



Mirabela Rusu

Assistant Professor of Radiology (Integrative Biomedical Imaging Informatics) and, by courtesy, of Biomedical Data Science and of Urology

CONTACT INFORMATION

- **Administrative Contact**

Elizabeth Colvin - Administrative Associate

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Bio

BIO

Dr. Rusu is an Assistant Professor, in the Department of Radiology, and, by courtesy, Department of Urology and Biomedical Data Science, at Stanford University, where she leads the Personalized Integrative Medicine Laboratory (PIMed). The PIMed Laboratory has a multi-disciplinary direction and focuses on developing analytic methods for biomedical data integration, with a particular interest in multimodal fusion, e.g., radiology-pathology fusion to facilitate radiology image labeling, or MRI-ultrasound for guiding procedure. These fusion approaches allow the downstream training of advanced multimodal machine learning for cancer detection and subtype identification at pixel-level. Our approaches have been applied in oncologic (prostate, breast, kidney) and non-oncologic applications.

Dr. Rusu received a Master of Engineering in Bioinformatics from the National Institute of Applied Sciences in Lyon, France. She continued her training at the University of Texas Health Science Center in Houston, where she received a Master of Science and PhD degree in Health Informatics for her work in biomolecular structural data integration of cryo-electron micrographs and X-ray crystallography models.

During her postdoctoral training at Rutgers and Case Western Reserve University, Dr. Rusu has developed computational tools for the integration and interpretation of multi-modal medical imaging data and focused on studying prostate and lung cancers. Prior to joining Stanford, Dr. Rusu was a Lead Engineer and Medical Image Analysis Scientist at GE Global Research Niskayuna NY where she was involved in the development of analytic methods to characterize biological samples in microscopy images and pathologic conditions in MRI or CT.

ACADEMIC APPOINTMENTS

- Assistant Professor, Radiology
- Assistant Professor (By courtesy), Urology
- Assistant Professor (By courtesy), Department of Biomedical Data Science
- Member, Bio-X
- Member, Maternal & Child Health Research Institute (MCHRI)
- Member, Stanford Cancer Institute

- Member, Wu Tsai Neurosciences Institute

HONORS AND AWARDS

- R37 MERIT Award, NIH NCI (2022-2026)
- Above and Beyond (6), GE Global Research (2015-2017)
- School of Engineering Innovation Award, Case Western Reserve University (2014)
- Postdoctoral Award for poster presentation at the Research ShowCASE, Case Western Reserve University (2013)
- Winner, Grand Challenge Automated SEgmentation of Prostate Structures, NCI-ISBI (2013)
- James T. and Nancy Beamer Willerson Endowed Scholarship, University of Texas Health Science Center in Houston (2010)
- Paul Boyle Award for Excellence in Student Research, University of Texas Health Science Center in Houston (2007)
- Undergraduate Research Fellowship, Keck Center for Computational and Structural Biology, Houston (2006)
- International Mobility Fellowship, Rhone-Alpes Region, France (2005)

PROFESSIONAL EDUCATION

- PhD, University of Texas Health Science Center at Houston , Health Informatics | Structural Bioinformatics (2011)
- MS, University of Texas Health Science Center at Houston , Health Informatics | Structural Bioinformatics (2008)
- Master of Engineering, National Institute of Applied Sciences , BioSciences | Bioinformatics and Modeling (2006)

PATENTS

- Anant Madabhushi, Mirabela Rusu. "United States Patent US9767555B2 Disease characterization from fused pathology and radiology data", Case Western Reserve University

LINKS

- Lab Website: <http://rusulab.stanford.edu>

Research & Scholarship

CURRENT RESEARCH AND SCHOLARLY INTERESTS

Dr. Mirabela Rusu focuses on developing analytic methods for biomedical data integration, with a particular interest in radiology-pathology fusion. Such integrative methods may be applied to create comprehensive multi-scale representations of biomedical processes and pathological conditions, thus enabling their in-depth characterization.

Teaching

COURSES

2025-26

- Biomedical Data Science Student Seminar: BMDS 201A, BMDS 201B, BMDS 201C (Spr)
- Computational Methods for Biomedical Image Analysis and Interpretation: BMDS 260, BMP 260, CS 235, RAD 260 (Spr)

2024-25

- Computational Methods for Biomedical Image Analysis and Interpretation: BIOMEDIN 260, BMP 260, CS 235, RAD 260 (Spr)

2023-24

- Computational Methods for Biomedical Image Analysis and Interpretation: BIOMEDIN 260, BMP 260, CS 235, RAD 260 (Spr)
- Seminar Series for Biomedical Physics: BMP 210, RAD 210 (Aut)

2022-23

- Computational Methods for Biomedical Image Analysis and Interpretation: BIOMEDIN 260, BMP 260, CS 235, RAD 260 (Spr)

STANFORD ADVISEES

Doctoral Dissertation Reader (AC)

Laura Bravo Sánchez, Simon John Christoph Soerensen

Postdoctoral Faculty Sponsor

Ahmet Er, Atefeh Khoshkhahtinat

Doctoral Dissertation Advisor (AC)

Cynthia Li

Master's Program Advisor

Ethan Bell, Jennifer Xu

Postdoctoral Research Mentor

Tanmoy Sarkar Pias

Publications

PUBLICATIONS

- **Cystic Artery Velocity: Evaluation of Performance in the Sonographic Diagnosis of Acute Cholecystitis.** *Academic radiology*
Tiyarattanachai, T., Mehta, V., Rusu, M., Kamaya, A.
2026
- **Current Trends and Future Prospects of Radiomics and Machine Learning (ML) Models in Spinal Tumors-A Narrative Review.** *Journal of imaging*
Sanker, V., Panchawgh, S., Kaur, A., Suresh, V., Mahesh, D., Ahmad, E., Hariharan, S., Pangal, D., Cavgnaro, M. J., Rusu, M., Ratliff, J., Desai, A.
2026; 12 (3)
- **Differential privacy for medical deep learning: methods, tradeoffs, and deployment implications.** *NPJ digital medicine*
Mohammadi, M., Vejdanihemmat, M., Lotfinia, M., Rusu, M., Truhn, D., Maier, A., Tayebi Arasteh, S.
2026
- **A Domain-Inspired, Semi-supervised nnU-Net Is All You Need for Primary Breast Cancer Segmentation**
Schouten, D., Lee, J., Bean, G., Itakura, H., Rusu, M.
edited by Zhang, T., Saldanha, O. L., Han, L., Rasoolzadeh, N., Moras, L. G., VanDijk, J., Tan, T., Kather, J. N., Mann, R.
SPRINGER INTERNATIONAL PUBLISHING AG.2026: 155-164
- **Promptable Cancer Segmentation Using Minimal Expert-Curated Data**
Karam, L., Wang, Y., Kasivisvanathan, V., Rusu, M., Hu, Y., Saeed, S. U.
edited by Ali, S., Hogg, D. C., Peckham, M.
SPRINGER INTERNATIONAL PUBLISHING AG.2026: 44-58
- **Multi-step retrieval and reasoning improves radiology question answering with large language models.** *NPJ digital medicine*
Wind, S., Sopa, J., Truhn, D., Lotfinia, M., Nguyen, T. T., Bressemer, K., Adams, L., Rusu, M., Köstler, H., Wellein, G., Maier, A., Tayebi Arasteh, S.
2025
- **ProMUS-NET: Artificial intelligence detects more prostate cancer than urologists on micro-ultrasonography.** *BJU international*
Zhou, S. R., Zhang, L., Choi, M. H., Vesal, S., Kinnaird, A., Brisbane, W. G., Lughezzani, G., Maffei, D., Fasulo, V., Albers, P., Fan, R. E., Shao, W., Sonn, et al
2025
- **Precise MRI-histology coregistration of paraffin-embedded tissue with blockface imaging.** *Imaging neuroscience (Cambridge, Mass.)*
Wang, Y., Ho, W., Huszar, I. N., DiGiacomo, P., Taghavi, H. M., Tao, L., Choi, M., Nguyen, N., Leventis, S., Camarillo, D. B., Schlömer, P., Axer, M., Shao, et al

2025; 3

- **Clinical and Imaging Factors Impacting Positive Predictive Value of Prostate MRI.** *Radiology*
Soerensen, S. J., Rosenberg, J., Franks, Z., Rusu, M., Fan, R. E., Sonn, G. A., Ghanouni, P.
2025; 316 (2): e250413
- **Precise MRI-Histology Coregistration of Paraffin-Embedded Tissue with Blockface Imaging.** *bioRxiv : the preprint server for biology*
Wang, Y., Ho, W., Huszar, I. N., DiGiacomo, P., Taghavi, H. M., Tao, L., Choi, M., Nguyen, N., Leventis, S., Camarillo, D. B., Schlomer, P., Axer, M., Wei, et al
2025
- **Multidisciplinary consensus prostate contours on magnetic resonance imaging: educational atlas and reference standard for artificial intelligence benchmarking.** *International journal of radiation oncology, biology, physics*
Song, Y., Dornisch, A., Dess, R. T., Margolis, D. J., Weinberg, E. P., Barrett, T., Cornell, M., Fan, R. E., Harisinghani, M., Kamran, S. C., Lee, J. H., Li, C. X., Liss, et al
2025
- **ProstAtlasDiff: Prostate cancer detection on MRI using Diffusion Probabilistic Models guided by population spatial cancer atlases.** *Medical image analysis*
Li, C. X., Bhattacharya, I., Vesal, S., Ghanouni, P., Jahanandish, H., Fan, R. E., Sonn, G. A., Rusu, M.
2025; 101: 103486
- **ProCUSNet: Prostate Cancer Detection on B-mode Transrectal Ultrasound Using Artificial Intelligence for Targeting During Prostate Biopsies.** *European urology oncology*
Rusu, M., Jahanandish, H., Vesal, S., Li, C. X., Bhattacharya, I., Venkataraman, R., Zhou, S. R., Kornberg, Z., Sommer, E. R., Khandwala, Y. S., Hockman, L., Zhou, Z., Choi, et al
2025
- **Biomarkers.** *Alzheimer's & dementia : the journal of the Alzheimer's Association*
Wang, Y., Ho, W. H., Huszar, I. N., Taghavi, H. M., Nirschl, J., Leventis, S., Schlömer, P., Axer, M., Shao, W., Rusu, M., DiGiacomo, P., Georgiadis, M., Zeineh, et al
2024; 20 Suppl 2: e092110
- **Aggressiveness classification of clear cell renal cell carcinoma using registration-independent radiology-pathology correlation learning.** *Medical physics*
Bhattacharya, I., Stacke, K., Chan, E., Lee, J. H., Tse, J. R., Liang, T., Brooks, J. D., Sonn, G. A., Rusu, M.
2024
- **Evaluating Biparametric Versus Multiparametric Magnetic Resonance Imaging for Diagnosing Clinically Significant Prostate Cancer: An International, Paired, Noninferiority, Confirmatory Observer Study.** *European urology*
Twilt, J. J., Saha, A., Bosma, J. S., van Ginneken, B., Bjartell, A., Padhani, A. R., Bonekamp, D., Villeirs, G., Salomon, G., Giannarini, G., Kalpathy-Cramer, J., Barentsz, J., Maier-Hein, et al
2024
- **PViT-AIR: Puzzling vision transformer-based affine image registration for multi histopathology and faxitron images of breast tissue.** *Medical image analysis*
Golestani, N., Wang, A., Moallem, G., Bean, G. R., Rusu, M.
2024; 99: 103356
- **Trends in pre-biopsy MRI usage for prostate cancer detection, 2007-2022.** *Prostate cancer and prostatic diseases*
Soerensen, S. J., Li, S., Langston, M. E., Fan, R. E., Rusu, M., Sonn, G. A.
2024
- **Intraprocedural Diffusion-weighted Imaging for Predicting Ablation Zone during MRI-guided Focused Ultrasound of Prostate Cancer.** *Radiology. Imaging cancer*
Bitton, R. R., Shao, W., Chodakeiwitz, Y., Brunsing, R. L., Sonn, G., Rusu, M., Ghanouni, P.
2024; 6 (5): e240009
- **Inter-reader Agreement for Prostate Cancer Detection Using Micro-ultrasound: A Multi-institutional Study** *EUROPEAN UROLOGY OPEN SCIENCE*
Zhou, S. R., Choi, M., Vesal, S., Kinnaird, A., Brisbane, W. G., Lughezzani, G., Maffei, D., Fasulo, V., Albers, P., Zhang, L., Kornberg, Z., Fan, R. E., Shao, et al

2024; 66: 93-100

- **External validation of an artificial intelligence model for Gleason grading of prostate cancer on prostatectomy specimens.** *BJU international*
Schmidt, B., Soerensen, S. J., Bhambhani, H. P., Fan, R. E., Bhattacharya, I., Choi, M. H., Kunder, C. A., Kao, C. S., Higgins, J., Rusu, M., Sonn, G. A.
2024
- **Artificial intelligence and radiologists in prostate cancer detection on MRI (PI-CAI): an international, paired, non-inferiority, confirmatory study.** *The Lancet. Oncology*
Saha, A., Bosma, J. S., Twilt, J. J., van Ginneken, B., Bjartell, A., Padhani, A. R., Bonekamp, D., Villeirs, G., Salomon, G., Giannarini, G., Kalpathy-Cramer, J., Barentsz, J., Maier-Hein, et al
2024
- **Using Machine Learning Models to Identify Factors Associated With 30-Day Readmissions After Posterior Cervical Fusions: A Longitudinal Cohort Study.** *Neurospine*
Gonzalez-Suarez, A. D., Rezaii, P. G., Herrick, D., Tigchelaar, S. S., Ratliff, J. K., Rusu, M., Scheinker, D., Jeon, I., Desai, A. M.
2024
- **PREDICTORS OF TREATMENT FAILURE AFTER FOCAL HIGH-INTENSITY FOCUSED ULTRASOUND (HIFU) OF LOCALIZED PROSTATE CANCER**
Soerensen, S., Sommer, E. R., Zhou, S. R., Rusu, M., Fan, R. E., Sonn, G. A.
LIPPINCOTT WILLIAMS & WILKINS.2024: E411-E412
- **ARTIFICIAL INTELLIGENCE-ASSISTED PROSTATE CANCER DETECTION ON B-MODE TRANSRECTAL ULTRASOUND IMAGES**
Bhattacharya, I., Vesal, S., Jahanandish, H., Choi, M., Zhou, S., Kornberg, Z., Sommer, E., Fan, R. E., Brooks, J. D., Rusu, M., Sonn, G. A.
LIPPINCOTT WILLIAMS & WILKINS.2024: E511
- **AI VS. UROLOGISTS: A COMPARATIVE ANALYSIS FOR PROSTATE CANCER DETECTION ON TRANSRECTAL B-MODE ULTRASOUND**
Vesal, S., Bhattacharya, I., Jahanandish, H., Choi, M., Zhou, S., Kornberg, Z., Sommer, E., Fan, R. E., Rusu, M., Sonn, G. A.
LIPPINCOTT WILLIAMS & WILKINS.2024: E1056
- **RAPHIA: A deep learning pipeline for the registration of MRI and whole-mount histopathology images of the prostate.** *Computers in biology and medicine*
Shao, W., Vesal, S., Soerensen, S. J., Bhattacharya, I., Golestani, N., Yamashita, R., Kunder, C. A., Fan, R. E., Ghanouni, P., Brooks, J. D., Sonn, G. A., Rusu, M.
2024; 173: 108318
- **Improving Automated Prostate Cancer Detection and Classification Accuracy with Multi-scale Cancer Information**
Li, C., Bhattacharya, I., Vesal, S., Saunders, S., Soerensen, S., Fan, R. E., Sonn, G. A., Rusu, M.
edited by Cao, Xu, Rekik, Cui, Z., Ouyang
SPRINGER INTERNATIONAL PUBLISHING AG.2024: 341-350
- **A deep learning framework to assess the feasibility of localizing prostate cancer on b-mode transrectal ultrasound images**
Jahanandish, H., Vesal, S., Bhattacharya, I., Li, C., Fan, R. E., Sonn, G. A., Rusu, M.
edited by Boehm, B., Bottenus, N.
SPIE-INT SOC OPTICAL ENGINEERING.2024
- **Deep Learning for Prostate and Central Gland Segmentation on Micro-Ultrasound Images**
Zhang, L., Zhou, S., Choi, M., Fan, R. E., Sang, S., Sonn, G. A., Rusu, M.
edited by Boehm, B., Bottenus, N.
SPIE-INT SOC OPTICAL ENGINEERING.2024
- **SwinTransformer-Based Affine Registration of MRI and Ultrasound Images of the Prostate**
Sang, S., Jahanandish, H., Li, X., Vesal, S., Bhattacharya, I., Zhang, L., Fan, R. E., Sonn, G., Rusu, M.
edited by Boehm, B., Bottenus, N.
SPIE-INT SOC OPTICAL ENGINEERING.2024
- **Assessing breast cancer chemotherapy response in radiology and pathology reports via a Large Language Model**
Dodhia, P., Meepagala, S., Moallem, G., Rubin, D., Bean, G., Rusu, M.
edited by Yoshida, H., Wu, S.

SPIE-INT SOC OPTICAL ENGINEERING.2024

- **Automated Labeling of Spondylolisthesis Cases through Spinal MRI Radiology Report Interpretation using ChatGPT**
Moallem, G., Gonzalez, A., Desai, A., Rusu, M.
edited by Chen, W., Astley, S. M.
SPIE-INT SOC OPTICAL ENGINEERING.2024
- **ArtHiFy: Artificial Histopathology-style Features for Improving MRI-Based Prostate Cancer Detection**
Bhattacharya, I., Shao, W., Li, X., Soerensen, S. J. C., Fan, R. E., Ghanouni, P., Brooks, J. D., Sonn, G. A., Rusu, M.
edited by Chen, W., Astley, S. M.
SPIE-INT SOC OPTICAL ENGINEERING.2024
- **Prediction and Mapping of Intraprostatic Tumor Extent with Artificial Intelligence.** *European urology open science*
Priester, A., Fan, R. E., Shubert, J., Rusu, M., Vesal, S., Shao, W., Khandwala, Y. S., Marks, L. S., Natarajan, S., Sonn, G. A.
2023; 54: 20-27
- **Identification of Factors Associated With 30-Day Readmissions After Posterior Lumbar Fusion Using Machine Learning and Traditional Models: A National Longitudinal Database Study.** *Spine*
Rezaii, P. G., Herrick, D., Ratliff, J. K., Rusu, M., Scheinker, D., Desai, A. M.
2023
- **DETECTION OF CLINICALLY SIGNIFICANT PROSTATE CANCER ON MRI: A COMPARISON OF AN ARTIFICIAL INTELLIGENCE MODEL VERSUS RADIOLOGISTS**
Soerensen, S., Fan, R. E., Bhattacharya, I., Lim, D. S., Ahmadi, S., Li, X., Vesal, S., Rusu, M., Sonn, G. A.
LIPPINCOTT WILLIAMS & WILKINS.2023: E103
- **IMPROVING PROSTATE CANCER DETECTION ON MRI WITH DEEP LEARNING, CLINICAL VARIABLES, AND RADIOMICS**
Saunders, S., Li, X., Vesal, S., Bhattacharya, I., Soerensen, S. J. C., Fan, R. E., Rusu, M., Sonn, G. A.
LIPPINCOTT WILLIAMS & WILKINS.2023: E665
- **Learn2Reg: Comprehensive Multi-Task Medical Image Registration Challenge, Dataset and Evaluation in the Era of Deep Learning** *IEEE TRANSACTIONS ON MEDICAL IMAGING*
Hering, A., Hansen, L., Mok, T. C. W., Chung, A. C. S., Siebert, H., Hager, S., Lange, A., Kuckertz, S., Heldmann, S., Shao, W., Vesal, S., Rusu, M., Sonn, et al
2023; 42 (3): 697-712
- **MIC-CUSP: Multimodal Image Correlations for Ultrasound-Based Prostate Cancer Detection**
Bhattacharya, I., Vesal, S., Jahanandish, H., Choi, M., Zhou, S., Kornberg, Z., Sommer, E., Fan, R., Brooks, J., Sonn, G., Rusu, M.
edited by Kainz, B., Noble, A., Schnabel, J., Khanal, B., Muller, J. P., Day, T.
SPRINGER INTERNATIONAL PUBLISHING AG.2023: 121-131
- **BreastRegNet: A Deep Learning Framework for Registration of Breast Faxitron and Histopathology Images**
Golestani, N., Wang, A., Bean, G. R., Rusu, M.
edited by Hering, A., Woo, J., Silva, W., Li, Fu, H., Liu, Xing, F., Purushotham, S., Mathai, T. S., Mukherjee, P., DeGrauw, M., Tan, R. B., Corbetta, Kotter, E., Reyes, M., Baumgartner, C. F., Li, Q., Leahy, R., Dong, B., Chen, H., Huo, Y., Lv, J., Xu, Li, Mahapatra, D., Cheng, L., Petitjean, C., Presles, B.
SPRINGER INTERNATIONAL PUBLISHING AG.2023: 182-192
- **The Association of Tissue Change and Treatment Success During High-intensity Focused Ultrasound Focal Therapy for Prostate Cancer.** *European urology focus*
Khandwala, Y. S., Soerensen, S. J., Morissety, S., Ghanouni, P., Fan, R. E., Vesal, S., Rusu, M., Sonn, G. A.
2022
- **A review of artificial intelligence in prostate cancer detection on imaging.** *Therapeutic advances in urology*
Bhattacharya, I., Khandwala, Y. S., Vesal, S., Shao, W., Yang, Q., Soerensen, S. J., Fan, R. E., Ghanouni, P., Kunder, C. A., Brooks, J. D., Hu, Y., Rusu, M., Sonn, et al
2022; 14: 17562872221128791
- **Domain generalization for prostate segmentation in transrectal ultrasound images: A multi-center study.** *Medical image analysis*
Vesal, S., Gayo, I., Bhattacharya, I., Natarajan, S., Marks, L. S., Barratt, D. C., Fan, R. E., Hu, Y., Sonn, G. A., Rusu, M.
2022; 82: 102620

- **Evaluation of post-ablation mpMRI as a predictor of residual prostate cancer after focal high intensity focused ultrasound (HIFU) ablation.** *Urologic oncology*
Khandwala, Y. S., Morisettey, S., Ghanouni, P., Fan, R. E., Soerensen, S. J., Rusu, M., Sonn, G. A.
2022
- **Deep learning-based pseudo-mass spectrometry imaging analysis for precision medicine.** *Briefings in bioinformatics*
Shen, X., Shao, W., Wang, C., Liang, L., Chen, S., Zhang, S., Rusu, M., Snyder, M. P.
2022
- **Computational Detection of Extraprostatic Extension of Prostate Cancer on Multiparametric MRI Using Deep Learning.** *Cancers*
Moroianu, S. L., Bhattacharya, I., Seetharaman, A., Shao, W., Kunder, C. A., Sharma, A., Ghanouni, P., Fan, R. E., Sonn, G. A., Rusu, M.
2022; 14 (12)
- **Bridging the gap between prostate radiology and pathology through machine learning.** *Medical physics*
Bhattacharya, I., Lim, D. S., Aung, H. L., Liu, X., Seetharaman, A., Kunder, C. A., Shao, W., Soerensen, S. J., Fan, R. E., Ghanouni, P., To'o, K. J., Brooks, J. D., Sonn, et al
2022
- **Correlation of 68Ga-RM2 PET with Post-Surgery Histopathology Findings in Patients with Newly Diagnosed Intermediate- or High-Risk Prostate Cancer.** *Journal of nuclear medicine : official publication, Society of Nuclear Medicine*
Duan, H., Baratto, L., Fan, R. E., Soerensen, S. J., Liang, T., Chung, B. I., Thong, A. E., Gill, H., Kunder, C., Stoyanova, T., Rusu, M., Loening, A. M., Ghanouni, et al
2022
- **Image quality assessment for machine learning tasks using meta-reinforcement learning.** *Medical image analysis*
Saeed, S. U., Fu, Y., Stavrinides, V., Baum, Z. M., Yang, Q., Rusu, M., Fan, R. E., Sonn, G. A., Noble, J. A., Barratt, D. C., Hu, Y.
2022; 78: 102427
- **Collaborative Quantization Embeddings for Intra-subject Prostate MR Image Registration**
Shen, Z., Yang, Q., Shen, Y., Giganti, F., Stavrinides, V., Fan, R., Moore, C., Rusu, M., Sonn, G., Torr, P., Barratt, D., Hu, Y.
edited by Wang, L., Dou, Q., Fletcher, P. T., Speidel, S., Li, S.
SPRINGER INTERNATIONAL PUBLISHING AG.2022: 237-247
- **The Learn2Reg 2021 MICCAI Grand Challenge (PIMed Team)** *The Learn2Reg 2021 MICCAI Grand Challenge (PIMed Team)*
Shao, W., Vesal, S., Lim, D., Li, C., Golestani, N., Alsinan, A., Fan, R., Sonn, G., Rusu, M.
2022
- **Integrating zonal priors and pathomic MRI biomarkers for improved aggressive prostate cancer detection on MRI**
Bhattacharya, I., Shao, W., Soerensen, S. J. C., Fan, R. E., Wang, J. B., Kunder, C., Ghanouni, P., Sonn, G. A., Rusu, M.
edited by Drukker, K., Iftekharuddin, K. M.
SPIE-INT SOC OPTICAL ENGINEERING.2022
- **EXTERNAL VALIDATION OF AN ARTIFICIAL INTELLIGENCE ALGORITHM FOR PROSTATE CANCER GLEASON GRADING AND TUMOR QUANTIFICATION**
Schmidt, B., Bhambhvani, H. P., Fan, R. E., Kunder, C., Kao, C., Higgins, J. P., Rusu, M., Sonn, G. A.
LIPPINCOTT WILLIAMS & WILKINS.2021: E1004
- **Deep Learning Improves Speed and Accuracy of Prostate Gland Segmentations on Magnetic Resonance Imaging for Targeted Biopsy** *JOURNAL OF UROLOGY*
Soerensen, S., Fan, R. E., Seetharaman, A., Chen, L., Shao, W., Bhattacharya, I., Kim, Y., Sood, R., Borre, M., Chung, B., To'o, K. J., Rusu, M., Sonn, et al
2021; 206 (3): 605-612
- **DETAILED ANALYSIS OF MRI CONCORDANCE WITH PROSTATECTOMY HISTOPATHOLOGY USING DEEP LEARNING-BASED DIGITAL PATHOLOGY**
Hockman, L., Fan, R., Schmidt, B., Bhattacharya, I., Rusu, M., Sonn, G.
LIPPINCOTT WILLIAMS & WILKINS.2021: E813-E814
- **Geodesic density regression for correcting 4DCT pulmonary respiratory motion artifacts.** *Medical image analysis*
Shao, W., Pan, Y., Durumeric, O. C., Reinhardt, J. M., Bayouth, J. E., Rusu, M., Christensen, G. E.

2021; 72: 102140

- **Deep Learning Improves Speed and Accuracy of Prostate Gland Segmentations on MRI for Targeted Biopsy.** *The Journal of urology*
Soerensen, S. J., Fan, R. E., Seetharaman, A., Chen, L., Shao, W., Bhattacharya, I., Kim, Y., Sood, R., Borre, M., Chung, B. I., To'o, K. J., Rusu, M., Sonn, et al
2021: 101097JU0000000000001783
- **Automated Detection of Aggressive and Indolent Prostate Cancer on Magnetic Resonance Imaging.** *Medical physics*
Seetharaman, A., Bhattacharya, I., Chen, L. C., Kunder, C. A., Shao, W., Soerensen, S. J., Wang, J. B., Teslovich, N. C., Fan, R. E., Ghanouni, P., Brooks, J. D., To'o, K. J., Sonn, et al
2021
- **3D Registration of pre-surgical prostate MRI and histopathology images via super-resolution volume reconstruction.** *Medical image analysis*
Sood, R. R., Shao, W. n., Kunder, C. n., Teslovich, N. C., Wang, J. B., Soerensen, S. J., Madhuripan, N. n., Jawahar, A. n., Brooks, J. D., Ghanouni, P. n., Fan, R. E., Sonn, G. A., Rusu, et al
2021; 69: 101957
- **ProGNet: Prostate Gland Segmentation on MRI with Deep Learning**
Soerensen, S., Fan, R., Seetharaman, A., Chen, L., Shao, W., Bhattacharya, I., Borre, M., Chung, B., To'o, K., Sonn, G., Rusu, M.
edited by Isgum, Landman, B. A.
SPIE-INT SOC OPTICAL ENGINEERING.2021
- **Selective identification and localization of indolent and aggressive prostate cancers via CorrSigNIA: an MRI-pathology correlation and deep learning framework.** *Medical image analysis*
Bhattacharya, I., Seetharaman, A., Kunder, C., Shao, W., Chen, L. C., Soerensen, S. J., Wang, J. B., Teslovich, N. C., Fan, R. E., Ghanouni, P., Brooks, J. D., Sonn, G. A., Rusu, et al
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