Stanford

Catherine Moran

Senior Research Scientist - Physical, Rad/Radiological Sciences Laboratory

SUPERVISORS

- Brian Hargreaves

Bio

CURRENT ROLE AT STANFORD

Senior Research Scientist

EDUCATION AND CERTIFICATIONS

- PhD, University of Wisconsin-Madison , Medical Physics (2009)
- MS, University of Wisconsin-Madison , Medical Physics (2006)
- BA, University of Chicago , Physics (1997)

Publications

PUBLICATIONS

- **Multishot Diffusion-Weighted MRI of the Breasts in the Supine vs. Prone Position.** *Journal of magnetic resonance imaging : JMRI*
  Moran, C. J., Middione, M. J., Mazzoli, V., McKay-Nault, J. A., Guidon, A., Waheed, U., Rosen, E. L., Poplack, S. P., Rosenberg, J., Ennis, D. B., Hargreaves, B. A., Daniel, B. L.
  2022
- **A method for measuring B0 field inhomogeneity using quantitative double-echo in steady-state.** *Magnetic resonance in medicine*
  Barbieri, M., Chaudhari, A. S., Moran, C. J., Gold, G. E., Hargreaves, B. A., Kogan, F.
  2022
- **Editorial for "Evaluating Tumor-Infiltrating Lymphocytes in Breast Cancer Using Preoperative MRI-based Radiomics".** *Journal of magnetic resonance imaging : JMRI*
  Moran, C. J.
  2021
- **Editorial for "Investigation of synthetic relaxometry and diffusion measures in the differentiation of benign and malignant breast lesions as compared to BI-RADS".** *Journal of magnetic resonance imaging : JMRI*
  Moran, C. J.
  2020
- **Multishot Diffusion-Weighted MRI of the Breast With Multiplexed Sensitivity Encoding (MUSE) and Shot Locally Low-Rank (Shot-LLR) Reconstructions.** *Journal of magnetic resonance imaging : JMRI*
  Hu, Y., Ikeda, D. M., Pittman, S. M., Samarawickrama, D., Guidon, A., Rosenberg, J., Chen, S., Okamoto, S., Daniel, B. L., Hargreaves, B. A., Moran, C. J.
  2020

- **Diffusion-weighted double-echo steady-state with a three-dimensional cones trajectory for non-contrast-enhanced breast MRI.** *Journal of magnetic resonance imaging : JMRI*
  Moran, C. J., Cheng, J. Y., Sandino, C. M., Carl, M. n., Alley, M. T., Rosenberg, J. n., Daniel, B. L., Pittman, S. M., Rosen, E. L., Hargreaves, B. A.
  2020
- **RUN-UP: Accelerated multishot diffusion-weighted MRI reconstruction using an unrolled network with U-Net as priors.** *Magnetic resonance in medicine*
  Hu, Y. n., Xu, Y. n., Tian, Q. n., Chen, F. n., Shi, X. n., Moran, C. J., Daniel, B. L., Hargreaves, B. A.
  2020
- **Motion-robust reconstruction of multishot diffusion-weighted images without phase estimation through locally low-rank regularization** *MAGNETIC RESONANCE IN MEDICINE*
  Hu, Y., Levine, E. G., Tian, Q., Moran, C. J., Wang, X., Taviani, V., Vasanawala, S. S., Mcnab, J. A., Daniel, B. L., Hargreaves, B. A.
  2019; 81 (2): 1181–90
- **Near-silent distortionless DWI using magnetization-prepared RUFIS.** *Magnetic resonance in medicine*
  Yuan, J. n., Hu, Y. n., Menini, A. n., Sandino, C. M., Sandberg, J. n., Sheth, V. n., Moran, C. J., Alley, M. n., Lustig, M. n., Hargreaves, B. n., Vasanawala, S. n.
  2019
- **Motion-robust reconstruction of multishot diffusion-weighted images without phase estimation through locally low-rank regularization.** *Magnetic resonance in medicine*
  Hu, Y., Levine, E. G., Tian, Q., Moran, C. J., Wang, X., Taviani, V., Vasanawala, S. S., McNab, J. A., Daniel, B. A., Hargreaves, B. L.
  2018
- **connective tissues in the knee using ultrashort echo-time double-echo steady-state (UTEDESS).** *Magnetic resonance in medicine*
  Chaudhari, A. S., Sveinsson, B., Moran, C. J., McWalter, E. J., Johnson, E. M., Zhang, T., Gold, G. E., Hargreaves, B. A.
  2017
- **Comparison of Magnetic Resonance Imaging and Computed Tomography for Breast Target Volume Delineation in Prone and Supine Positions** *INTERNATIONAL JOURNAL OF RADIATION ONCOLOGY BIOLOGY PHYSICS*
  Pogson, E. M., Delaney, G. P., Ahern, V., Boxer, M. M., Chan, C., David, S., Dimigen, M., Harvey, J. A., Koh, E., Lim, K., Papadatos, G., Yap, M. L., Batumalai, et al
  2016; 96 (4): 905-912
- **Rim Sign in Breast Lesions on Diffusion-Weighted Magnetic Resonance Imaging: Diagnostic Accuracy and Clinical Usefulness** *JOURNAL OF MAGNETIC RESONANCE IMAGING*
  Kang, B. J., Lipson, J. A., Planey, K. R., Zackrisson, S., Ikeda, D. M., Kao, J., Pal, S., Moran, C. J., Daniel, B. L.
  2015; 41 (3): 616-623
- **3D T2-Weighted Spin Echo Imaging in the Breast** *JOURNAL OF MAGNETIC RESONANCE IMAGING*
  Moran, C. J., Hargreaves, B. A., Saranathan, M., Lipson, J. A., Kao, J., Ikeda, D. M., Daniel, B. L.
  2014; 39 (2): 332-338
- **High-Resolution 3D Radial bSSFP with IDEAL** *MAGNETIC RESONANCE IN MEDICINE*
  Moran, C. J., Brodsky, E. K., Bancroft, L. H., Reeder, S. B., Yu, H., Kijowski, R., Engel, D., Block, W. F.
  2014; 71 (1): 95-104
- **Image quality and diagnostic performance of silicone-specific breast MRI.** *Magnetic resonance imaging*
  Kim, S. H., Lipson, J. A., Moran, C. J., Shimakawa, A., Kuo, J., Ikeda, D. M., Daniel, B. L.
  2013; 31 (9): 1472-1478
- **High resolution images of the breast.** *European journal of radiology*
  Moran, C. J., Saranathan, M., Nnewihe, A. N., Granlund, K. L., Alley, M. T., Daniel, B. L., Hargreaves, B. A.
  2012; 81: S101-3
- **Breast MRI without gadolinium: utility of 3D DESS, a new 3D diffusion weighted gradient-echo sequence.** *European journal of radiology*
  Daniel, B. L., Granlund, K. L., Moran, C. J., Alley, M. T., Lipson, J., Ikeda, D. M., Kao, J., Hargreaves, B. A.
  2012; 81: S24-6
- **Pilot Study of Improved Lesion Characterization in Breast MRI Using a 3D Radial Balanced SSFP Technique With Isotropic Resolution and Efficient Fat-Water Separation** *JOURNAL OF MAGNETIC RESONANCE IMAGING*
  Moran, C. J., Kelcz, F., Jung, Y., Brodsky, E. K., Fain, S. B., Block, W. F.

2009; 30 (1): 135-144