

Bin Han

Clinical Associate Professor, Radiation Oncology - Radiation Physics

Bio

ACADEMIC APPOINTMENTS

- Clinical Associate Professor, Radiation Oncology - Radiation Physics

Publications

PUBLICATIONS

- **Deep learning applications in automatic needle segmentation in ultrasound-guided prostate brachytherapy.** *Medical physics*
Wang, F., Xing, L., Bagshaw, H., Buyyounouski, M., Han, B.
2020
- **Densely Connected Neural Network With Unbalanced Discriminant and Category Sensitive Constraints for Polyp Recognition** *IEEE TRANSACTIONS ON AUTOMATION SCIENCE AND ENGINEERING*
Yuan, Y., Qin, W., Ibragimov, B., Zhang, G., Han, B., Meng, M., Xing, L.
2020; 17 (2): 574–83
- **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
- **Prostate cancer classification with multiparametric MRI transfer learning model** *MEDICAL PHYSICS*
Yuan, Y., Qin, W., Buyyounouski, M., Ibragimov, B., Hancock, S., Han, B., Xing, L.
2019; 46 (2): 756–65
- **Feasibility of Image Registration for Ultrasound-Guided Prostate Radiotherapy Based on Similarity Measurement by a Convolutional Neural Network** *TECHNOLOGY IN CANCER RESEARCH & TREATMENT*
Zhu, N., Najafi, M., Han, B., Hancock, S., Hristov, D.
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- **Markerless pancreatic tumor target localization enabled by deep learning.** *International journal of radiation oncology, biology, physics*
Zhao, W., Shen, L., Han, B., Yang, Y., Cheng, K., Toesca, D. A., Koong, A. C., Chang, D. T., Xing, L.
2019
- **Automatic marker-free target positioning and tracking for image-guided radiotherapy and interventions**
Zhao, W., Shen, L., Wu, Y., Han, B., Yang, Y., Xing, L., Fei, B., Linte, C. A.
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- **Feasibility of Image Registration for Ultrasound-Guided Prostate Radiotherapy Based on Similarity Measurement by a Convolutional Neural Network.** *Technology in cancer research & treatment*
Zhu, N., Najafi, M., Han, B., Hancock, S., Hristov, D.
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- **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.
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- **Prostate Cancer Classification with Multi-parametric MRI Transfer Learning Model.** *Medical physics*
Yuan, Y., Qin, W., Buyounouski, M., Ibragimov, B., Hancock, S., Han, B., Xing, L.
2018
- **Evaluation of transperineal ultrasound imaging as a potential solution for target tracking during hypofractionated radiotherapy for prostate cancer.** *Radiation oncology (London, England)*
Han, B., Najafi, M., Cooper, D. T., Lachaine, M., von Eyben, R., Hancock, S., Hristov, D.
2018; 13 (1): 151
- **A unified material decomposition framework for quantitative dual- and triple-energy CT imaging.** *Medical physics*
Zhao, W., Vernekohl, D., Han, F., Han, B., Peng, H., Yang, Y., Xing, L., Min, J. K.
2018
- **RIIS-DenseNet: Rotation-Invariant and Image Similarity Constrained Densely Connected Convolutional Network for Polyp Detection**
Yuan, Y., Qin, W., Ibragimov, B., Han, B., Xing, L., Frangi, A. F., Schnabel, J. A., Davatzikos, C., AlberolaLopez, C., Fichtinger, G.
SPRINGER INTERNATIONAL PUBLISHING AG.2018: 620–28
- **Pixel response-based EPID dosimetry for patient specific QA** *JOURNAL OF APPLIED CLINICAL MEDICAL PHYSICS*
Han, B., Ding, A., Lu, M., Xing, L.
2017; 18 (1): 9-17
- **Pixel response-based EPID dosimetry for patient specific QA.** *Journal of applied clinical medical physics*
Han, B., Ding, A., Lu, M., Xing, L.
2017; 18 (1): 9–17
- **A depth-sensing technique on 3D-printed compensator for total body irradiation patient measurement and treatment planning.** *Medical physics*
Lee, M., Han, B., Jenkins, C., Xing, L., Suh, T.
2016; 43 (11): 6137-?
- **Development of an accurate EPID-based output measurement and dosimetric verification tool for electron beam therapy.** *Medical physics*
Ding, A., Xing, L., Han, B.
2015; 42 (7): 4190-?
- **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
- **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.
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- **X-ray acoustic computed tomography with pulsed x-ray beam from a medical linear accelerator** *MEDICAL PHYSICS*
Xiang, L., Han, B., Carpenter, C., Prax, G., Kuang, Y., Xing, L.
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- **X-ray induced photoacoustic tomography** *Conference on Photons Plus Ultrasound - Imaging and Sensing*
Xiang, L., Han, B., Carpenter, C., Prax, G., Kuang, Y., Xing, L.
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- **Fidelity of dose delivery at high dose rate of volumetric modulated arc therapy in a truebeam linac with flattening filter free beams.** *Journal of medical physics / Association of Medical Physicists of India*
Kalantzis, G., Qian, J., Han, B., Luxton, G.
2012; 37 (4): 193-199

- **Evaluation of the geometric accuracy of surrogate-based gated VMAT using intrafraction kilovoltage x-ray images** *MEDICAL PHYSICS*
Li, R., Mok, E., Han, B., Koong, A., Xing, L.
2012; 39 (5): 2686-2693