



## Yong Yang

Clinical Professor, Radiation Oncology - Radiation Physics

### Bio

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#### ACADEMIC APPOINTMENTS

- Clinical Professor, Radiation Oncology - Radiation Physics

### Publications

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#### PUBLICATIONS

- **Large Language Model-Augmented Auto-Delineation of Treatment Target Volume in Radiation Therapy.** *ArXiv*  
Rajendran, P., Yang, Y., Niedermayr, T. R., Gensheimer, M., Beadle, B., Le, Q. T., Xing, L., Dai, X.  
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- **Commissioning of a novel PET-Linac for biology-guided radiotherapy (BgRT).** *Medical physics*  
Surucu, M., Ashraf, M. R., Romero, I. O., Zalavari, L. T., Pham, D., Vitzthum, L. K., Gensheimer, M. F., Yang, Y., Xing, L., Kovalchuk, N., Han, B.  
2024
- **Automated contouring, treatment planning, and quality assurance for VMAT craniospinal irradiation (VMAT-CSI).** *Frontiers in oncology*  
Simiele, E., Romero, I. O., Wang, J. Y., Chen, Y., Lozko, Y., Severyn, Y., Skinner, L., Yang, Y., Xing, L., Gibbs, I., Hiniker, S. M., Kovalchuk, N.  
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- **Automating the Treatment Planning Process for Volumetric Modulated Arc Therapy Craniospinal Irradiation (VMAT-CSI).** *Practical radiation oncology*  
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- **An overview of artificial intelligence in medical physics and radiation oncology.** *Journal of the National Cancer Center*  
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2023
- **Fully automated segmentally boosted VMAT.** *Medical physics*  
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2023

- **Modeling linear accelerator (Linac) beam data by implicit neural representation learning for commissioning and quality assurance applications.** *Medical physics*  
Liu, L., Shen, L., Yang, Y., Schüler, E., Zhao, W., Wetzstein, G., Xing, L.  
2023
- **Mitigating the uncertainty in small field dosimetry by leveraging machine learning strategies.** *Physics in medicine and biology*  
Zhao, W., Yang, Y., Xing, L., Chuang, C. F., Schüler, E.  
2022
- **Implicit neural representation for radiation therapy dose distribution.** *Physics in medicine and biology*  
Vasudevan, V., Shen, L., Huang, C., Chuang, C. F., Islam, M. T., Ren, H., Yang, Y., Dong, P., Xing, L.  
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- **Meta-optimization for fully automated radiation therapy treatment planning.** *Physics in medicine and biology*  
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- **Dose Prediction for Cervical Cancer Brachytherapy Using 3-D Deep Convolutional Neural Network** *IEEE TRANSACTIONS ON RADIATION AND PLASMA MEDICAL SCIENCES*  
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- **The Stanford VMAT TBI Technique.** *Practical radiation oncology*  
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- **Deep learning-augmented radioluminescence imaging for radiotherapy dose verification.** *Medical physics*  
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2021
- **Fully automated noncoplanar radiation therapy treatment planning.** *Medical physics*  
Huang, C., Yang, Y., Xing, L.  
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- **Deep learning-enabled EPID-based 3D dosimetry for dose verification of step-and-shoot radiotherapy.** *Medical physics*  
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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.  
2020
- **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.  
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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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- **A unified material decomposition framework for quantitative dual- and triple-energy CT imaging.** *Medical physics*  
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Zhang, Y., Yang, Y., Fu, W., Li, X., Li, T., Heron, D. E., Huq, M. S.  
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