

# Stanford

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## Dwight Nishimura

Addie and Al Macovski Professor in the School of Engineering  
Electrical Engineering

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### Bio

#### BIO

Nishimura develops new acquisition and processing techniques for improved medical imaging.

#### ACADEMIC APPOINTMENTS

- Professor, Electrical Engineering
- Member, Bio-X
- Member, Cardiovascular Institute
- Member, Maternal & Child Health Research Institute (MCHRI)
- Member, Stanford Cancer Institute

#### LINKS

- Lab: <http://www-mrsrl.stanford.edu>
- Personal: <http://www-ee.stanford.edu/~dwight>

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### Research & Scholarship

#### CURRENT RESEARCH AND SCHOLARLY INTERESTS

medical imaging, magnetic resonance imaging

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### Teaching

#### COURSES

##### 2019-20

- Medical Imaging Systems II: EE 369B (Win)

##### 2018-19

- Medical Imaging Systems II: EE 369B (Win)

##### 2017-18

- Introduction to Bioimaging: EE 169 (Aut)
- Medical Imaging Systems II: EE 369B (Win)
- The Fourier Transform and Its Applications: EE 261 (Spr)

##### 2016-17

- Medical Imaging Systems I: EE 369A (Win)
- Medical Imaging Systems II: EE 369B (Spr)

## STANFORD ADVISEES

### Doctoral Dissertation Reader (AC)

Cagan Alkan, Shaimaa Bakr, Nandita Bhaskhar, Sarah Divel, Yuxin Hu, Stacey Huang, Philip Lee, Seul Lee, Ningrui Li, Onur Cezmi Mutlu, Kasra Naftchi-Ardebili, Christopher Sandino, Alex Toews, Xuerong Xiao

### Doctoral Dissertation Advisor (AC)

Anjali Datta, Kwangeun Jang, Sri Koundinyan, David Zeng

### Doctoral (Program)

Shaimaa Bakr, Thurston Brevett, Emily Dahl, Anjali Datta, Yuxin Hu, Sri Koundinyan, Philip Lee, Ningrui Li, Trisha Lian, Batu Ozturkler, Kris Quah, Liyue Shen, Lisa Yamada

## Publications

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### PUBLICATIONS

- **Combined T2 -preparation and multidimensional outer volume suppression for coronary artery imaging with 3D cones trajectories.** *Magnetic resonance in medicine*  
Zeng, D. Y., Baron, C. A., Malave, M. O., Kerr, A. B., Yang, P. C., Hu, B. S., Nishimura, D. G.  
2019
- **Banding-free balanced SSFP cardiac cine using frequency modulation and phase cycle redundancy.** *Magnetic resonance in medicine*  
Datta, A., Nishimura, D. G., Baron, C. A.  
2019
- **Whole-heart coronary MR angiography using a 3D cones phyllotaxis trajectory** *MAGNETIC RESONANCE IN MEDICINE*  
Malave, M. O., Baron, C. A., Addy, N., Cheng, J. Y., Yang, P. C., Hu, B. S., Nishimura, D. G.  
2019; 81 (2): 1092–1103
- **Deep residual network for off-resonance artifact correction with application to pediatric body MRA with 3D cones.** *Magnetic resonance in medicine*  
Zeng, D. Y., Shaikh, J., Holmes, S., Brunsing, R. L., Pauly, J. M., Nishimura, D. G., Vasanaawala, S. S., Cheng, J. Y.  
2019
- **Whole-heart coronary MR angiography using a 3D cones phyllotaxis trajectory.** *Magnetic resonance in medicine*  
Malave, M. O., Baron, C. A., Addy, N. O., Cheng, J. Y., Yang, P. C., Hu, B. S., Nishimura, D. G.  
2018
- **Rapid compressed sensing reconstruction of 3D non-Cartesian MRI** *MAGNETIC RESONANCE IN MEDICINE*  
Baron, C. A., Dwork, N., Pauly, J. M., Nishimura, D. G.  
2018; 79 (5): 2685–92
- **Mitigation of near-band balanced steady-state free precession through-plane flow artifacts using partial dephasing.** *Magnetic resonance in medicine*  
Datta, A., Cheng, J. Y., Hargreaves, B. A., Baron, C. A., Nishimura, D. G.  
2018; 79 (6): 2944–53
- **3D image-based navigators for coronary MR angiography** *MAGNETIC RESONANCE IN MEDICINE*  
Addy, N. O., Ingle, R. R., Luo, J., Baron, C. A., Yang, P. C., Hu, B. S., Nishimura, D. G.  
2017; 77 (5): 1874–1883
- **Nonrigid Motion Correction With 3D Image-Based Navigators for Coronary MR Angiography** *MAGNETIC RESONANCE IN MEDICINE*  
Luo, J., Addy, N. O., Ingle, R. R., Baron, C. A., Cheng, J. Y., Hu, B. S., Nishimura, D. G.  
2017; 77 (5): 1884–1893

- **Measuring B-1 distributions by B-1 phase encoding** *MAGNETIC RESONANCE IN MEDICINE*  
Jordanova, K. V., Nishimura, D. G., Kerr, A. B.  
2017; 77 (1): 229-236
- **High-resolution diffusion-weighted imaging of the breast with multiband 2D radiofrequency pulses and a generalized parallel imaging reconstruction** *MAGNETIC RESONANCE IN MEDICINE*  
Taviani, V., Alley, M. T., Banerjee, S., Nishimura, D. G., Daniel, B. L., Vasanawala, S. S., Hargreaves, B. A.  
2017; 77 (1): 209-220
- **Reduced Field-of-View DWI with Robust Fat Suppression and Unrestricted Slice Coverage Using Tilted 2D RF Excitation** *MAGNETIC RESONANCE IN MEDICINE*  
Banerjee, S., Nishimura, D. G., Shankaranarayanan, A., Saritas, E. U.  
2016; 76 (6): 1668-1676
- **B0 mapping using rewinding trajectories (BMART).** *Magnetic resonance in medicine*  
Baron, C. A., Nishimura, D. G.  
2016
- **Robust self-navigated body MRI using dense coil arrays.** *Magnetic resonance in medicine*  
Zhang, T., Cheng, J. Y., Chen, Y., Nishimura, D. G., Pauly, J. M., Vasanawala, S. S.  
2016; 76 (1): 197-205
- **3D image-based navigators for coronary MR angiography.** *Magnetic resonance in medicine*  
Addy, N. O., Ingle, R. R., Luo, J., Baron, C. A., Yang, P. C., Hu, B. S., Nishimura, D. G.  
2016
- **Nonrigid motion correction with 3D image-based navigators for coronary MR angiography.** *Magnetic resonance in medicine*  
Luo, J., Addy, N. O., Ingle, R. R., Baron, C. A., Cheng, J. Y., Hu, B. S., Nishimura, D. G.  
2016
- **Lowering the B1 threshold for improved BEAR B1 mapping.** *Magnetic resonance in medicine*  
Jordanova, K. V., Nishimura, D. G., Kerr, A. B.  
2016; 75 (3): 1262-1268
- **Measuring B1 distributions by B1 phase encoding.** *Magnetic resonance in medicine*  
Jordanova, K. V., Nishimura, D. G., Kerr, A. B.  
2016
- **High-resolution diffusion-weighted imaging of the breast with multiband 2D radiofrequency pulses and a generalized parallel imaging reconstruction.** *Magnetic resonance in medicine*  
Taviani, V., Alley, M. T., Banerjee, S., Nishimura, D. G., Daniel, B. L., Vasanawala, S. S., Hargreaves, B. A.  
2016
- **Combined Outer Volume Suppression and T-2 Preparation Sequence for Coronary Angiography** *MAGNETIC RESONANCE IN MEDICINE*  
Luo, J., Addy, N. O., Ingle, R. R., Hargreaves, B. A., Hu, B. S., Nishimura, D. G., Shin, T.  
2015; 74 (6): 1632-1639
- **Non-contrast-enhanced peripheral angiography using a sliding interleaved cylinder acquisition** *MAGNETIC RESONANCE IN MEDICINE*  
Kwon, K. T., Kerr, A. B., Wu, H. H., Hu, B. S., Brittain, J. H., Nishimura, D. G.  
2015; 74 (3): 727-738
- **High-resolution variable-density 3D cones coronary MRA.** *Magnetic resonance in medicine*  
Addy, N. O., Ingle, R. R., Wu, H. H., Hu, B. S., Nishimura, D. G.  
2015; 74 (3): 614-621
- **Non-contrast-enhanced peripheral angiography using a sliding interleaved cylinder acquisition.** *Magnetic resonance in medicine*  
Kwon, K. T., Kerr, A. B., Wu, H. H., Hu, B. S., Brittain, J. H., Nishimura, D. G.  
2015; 74 (3): 727-738
- **High-resolution variable-density 3D cones coronary MRA** *MAGNETIC RESONANCE IN MEDICINE*

- Addy, N. O., Ingle, R. R., Wu, H. H., Hu, B. S., Nishimura, D. G.  
2015; 74 (3): 614-621
- **Self-Gated Fat-Suppressed Cardiac Cine MRI** *MAGNETIC RESONANCE IN MEDICINE*  
Ingle, R. R., Santos, J. M., Overall, W. R., McConnell, M. V., Hu, B. S., Nishimura, D. G.  
2015; 73 (5): 1764-1774
  - **Combined outer volume suppression and T2 preparation sequence for coronary angiography.** *Magnetic resonance in medicine*  
Luo, J., Addy, N. O., Ingle, R. R., Hargreaves, B. A., Hu, B. S., Nishimura, D. G., Shin, T.  
2015; 74 (6): 1632-39
  - **Rapid single-breath-hold 3D late gadolinium enhancement cardiac MRI using a stack-of-spirals acquisition.** *Journal of magnetic resonance imaging*  
Shin, T., Lustig, M., Nishimura, D. G., Hu, B. S.  
2014; 40 (6): 1496-1502
  - **Rapid Single-Breath-Hold 3D Late Gadolinium Enhancement Cardiac MRI Using a Stack-of-Spirals Acquisition** *JOURNAL OF MAGNETIC RESONANCE IMAGING*  
Shin, T., Lustig, M., Nishimura, D. G., Hu, B. S.  
2014; 40 (6): 1496-1502
  - **Hadamard Slice Encoding for Reduced-FOV Diffusion-Weighted Imaging** *MAGNETIC RESONANCE IN MEDICINE*  
Saritas, E. U., Lee, D., Cukur, T., Shankaranarayanan, A., Nishimura, D. G.  
2014; 72 (5): 1277-1290
  - **Hadamard slice encoding for reduced-FOV diffusion-weighted imaging.** *Magnetic resonance in medicine*  
Saritas, E. U., Lee, D., Çukur, T., Shankaranarayanan, A., Nishimura, D. G.  
2014; 72 (5): 1277-1290
  - **B1 estimation using adiabatic refocusing: BEAR.** *Magnetic resonance in medicine*  
Jordanova, K. V., Nishimura, D. G., Kerr, A. B.  
2014; 72 (5): 1302-1310
  - **B-1 Estimation Using Adiabatic Refocusing: BEAR** *MAGNETIC RESONANCE IN MEDICINE*  
Jordanova, K. V., Nishimura, D. G., Kerr, A. B.  
2014; 72 (5): 1302-1310
  - **Parameter estimation approach to banding artifact reduction in balanced steady-state free precession.** *Magnetic resonance in medicine*  
Björk, M., Ingle, R. R., Gudmundson, E., Stoica, P., Nishimura, D. G., Barral, J. K.  
2014; 72 (3): 880-892
  - **The feasibility of assessing branched-chain amino acid metabolism in cellular models of prostate cancer with hyperpolarized [1-(13)C]-ketoisocaproate.** *Magnetic resonance imaging*  
Billingsley, K. L., Park, J. M., Josan, S., Hurd, R., Mayer, D., Spielman-Sun, E., Nishimura, D. G., Brooks, J. D., Spielman, D.  
2014; 32 (7): 791-795
  - **Nonrigid autofocus motion correction for coronary MR angiography with a 3D cones trajectory.** *Magnetic resonance in medicine*  
Ingle, R. R., Wu, H. H., Addy, N. O., Cheng, J. Y., Yang, P. C., Hu, B. S., Nishimura, D. G.  
2014; 72 (2): 347-361
  - **Three-Dimensional Magnetization-Prepared Imaging Using a Concentric Cylinders Trajectory** *MAGNETIC RESONANCE IN MEDICINE*  
Kwon, K. T., Wu, H. H., Shin, T., Cukur, T., Lustig, M., Nishimura, D. G.  
2014; 71 (5): 1700-1710
  - **Collectivity evolution in the neutron-rich Pd isotopes toward the N=82 shell closure** *PHYSICAL REVIEW C*  
Wang, H., Aoi, N., Takeuchi, S., Matsushita, M., Doornenbal, P., Motobayashi, T., Steppenbeck, D., Yoneda, K., Baba, H., Caceres, L., Dombradi, Z., Kobayashi, K., Kondo, et al  
2013; 88 (5)
  - **Off-resonance-robust velocity-selective magnetization preparation for non-contrast-enhanced peripheral MR angiography.** *Magnetic resonance in medicine*  
Shin, T., Hu, B. S., Nishimura, D. G.

2013; 70 (5): 1229-1240

- **Noncontrast-enhanced renal angiography using multiple inversion recovery and alternating TR balanced steady-state free precession** *MAGNETIC RESONANCE IN MEDICINE*  
Dong, H. Z., Worters, P. W., Wu, H. H., Ingle, R. R., Vasanaawala, S. S., Nishimura, D. G.  
2013; 70 (2): 527-536
- **Non-contrast-enhanced renal and abdominal MR angiography using velocity-selective inversion preparation.** *Magnetic resonance in medicine*  
Shin, T., Worters, P. W., Hu, B. S., Nishimura, D. G.  
2013; 69 (5): 1268-1275
- **Reproducibility study for free-breathing measurements of pyruvate metabolism using hyperpolarized <sup>13</sup>C in the heart** *MAGNETIC RESONANCE IN MEDICINE*  
Wu, H. H., Gurney, P. T., Hu, B. S., Nishimura, D. G., McConnell, M. V.  
2013; 69 (4): 1083-1093
- **Three-dimensional first-pass myocardial perfusion MRI using a stack-of-spirals acquisition** *MAGNETIC RESONANCE IN MEDICINE*  
Shin, T., Nayak, K. S., Santos, J. M., Nishimura, D. G., Hu, B. S., McConnell, M. V.  
2013; 69 (3): 839-844
- **Free-breathing multiphase whole-heart coronary MR angiography using image-based navigators and three-dimensional cones imaging.** *Magnetic resonance in medicine : official journal of the Society of Magnetic Resonance in Medicine / Society of Magnetic Resonance in Medicine*  
Wu, H. H., Gurney, P. T., Hu, B. S., Nishimura, D. G., McConnell, M. V.  
2013; 69 (4): 1083-93
- **Clinical Evaluation of Reduced Field-of-View Diffusion-Weighted Imaging of the Cervical and Thoracic Spine and Spinal Cord** *AMERICAN JOURNAL OF NEURORADIOLOGY*  
Andre, J. B., Zaharchuk, G., Saritas, E., Komakula, S., Shankaranarayan, A., Banerjee, S., Rosenberg, J., Nishimura, D. G., Fischbein, N. J.  
2012; 33 (10): 1860-1866
- **Theranostic effect of serial manganese-enhanced magnetic resonance imaging of human embryonic stem cell derived teratoma** *MAGNETIC RESONANCE IN MEDICINE*  
Chung, J., Dash, R., Kee, K., Barral, J. K., Kosuge, H., Robbins, R. C., Nishimura, D., Reijo-Pera, R. A., Yang, P. C.  
2012; 68 (2): 595-599
- **Simple method for MR gradient system characterization and k-space trajectory estimation** *MAGNETIC RESONANCE IN MEDICINE*  
Addy, N. O., Wu, H. H., Nishimura, D. G.  
2012; 68 (1): 120-129
- **Methods for registration of magnetic resonance images of ex vivo prostate specimens with histology** *JOURNAL OF MAGNETIC RESONANCE IMAGING*  
Kimm, S. Y., Tarin, T. V., Lee, J. H., Hu, B., Jensen, K., Nishimura, D., Brooks, J. D.  
2012; 36 (1): 206-212
- **The central signal singularity phenomenon in balanced SSFP and its application to positive-contrast imaging** *MAGNETIC RESONANCE IN MEDICINE*  
Ingle, R. R., Cukur, T., Nishimura, D. G.  
2012; 67 (6): 1673-1683
- **High-resolution Diffusion-weighted Magnetic Resonance Imaging in Patients with Locally Advanced Breast Cancer** *ACADEMIC RADIOLOGY*  
Singer, L., Wilmes, L. J., Saritas, E. U., Shankaranarayanan, A., Proctor, E., Wisner, D. J., Chang, B., Joe, B. N., Nishimura, D. G., Hylton, N. M.  
2012; 19 (5): 526-534
- **A k-space analysis of small-tip-angle excitation. 1989.** *Journal of magnetic resonance*  
Pauly, J., Nishimura, D., Macovski, A.  
2011; 213 (2): 544-557
- **Introduction to: A k-space analysis of small-tip-angle excitation.** *Journal of magnetic resonance*  
Pauly, J. M., Nishimura, D. G., Macovski, A.  
2011; 213 (2): 558-559
- **Initial Experience with Five-Dimensional Cardiac-Respiratory Ventricular Function Evaluation Using a Novel Magnetic Resonance Imaging Technique** *Scientific Sessions of the American-Heart-Association/Resuscitation Science Symposium*

Wu, H. H., Nishimura, D. G., McConnell, M. V., Hu, B. S.  
LIPPINCOTT WILLIAMS & WILKINS.2011

- **In vivo Molecular MRI of Cell Survival and Teratoma Formation Following Embryonic Stem Cell Transplantation Into the Injured Murine Myocardium** *MAGNETIC RESONANCE IN MEDICINE*  
Chung, J., Kee, K., Barral, J. K., Dash, R., Kosuge, H., Wang, X., Weissman, I., Robbins, R. C., Nishimura, D., Quertermous, T., Reijo-Pera, R. A., Yang, P. C.  
2011; 66 (5): 1374-1381
- **Three-dimensional fluid-suppressed T2-prep flow-independent peripheral angiography using balanced SSFP** *MAGNETIC RESONANCE IMAGING*  
Bangerter, N. K., Cukur, T., Hargreaves, B. A., Hu, B. S., Brittain, J. H., Park, D., Gold, G. E., Nishimura, D. G.  
2011; 29 (8): 1119-1124
- **A Molecular MRI Probe to Detect Treatment of Cardiac Apoptosis In Vivo** *MAGNETIC RESONANCE IN MEDICINE*  
Dash, R., Chung, J., Chan, T., Yamada, M., Barral, J., Nishimura, D., Yang, P. C., Simpson, P. C.  
2011; 66 (4): 1152-1162
- **Real-Time Motion Correction for High-Resolution Larynx Imaging** *MAGNETIC RESONANCE IN MEDICINE*  
Barral, J. K., Santos, J. M., Damrose, E. J., Fischbein, N. J., Nishimura, D. G.  
2011; 66 (1): 174-179
- **Reduced Field-of-View Diffusion Imaging of the Human Spinal Cord: Comparison with Conventional Single-Shot Echo-Planar Imaging** *AMERICAN JOURNAL OF NEURORADIOLOGY*  
Zaharchuk, G., Saritas, E. U., Andre, J. B., CHIN, C. T., Rosenberg, J., Brosnan, T. J., Shankaranarayan, A., Nishimura, D. G., Fischbein, N. J.  
2011; 32 (5): 813-820
- **Signal Compensation and Compressed Sensing for Magnetization-Prepared MR Angiography** *IEEE TRANSACTIONS ON MEDICAL IMAGING*  
Cukur, T., Lustig, M., Saritas, E. U., Nishimura, D. G.  
2011; 30 (5): 1017-1027
- **Magnetization-Prepared IDEAL bSSFP: A Flow-Independent Technique for Noncontrast-Enhanced Peripheral Angiography** *JOURNAL OF MAGNETIC RESONANCE IMAGING*  
Cukur, T., Shimakawa, A., Yu, H., Hargreaves, B. A., Hu, B. S., Nishimura, D. G., Brittain, J. H.  
2011; 33 (4): 931-939
- **SNR Dependence of Optimal Parameters for Apparent Diffusion Coefficient Measurements** *IEEE TRANSACTIONS ON MEDICAL IMAGING*  
Saritas, E. U., Lee, J. H., Nishimura, D. G.  
2011; 30 (2): 424-437
- **FeCo/Graphite Nanocrystals for Multi-Modality Imaging of Experimental Vascular Inflammation** *PLOS ONE*  
Kosuge, H., Sherlock, S. P., Kitagawa, T., Terashima, M., Barral, J. K., Nishimura, D. G., Dai, H., McConnell, M. V.  
2011; 6 (1)
- **Right coronary wall cmr in the older asymptomatic advance cohort: positive remodeling and associations with type 2 diabetes and coronary calcium** *JOURNAL OF CARDIOVASCULAR MAGNETIC RESONANCE*  
Terashima, M., Nguyen, P. K., Rubin, G. D., Meyer, C. H., Shimakawa, A., Nishimura, D. G., Ehara, S., Iribarren, C., Courtney, B. K., Go, A. S., Hlatky, M. A., Fortmann, S. P., McConnell, et al  
2010; 12
- **A Robust Methodology for In Vivo T-1 Mapping** *MAGNETIC RESONANCE IN MEDICINE*  
Barral, J. K., Gudmundson, E., Stikov, N., Etezadi-Amoli, M., Stoica, P., Nishimura, D. G.  
2010; 64 (4): 1057-1067
- **3D Magnetization-Prepared Imaging Using a Stack-of-Rings Trajectory** *MAGNETIC RESONANCE IN MEDICINE*  
Wu, H. H., Nishimura, D. G.  
2010; 63 (5): 1210-1218
- **Variable-Density Parallel Imaging With Partially Localized Coil Sensitivities** *IEEE TRANSACTIONS ON MEDICAL IMAGING*  
Cukur, T., Santos, J. M., Pauly, J. M., Nishimura, D. G.  
2010; 29 (5): 1173-1181
- **In Vivo High-Resolution Magnetic Resonance Skin Imaging at 1.5 T and 3 T** *MAGNETIC RESONANCE IN MEDICINE*

- Barral, J. K., Bangerter, N. K., Hu, B. S., Nishimura, D. G.  
2010; 63 (3): 790-796
- **Positive Contrast with Alternating Repetition Time SSFP (PARTS): A Fast Imaging Technique for SPIO-Labeled Cells** *MAGNETIC RESONANCE IN MEDICINE*  
Cukur, T., Yamada, M., Overall, W. R., Yang, P., Nishimura, D. G.  
2010; 63 (2): 427-437
  - **High-Contrast In Vivo Visualization of Microvessels Using Novel FeCo/GC Magnetic Nanocrystals** *MAGNETIC RESONANCE IN MEDICINE*  
Lee, J. H., Sherlock, S. P., Terashima, M., Kosuge, H., Suzuki, Y., Goodwin, A., Robinson, J., Seo, W. S., Liu, Z., Luong, R., McConnell, M. V., Nishimura, D. G., Dai, et al  
2009; 62 (6): 1497-1509
  - **In vivo Kinetics of Embryonic Stem Cell Viability Following Transplantation Into the Injured Murine Myocardium** *82nd National Conference and Exhibitions and Scientific Sessions of the American-Heart-Association*  
Chung, J., Kee, K., Barral, J. K., Dash, R., Weissman, I., Quertermous, T., Robbins, R. C., Nishimura, D. G., Reijo-Pera, R. A., Yang, P. C.  
LIPPINCOTT WILLIAMS & WILKINS.2009: S310-S311
  - **Manganese-Guided Cellular MRI of Human Embryonic Stem Cell and Human Bone Marrow Stromal Cell Viability** *MAGNETIC RESONANCE IN MEDICINE*  
Yamada, M., Gurney, P. T., Chung, J., Kundu, P., Drukker, M., Smith, A. K., Weissman, I. L., Nishimura, D., Robbins, R. C., Yang, P. C.  
2009; 62 (4): 1047-1054
  - **Multiple Repetition Time Balanced Steady-State Free Precession Imaging** *MAGNETIC RESONANCE IN MEDICINE*  
Cukur, T., Nishimura, D. G.  
2009; 62 (1): 193-204
  - **Non-contrast-Enhanced Flow-Independent Peripheral MR Angiography with Balanced SSFP** *MAGNETIC RESONANCE IN MEDICINE*  
Cukur, T., Lee, J. H., Bangerter, N. K., Hargreaves, B. A., Nishimura, D. G.  
2009; 61 (6): 1533-1539
  - **Anisotropic field-of-view shapes for improved PROPELLER imaging** *MAGNETIC RESONANCE IMAGING*  
Larson, P. E., Lustig, M. S., Nishimura, D. G.  
2009; 27 (4): 470-479
  - **Improving Non-contrast-Enhanced Steady-State Free Precession Angiography with Compressed Sensing** *MAGNETIC RESONANCE IN MEDICINE*  
Cukur, T., Lustig, M., Nishimura, D. G.  
2009; 61 (5): 1122-1131
  - **Fat/Water Separation Using a Concentric Rings Trajectory** *MAGNETIC RESONANCE IN MEDICINE*  
Wu, H. H., Lee, J. H., Nishimura, D. G.  
2009; 61 (3): 639-649
  - **Multiple-profile homogeneous image combination: Application to phase-cycled SSFP and multicoil imaging** *MAGNETIC RESONANCE IN MEDICINE*  
Cukur, T., Lustig, M., Nishimura, D. G.  
2008; 60 (3): 732-738
  - **DWI of the spinal cord with reduced FOV single-shot EPI** *MAGNETIC RESONANCE IN MEDICINE*  
Saritas, E. U., Cunningham, C. H., Lee, J. H., Han, E. T., Nishimura, D. G.  
2008; 60 (2): 468-473
  - **Fat-water separation with alternating repetition time balanced SSFP** *MAGNETIC RESONANCE IN MEDICINE*  
Cukur, T., Nishimura, D. G.  
2008; 60 (2): 479-484
  - **Full-brain coverage and high-resolution Imaging capabilities of passband b-SSFP fMRI at 3T** *MAGNETIC RESONANCE IN MEDICINE*  
Lee, J. H., Dumoulin, S. O., Saritas, E. U., Glover, G. H., Wandell, B. A., Nishimura, D. G., Pauly, J. M.  
2008; 59 (5): 1099-1110
  - **Synthesis and characterization of PVP-coated large core iron oxide nanoparticles as an MRI contrast agent** *NANOTECHNOLOGY*  
Lee, H., Lee, S., Xu, C., Xie, J., Lee, J., Wu, B., Koh, A. L., Wang, X., Sinclair, R., Xwang, S., Nishimura, D. G., Biswal, S., Sun, et al

2008; 19 (16)

- **MRI using a concentric rings trajectory** *MAGNETIC RESONANCE IN MEDICINE*  
Wu, H. H., Lee, J. H., Nishimura, D. G.  
2008; 59 (1): 102-112
- **Anisotropic field-of-views in radial imaging** *IEEE TRANSACTIONS ON MEDICAL IMAGING*  
Larson, P. E., Gurney, P. T., Nishimura, D. G.  
2008; 27 (1): 47-57
- **Synthesis and characterization of PVP-coated large core iron oxide nanoparticles as an MRI contrast agent.** *Nanotechnology*  
Lee, H. Y., Lee, S. H., Xu, C., Xie, J., Lee, J. H., Wu, B., Koh, A. L., Wang, X., Sinclair, R., Wang, S. X., Nishimura, D. G., Biswal, S., Sun, et al  
2008; 19 (16): 165101
- **Varying kernel-extent gridding reconstruction for undersampled variable-density spirals** *MAGNETIC RESONANCE IN MEDICINE*  
Cukur, T., Santos, J. M., Nishimura, D. G., Pauly, J. M.  
2008; 59 (1): 196-201
- **Enhanced spectral shaping in steady-state free precession imaging** *MAGNETIC RESONANCE IN MEDICINE*  
Cukur, T., Bangerter, N. K., Nishimura, D. G.  
2007; 58 (6): 1216-1223
- **Using adiabatic inversion pulses for long-T-2 suppression in ultrashort echo time (UTE) imaging** *MAGNETIC RESONANCE IN MEDICINE*  
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