

Stanford



Yong Yang

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Bio

ACADEMIC APPOINTMENTS

- Clinical Professor, Radiation Oncology - Radiation Physics

Publications

PUBLICATIONS

- **Pareto Optimal Projection Search (POPS): Automated Radiation Therapy Treatment Planning by Direct Search of the Pareto Surface** *IEEE TRANSACTIONS ON BIOMEDICAL ENGINEERING*
Huang, C., Yang, Y., Panjwani, N., Boyd, S., Xing, L.
2021; 68 (10): 2907-2917
- **Deep learning-augmented radioluminescence imaging for radiotherapy dose verification.** *Medical physics*
Jia, M., Yang, Y., Wu, Y., Li, X., Xing, L., Wang, L.
2021
- **Fully automated noncoplanar radiation therapy treatment planning.** *Medical physics*
Huang, C., Yang, Y., Xing, L.
2021
- **Deep learning-enabled EPID-based 3D dosimetry for dose verification of step-and-shoot radiotherapy.** *Medical physics*
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2021
- **Independent verification of brachytherapy treatment plan by using deep learning inference modeling.** *Physics in medicine and biology*
Fan, J., Xing, L., Yang, Y.
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- **Deep learning-augmented radiotherapy visualization with a cylindrical radioluminescence system.** *Physics in medicine and biology*
Jia, M., Li, X., Wu, Y., Yang, Y., Kasimbeg, P., Skinner, L. B., Wang, L., Xing, L.
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- **Automated multi-parameter high-dose-rate brachytherapy quality assurance via radioluminescence imaging.** *Physics in medicine and biology*
Jia, M., Kim, T. J., Yang, Y., Xing, L., Jean, P. D., Grafil, E., Jenkins, C. H., Fahimian, B. P.
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- **Data-driven dose calculation algorithm based on deep U-Net.** *Physics in medicine and biology*
Fan, J. n., Xing, L. n., Dong, P. n., Wang, J. n., Hu, W. n., Yang, Y. n.
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- **Beam data modeling of linear accelerators (linacs) through machine learning and its potential applications in fast and robust linac commissioning and quality assurance.** *Radiotherapy and oncology : journal of the European Society for Therapeutic Radiology and Oncology*
Zhao, W. n., Patil, I. n., Han, B. n., Yang, Y. n., Xing, L. n., Schüler, E. n.
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- **Incorporating imaging information from deep neural network layers into image guided radiation therapy (IGRT).** *Radiotherapy and oncology : journal of the European Society for Therapeutic Radiology and Oncology*
Zhao, W., Han, B., Yang, Y., Buyyounouski, M., Hancock, S. L., Bagshaw, H., Xing, L.
2019; 140: 167–74
- **Incorporating dosimetric features into the prediction of 3D VMAT dose distributions using deep convolutional neural network PHYSICS IN MEDICINE AND BIOLOGY**
Ma, M., Kovalchuk, N., Buyyounouski, M. K., Xing, L., Yang, Y.
2019; 64 (12)
- **Dose Distribution Prediction in Isodose Feature-Preserving Voxelization Domain Using Deep Convolutional Neural Network.** *Medical physics*
Ma, M., Buyyounouski, M. K., Vasudevan, V., Xing, L., Yang, Y.
2019
- **Incorporating dosimetric features into the prediction of 3D VMAT dose distributions using deep convolutional neural network.** *Physics in medicine and biology*
Ma, M., Kovalchuk, N., Buyyounouski, M. K., Xing, L., Yang, Y.
2019
- **Dosimetric features-driven machine learning model for DVH prediction in VMAT treatment planning MEDICAL PHYSICS**
Ma, M., Kovalchuk, N., Buyyounouski, M. K., Xing, L., Yang, Y.
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- **Markerless pancreatic tumor target localization enabled by deep learning.** *International journal of radiation oncology, biology, physics*
Zhao, W. n., Shen, L. n., Han, B. n., Yang, Y. n., Cheng, K. n., Toesca, D. A., Koong, A. C., Chang, D. T., Xing, L. n.
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Zhao, W., Shen, L., Wu, Y., Han, B., Yang, Y., Xing, L., Fei, B., Linde, C. A.
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- **Optimizing efficiency and safety in external beam radiotherapy using automated plan check (APC) tool and six sigma methodology.** *Journal of applied clinical medical physics*
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- **Factor 10 Expedience of Monthly Linac Quality Assurance via an Ion Chamber Array and Automation Scripts.** *Technology in cancer research & treatment*
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2018
- **Feasibility of optimizing intensity-modulated radiation therapy plans based on measured mucosal dose adjacent to dental fillings and toxicity outcomes JOURNAL OF APPLIED CLINICAL MEDICAL PHYSICS**
Seol, S., Aggarwal, S., von Eyben, R., Wang, Z., Chan, C., Say, C., Xing, L., Hara, W., Yang, Y., Quynh Thu Le
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- **Cumulative dose of radiation therapy of hepatocellular carcinoma patients and its deterministic relation to radiation-induced liver disease MEDICAL DOSIMETRY**
Huang, P., Yu, G., Kapp, D. S., Bian, X., Ma, C., Li, H., Chen, J., Liang, Y., Zhang, Y., Qin, S., Xie, Y., Yang, Y., Yin, et al
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- **A unified material decomposition framework for quantitative dual- and triple-energy CT imaging.** *Medical physics*
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- **4D VMAT planning and verification technique for dynamic tracking using a direct aperture deformation (DAD) method** *JOURNAL OF APPLIED CLINICAL MEDICAL PHYSICS*
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- **Automating quality assurance of digital linear accelerators using a radioluminescent phosphor coated phantom and optical imaging.** *Physics in medicine and biology*
Jenkins, C. H., Naczynski, D. J., Yu, S. S., Yang, Y., Xing, L.
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- **Evaluation of on-board kV cone beam CT (CBCT)-based dose calculation** *PHYSICS IN MEDICINE AND BIOLOGY*
Yang, Y., Schreibmann, E., Li, T., Wang, C., Xing, L.
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- **Four-dimensional cone-beam computed tomography using an on-board imager** *MEDICAL PHYSICS*
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- **Overview of image-guided radiation therapy** *MEDICAL DOSIMETRY*
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- **Inverse treatment planning with adaptively evolving voxel-dependent penalty scheme** *MEDICAL PHYSICS*
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- **Quantitative measurement of MLC leaf displacements using an electronic portal image device** *45th Annual Meeting of the American-Society-for-Therapeutic-Radiology-and-Oncology (ASTRO)*
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