Stanford

Richard E. Fan

Clinical Associate Professor, Urology

Bio

BIO

Richard E. Fan, Ph.D., is an engineer embedded in the Department of Urology in the Stanford School of Medicine.

Dr. Fan's research relates to the development of clinically driven biomedical instrumentation and medical devices. He is interested in translational application of emerging technologies in the medical and surgical spaces, as well as the development of platforms to explore clinical and pre-clinical evaluation. His primary work is currently focused on image guided detection and treatment of prostate cancer, including MR-US fusion, focal therapies, embedded systems and robotics.

ACADEMIC APPOINTMENTS

- Clinical Associate Professor, Urology
- Member, Wu Tsai Human Performance Alliance

ADMINISTRATIVE APPOINTMENTS

- Engineering Director, Urologic Cancer Innovation Lab, (2014- present)
- Undergraduate Programs, Stanford Byers Center for Biodesign, (2017- present)

HONORS AND AWARDS

- Fulbright Specialist, US State Department Bureau of Educational and Cultural Affairs (2023)

PROFESSIONAL EDUCATION

- PhD, UCLA , Biomedical Engineering (2010)
- MS, UCLA , Electrical Engineering (2006)
- BS, University of Arizona , Electrical Engineering (2005)

LINKS

- Urologic Cancer Innovation Lab: http://ucil.stanford.edu
- Stanford Byers Center for Biodesign: http://biodesign.stanford.edu
- https://orcid.org/0000-0001-7716-0377: https://orcid.org/0000-0001-7716-0377

Teaching

COURSES

2025-26

- Biodesign Fundamentals: MED 175B, MED 275B (Spr)
- Needs Finding for Medical Students: MED 260 (Win)
- Senior Capstone Design I: BIOE 141A (Aut)
- Senior Capstone Design II: BIOE 141B (Win)

2024-25

- Biodesign Fundamentals: MED 175B, MED 275B (Spr)
- Needs Finding for Medical Students: MED 260 (Win)
- Senior Capstone Design I: BIOE 141A (Aut)
- Senior Capstone Design II: BIOE 141B (Win)

2023-24

- Biodesign Fundamentals: MED 175B, MED 275B (Spr)
- Need Finding in Healthcare: MED 260 (Win)
- Senior Capstone Design I: BIOE 141A (Aut)
- Senior Capstone Design II: BIOE 141B (Win)

2022-23

- Biodesign Fundamentals: MED 175B, MED 275B (Spr)
- Biodesign: Need in Finding Healthcare: MED 260 (Aut)
- Senior Capstone Design I: BIOE 141A (Aut)
- Senior Capstone Design II: BIOE 141B (Win)

Publications

PUBLICATIONS

- **Enhancing foundation model transfer for prostate cancer detection with patch-level contrastive learning.** *NPJ digital medicine*
  Lee, J. H., Li, C. X., Jahanandish, H., Bhattacharya, I., Vesal, S., Song, Y., Zhang, L., Sang, S., Choi, M. H., Soerensen, S. J., Zhou, S. R., Sommer, E. R., Seibert, et al
  2026

- **Prostate Cancer Detection on Micro-Ultrasound Raw Data Using a Deep Learning Neural Network.** *Ultrasound in medicine & biology*
  El Kaffas, A., Tiyarattanachai, T., Rusu, M., Wodlinger, B., Fan, R. E., Liss, M., Rakow-Penner, R., Sonn, G. A.
  2026

- **A Clinicopathologic Review of 111 Prostate Biopsies Following High-Intensity Focused Ultrasound (HIFU) Therapy**
  Wu, D., Fan, R., Sangoi, A., Sonn, G., Chan, E.
  ELSEVIER SCIENCE INC.2026

- **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

- **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

- **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
- **Using Fiber Optic Bundles to Miniaturize Vision-Based Tactile Sensors** *IEEE TRANSACTIONS ON ROBOTICS*
  Di, J., Dugonjic, Z., Fu, W., Wu, T., Mercado, R., Sawyer, K., Most, V., Kammerer, G., Speidel, S., Fan, R. E., Sonn, G., Cutkosky, M. R., Lambeta, et al
  2025; 41: 62-81
- **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
- **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
- **Inter-reader Agreement for Prostate Cancer Detection Using Micro-ultrasound: A Multi-institutional Study.** *European urology open science*
  Zhou, S. R., Choi, M. H., 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
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- **External validation of an artificial intelligence model for Gleason grading of prostate cancer on prostatectomy specimens.** *BJU international*
  Schmidt, B., Soerensen, S. J., Bhambhvani, 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
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- **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.
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- **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.
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- **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.
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- **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

- **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

- **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

- **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., Morisetty, 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., Morisetty, S., Ghanouni, P., Fan, R. E., Soerensen, S. J., Rusu, M., Sonn, G. A.
  2022

- **Multi-institutional analysis of clinical and imaging risk factors for detecting clinically significant prostate cancer in men with PI-RADS 3 lesions.** *Cancer*
  Fang, A. M., Shumaker, L. A., Martin, K. D., Jackson, J. C., Fan, R. E., Khajir, G., Patel, H. D., Soodana-Prakash, N., Vourganti, S., Filson, C. P., Sonn, G. A., Sprenkle, P. C., Gupta, et al
  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.
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- **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

- **MULTI-INSTITUTIONAL ANALYSIS OF CLINICAL AND IMAGING RISK FACTORS FOR DETECTING CLINICALLY SIGNIFICANT PROSTATE CANCER IN MEN WITH PI-RADS 3 LESIONS**
  Fang, A., Shumaker, L., Martin, K., Onah, O., Jackson, J., Khajir, G., Fan, R., Soodana-Prakash, N., Patel, H., Vourganti, S., Filson, C., Sprenkle, P., Sonn, et al
  LIPPINCOTT WILLIAMS & WILKINS.2022: E959

- **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

- **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.
  edited by Aubreville, M., Zimmerer, D., Heinrich, M.
  SPRINGER INTERNATIONAL PUBLISHING AG.2022: 168-173

- **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

- **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

- **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

- **The stanford prostate cancer calculator: Development and external validation of online nomograms incorporating PIRADS scores to predict clinically significant prostate cancer.** *Urologic oncology*
  Wang, N. N., Zhou, S. R., Chen, L., Tibshirani, R., Fan, R. E., Ghanouni, P., Thong, A. E., To'o, K. J., Amirkhiz, K., Nix, J. W., Gordetsky, J. B., Sprenkle, P., Rais-Bahrami, et al
  2021

- **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
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- **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
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- **MR method for measuring microscopic histologic soft tissue textures.** *Magnetic resonance in medicine*
  Sonn, G. A., Fan, R. E., Kunder, C. A., Gold, G. E., James, K. M., Parker, I. D., Carlson, J. M., Cannizzaro, S. M., James, T. W.
  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

- **Adaptable Image Quality Assessment Using Meta-Reinforcement Learning of Task Amenability**
  Saeed, S. U., Fu, Y., Stavrinides, V., Baum, Z. M. C., Yang, Q., Rusu, M., Fan, R. E., Sonn, G. A., Noble, J., Barratt, D. C., Hu, Y.
  edited by Noble, J. A., Aylward, S., Grimwood, A., Min, Z., Lee, S. L., Hu, Y.
  SPRINGER INTERNATIONAL PUBLISHING AG.2021: 191-201

- **Clinically significant prostate cancer detection on MRI with self-supervised learning using image context restoration**
  Bolous, A., Seetharaman, A., Bhattacharya, I., Fan, R. E., Soerensen, S., Chen, L., Ghanouni, P., Sonn, G. A., Rusu, M.
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  SPIE-INT SOC OPTICAL ENGINEERING.2021

- **Optimization of a Thermal Flow Meter for Failure Management of the Shunt in Pediatric Hydrocephalus Patients.** *Annual International Conference of the IEEE Engineering in Medicine and Biology Society. IEEE Engineering in Medicine and Biology Society. Annual International Conference*
  Charles Chen, Z., Gary, A., Gupta, V., Grant, G., Fan, R. E.
  2021; 2021: 1551-1556

- **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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- **Weakly Supervised Registration of Prostate MRI and Histopathology Images**
  Shao, W., Bhattacharya, I., Soerensen, S. J. C., Kunder, C. A., Wang, J. B., Fan, R. E., Ghanouni, P., Brooks, J. D., Sonn, G. A., Rusu, M.

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SPRINGER INTERNATIONAL PUBLISHING AG.2021: 98-107

- **UTILITY OF PSA DENSITY IN PREDICTING UPGRADED GLEASON SCORE IN MEN ON ACTIVE SURVEILLANCE WITH NEGATIVE MRI.** *Urology*
  Press, B. H., Khajir, G., Ghabili, K., Leung, C., Fan, R. E., Wang, N. N., Leapman, M. S., Sonn, G. A., Sprenkle, P. C.
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- **Adaptable Image Quality Assessment Using Meta-Reinforcement Learning of Task Amenability**
  Saeed, S. U., Fu, Y., Stavrinides, V., Baum, Z. M. C., Yang, Q., Rusu, M., Fan, R. E., Sonn, G. A., Noble, J., Barratt, D. C., Hu, Y.
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  SPRINGER INTERNATIONAL PUBLISHING AG.2021: 191-201

- **Clinically significant prostate cancer detection on MRI with self-supervised learning using image context restoration**
  Bolous, A., Seetharaman, A., Bhattacharya, I., Fan, R. E., Soerensen, S., Chen, L., Ghanouni, P., Sonn, G. A., Rusu, M.
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  SPIE-INT SOC OPTICAL ENGINEERING.2021

- **Clinical -Prostate cancer Multicenter analysis of clinical and MRI characteristics associated with detecting clinically significant prostate cancer in PI-RADS (v2.0) category 3 lesions** *UROLOGIC ONCOLOGY-SEMINARS AND ORIGINAL INVESTIGATIONS*
  Al Awamlh, B., Marks, L. S., Sonn, G. A., Natarajan, S., Fan, R. E., Gross, M. D., Mauer, E., Banerjee, S., Hectors, S., Carlsson, S., Margolis, D. J., Hu, J. C.
  2020; 38 (7)

- **Registration of pre-surgical MRI and histopathology images from radical prostatectomy via RAPSODI.** *Medical physics*
  Rusu, M., Shao, W., Kunder, C. A., Wang, J. B., Soerensen, S. J., Teslovich, N. C., Sood, R. R., Chen, L. C., Fan, R. E., Ghanouni, P., Brooks, J. D., Sonn, G. A.
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- **Multicenter analysis of clinical and MRI characteristics associated with detecting clinically significant prostate cancer in PI-RADS (v2.0) category 3 lesions.** *Urologic oncology*
  Al Hussein Al Awamlh, B. n., Marks, L. S., Sonn, G. A., Natarajan, S. n., Fan, R. E., Gross, M. D., Mauer, E. n., Banerjee, S. n., Hectors, S. n., Carlsson, S. n., Margolis, D. J., Hu, J. C.
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- **ProsRegNet: A deep learning framework for registration of MRI and histopathology images of the prostate.** *Medical image analysis*
  Shao, W. n., Banh, L. n., Kunder, C. A., Fan, R. E., Soerensen, S. J., Wang, J. B., Teslovich, N. C., Madhuripan, N. n., Jawahar, A. n., Ghanouni, P. n., Brooks, J. D., Sonn, G. A., Rusu, et al
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- **Simultaneous transrectal ultrasound and photoacoustic human prostate imaging.** *Science translational medicine*
  Kothapalli, S., Sonn, G. A., Choe, J. W., Nikoozadeh, A., Bhuyan, A., Park, K. K., Cristman, P., Fan, R., Moini, A., Lee, B. C., Wu, J., Carver, T. E., Trivedi, et al
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- **Prostate Magnetic Resonance Imaging Interpretation Varies Substantially Across Radiologists** *EUROPEAN UROLOGY FOCUS*
  Sonn, G. A., Fan, R. E., Ghanouni, P., Wang, N. N., Brooks, J. D., Loening, A. M., Daniel, B. L., To'o, K. J., Thong, A. E., Leppert, J. T.
  2019; 5 (4): 592–99

- **How Often is the Dynamic Contrast Enhanced Score Needed in PI-RADS Version 2?** *Current problems in diagnostic radiology*
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