

Stanford



Wei Shao

Postdoctoral Research Fellow, Radiology

Bio

HONORS AND AWARDS

- First Place in the CTVE19 Grand Challenge, The American Association of Physicists in Medicine (2019)
- Ballard Seashore Dissertation Fellowship, University of Iowa (2019)
- China National Scholarship (acceptance rate 0.2%), Ministry of Education of the People's Republic of China (2012)
- First Prize, Jiangsu Province Undergraduate Electronic Design Contest (TI Cup), Jiangsu Provincial Department of Education, Jiangsu Province, China (2012)
- First Prize, Jiangsu Province Undergraduate Mathematics Contest, Jiangsu Provincial Department of Education, Jiangsu Province, China (2012)
- First Prize, National Senior High School Mathematics Contest (acceptance rate 0.04%), Jiangsu Mathematical Society, Jiangsu Province, China (2009)

PROFESSIONAL EDUCATION

- Doctor of Philosophy, University of Iowa , Electrical and Computer Engineering (2019)
- Master of Science, University of Iowa , Mathematics (2018)
- Master of Science, University of Iowa , Electrical and Computer Engineering (2016)
- Bachelor of Engineering, Soochow University , Electronics and Information Engineering (2014)

STANFORD ADVISORS

- Mirabela Rusu, Postdoctoral Faculty Sponsor

Research & Scholarship

LAB AFFILIATIONS

- Mirabela Rusu, The Laboratory for Integrative Personalized Medicine (PIMed) (7/22/2019)

Publications

PUBLICATIONS

- **Radiation Dose Response Model for Ventilation Change Using All Phases of 4DCT**
Wallat, E., Flakus, M., Wuschner, A., Shao, W., Gerard, S., Patton, T., Christensen, G., Reinhardt, J., Baschnagel, A., Bayouth, J.
WILEY.2019: E352
- **Improving the Accuracy of 4DCT-Based Ventilation Measurements Using Multiple Phases**
Flakus, M., Wuschner, A., Wallat, E., Shao, W., Gerard, S., Christensen, G., Reinhardt, J., Bayouth, J.
WILEY.2019: E378
- **Longitudinal Changes in Lung Tissue Elasticity Following Radiation Therapy**
Bayouth, J., Wallat, E., Wuschner, A., Flakus, M., Patton, T., Shao, W., Gerard, S., Reinhardt, J., Christensen, G., Baschnagel, A.

WILEY.2019: E378

- **Deep Neural Networks and Kernel Density Estimation for Detecting Human Activity Patterns from Geo-Tagged Images: A Case Study of Birdwatching on Flickr** *ISPRS INTERNATIONAL JOURNAL OF GEO-INFORMATION*
Koylu, C., Zhao, C., Shao, W.
2019; 8 (1)
- **Multi-Frequency Oscillatory Ventilation Minimizes Spatial Gradients of Regional Strain Using 4D CT Image Registration in Porcine Lung Injury**
Herrmann, J., Gerard, S. E., Shao, W., Reinhardt, J. M., Christensen, G. E., Hoffman, E. A., Hawley, M. L., Kaczka, D. W.
AMER THORACIC SOC.2019
- **Nondestructive Measurement of Conformal Coating Thickness on Printed Circuit Board With Ultra-High Resolution Optical Coherence Tomography** *IEEE ACCESS*
Shao, X., Chen, X., Yu, X., Hu, Y., Liu, L., Shi, F., Shao, W., Mo, J.
2019; 7: 18138–45
- **Quantifying ventilation change due to radiation therapy using 4DCT Jacobian calculations** *MEDICAL PHYSICS*
Patton, T. J., Gerard, S. E., Shao, W., Christensen, G. E., Reinhardt, J. M., Bayouth, J. E.
2018; 45 (10): 4483–92
- **Sensitivity analysis of Jacobian determinant used in treatment planning for lung cancer**
Shao, W., Gerard, S. E., Pan, Y., Patton, T. J., Reinhardt, J. M., Durumeric, O. C., Bayouth, J. E., Christensen, G. E., Angelini, E. D., Landman, B. A.
SPIE-INT SOC OPTICAL ENGINEERING.2018
- **Population Shape Collapse in Large Deformation Registration of MR Brain Images**
Shao, W., Christensen, G. E., Johnson, H. J., Song, J. H., Durumeric, O. C., Johnson, C. P., Shaffer, J. J., Magnotta, V. A., Fiedorowicz, J. G., Wemmie, J. A., IEEE
IEEE.2016: 549–57