H., Williams, C. L., Yue, Y., Berbeco, R. I., Lewis, J. H.
2013; 58 (4): 841-858
- **Accurate Respiration Measurement Using DC-Coupled Continuous-Wave Radar Sensor for Motion-Adaptive Cancer Radiotherapy** *IEEE TRANSACTIONS ON BIOMEDICAL ENGINEERING*
Gu, C., Li, R., Zhang, H., Fung, A. Y., Torres, C., Jiang, S. B., Li, C.

2012; 59 (11): 3117-3123

- **4D cone beam CT via spatiotemporal tensor framelet** *MEDICAL PHYSICS*
Gao, H., Li, R., Lin, Y., Xing, L.
2012; 39 (11): 6943-6946
- **Real-time tumor motion estimation using respiratory surrogate via memory-based learning** *PHYSICS IN MEDICINE AND BIOLOGY*
Li, R., Lewis, J. H., Berbeco, R. I., Xing, L.
2012; 57 (15): 4771-4786
- **Intrafraction Verification of Gated RapidArc by Using Beam-Level Kilovoltage X-Ray Images** *INTERNATIONAL JOURNAL OF RADIATION ONCOLOGY BIOLOGY PHYSICS*
Li, R., Mok, E., Chang, D. T., Daly, M., Loo, B. W., Diehn, M., Quynh-Thu Le, Q. T., Koong, A., Xing, L.
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