

Stanford



John M. Pauly

Reid Weaver Dennis Professor
Electrical Engineering

Bio

BIO

Interests include medical imaging generally, and magnetic resonance imaging (MRI) in particular. Current efforts are focused on medical applications of MRI where real-time interactive imaging is important. Two examples are cardiac imaging, and the interactive guidance of interventional procedures. Specific interests include rapid methods for the excitation and acquisition of the MR signal, and the reconstruction of images from the data acquired using these approaches.

ACADEMIC APPOINTMENTS

- Professor, Electrical Engineering
- Member, Bio-X
- Member, Cardiovascular Institute
- Member, Stanford Cancer Institute
- Member, Wu Tsai Neurosciences Institute

HONORS AND AWARDS

- Fellow, International Society for Magnetic Resonance in Medicine (2005)
- Fellow, IEEE (2022)
- Gold Medal, International Society of Magnetic Resonance in Medicine (2012)

PROFESSIONAL EDUCATION

- PhD, Stanford University (1990)

LINKS

- MRSRL Web Site: <http://www-mrsrl.stanford.edu>

Teaching

COURSES

2025-26

- Analog and Digital Communication Systems: EE 179 (Win)
- Signals and Systems II: EE 102B (Spr)

2024-25

- Medical Image Reconstruction: EE 369C (Aut)
- Signals and Systems II: EE 102B (Spr)
- The Electrical Engineering Profession: EE 100 (Aut)
- The Wireless World, and the Data You Leak: EE 26N (Win)

2023-24

- Analog and Digital Communication Systems: EE 179 (Win)
- Dream It, Build It!: EE 11SC (Sum)
- Medical Imaging Systems II: BMP 269B, EE 369B (Spr)
- RF Pulse Design for Magnetic Resonance Imaging: EE 469B (Aut)
- The Electrical Engineering Profession: EE 100 (Aut)

2022-23

- Dream It, Build It!: EE 11SC (Sum)
- Introduction to Bioimaging: EE 169 (Aut)
- Mechanical Prototyping for Electrical Engineers: EE 64SI (Win)
- Medical Imaging Systems II: BMP 269B, EE 369B (Win)
- The Electrical Engineering Profession: EE 100 (Aut)
- The Wireless World, and the Data You Leak: EE 26N (Win)

STANFORD ADVISEES

Doctoral Dissertation Reader (AC)

Daniel Abraham, George Alexopoulos, Jaehyeok Bae, Onat Dalmaz, Liliana Edmonds, West Foster, Linus Hein, Renesmee Kuo, Yimeng Lin, Sabrina Liu, William Meng, Favour Nerrise, Chiadika Obinwa, Syamantak Payra, Allan Raventos Knohr, Joanna Sands, Zachary Shah, Karan Singh, Caelia Thomas, Kamila Thompson, Alex Toews, Yonatan Urman, Yuxin Wu, Ridvan Yesiloglu, Xuetong Zhou

Orals Chair

Jay Qu

Doctoral Dissertation Advisor (AC)

Lara Arikan, Matt McCready, Irmak Sivgin, Mahmut Yurt

Master's Program Advisor

Sam Chen, Xinrui Jiang, Rohan Karunaratne, Sonia Kim, Erik Kizior, Yuheng Wu

Doctoral (Program)

Daniel Abraham, Jaehyeok Bae, Rachel Barcklay, Hasan Atakan Bedel, Onat Dalmaz, Andy Dimnaku, Alisa Hathaway, Bella Hofflich, Wonkyeong Lee, Yimeng Lin, Sabrina Liu, Matt McCready, Deepro Pasha, Karan Singh, Irmak Sivgin, Alex Sun, Alice Tor, Jiaqi Wu, Yuxin Wu, Mahmut Yurt

Publications

PUBLICATIONS

- **OPTIKS: Optimized Gradient Properties Through Timing in k -Space** *IEEE TRANSACTIONS ON MEDICAL IMAGING*
McCready, M. A., Cao, X., Setsompop, K., Pauly, J. M., Kerr, A. B.
2026; 45 (4): 1651-1660
- **Semi-supervision for clinical contrast-weighted image synthesis from magnetic resonance fingerprinting.** *Magma (New York, N.Y.)*

- Yurt, M., Alkan, C., Cao, X., Liao, C., Zhou, Z., Cukur, T., Syed, A., Pauly, J., Vasawala, S., Setsompop, K.
2026
- **DM-Net: a physics-model-independent direct mapping approach for calibration-free multi-coil MRI.** *Research square*
Wu, Y., Alkan, C., Oscanoa, J., Sun, A., Setsompop, K., Syed, A., Ma, Y., Liao, C., Alley, M., Zhang, F., Pauly, J., Vasawala, S.
2025
 - **Using deep feature distances for evaluating the perceptual quality of MR image reconstructions.** *Magnetic resonance in medicine*
Adamson, P. M., Desai, A. D., Dominic, J., Varma, M., Bluethgen, C., Wood, J. P., Syed, A. B., Boutin, R. D., Stevens, K. J., Vasawala, S., Pauly, J. M., Gunel, B., Chaudhari, et al
2025
 - **A 60-channel high-density flexible receive array for pediatric abdominal MRI.** *Magnetic resonance in medicine*
Lee, W., Stickle, Y., Follante, C., Grafendorfer, T., Yang, T., Robb, F., Zhang, F., Pauly, J., Scott, G., Vasawala, S., Syed, A.
2025
 - **MRI Retrospective Respiratory Gating and Cardiac Sensing by CW Doppler Radar: A Feasibility Study** *IEEE TRANSACTIONS ON BIOMEDICAL ENGINEERING*
Lee, W., Ryu, K., Li, Z., Oscanoa, J., Wu, Y., Robb, F., Vasawala, S., Pauly, J., Scott, G.
2025; 72 (1): 112-122
 - **JOINT OPTIMIZATION OF SAMPLING PATTERN AND RECONSTRUCTION FOR DYNAMIC MRI**
Alkan, C., Oscanoa, J., Zhu, X., Syed, A., Vasawala, S., Pauly, J., IEEE
IEEE.2025
 - **AutoSamp: Autoencoding k-space Sampling via Variational Information Maximization for 3D MRI.** *IEEE transactions on medical imaging*
Alkan, C., Mardani, M., Liao, C., Li, Z., Vasawala, S. S., Pauly, J. M.
2024; PP
 - **Missing Wedge Completion via Unsupervised Learning with Coordinate Networks.** *International journal of molecular sciences*
Van Veen, D., Galaz-Montoya, J. G., Shen, L., Baldwin, P., Chaudhari, A. S., Lyumkis, D., Schmid, M. F., Chiu, W., Pauly, J.
2024; 25 (10)
 - **Missing Wedge Completion via Unsupervised Learning with Coordinate Networks.** *bioRxiv : the preprint server for biology*
Van Veen, D., Galaz-Montoya, J. G., Shen, L., Baldwin, P., Chaudhari, A. S., Lyumkis, D., Schmid, M. F., Chiu, W., Pauly, J.
2024
 - **Adapted large language models can outperform medical experts in clinical text summarization.** *Nature medicine*
Van Veen, D., Van Uden, C., Blankemeier, L., Delbrouck, J. B., Aali, A., Bluethgen, C., Pareek, A., Polacin, M., Reis, E. P., Seehofnerová, A., Rohatgi, N., Hosamani, P., Collins, et al
2024
 - **Clinical Text Summarization: Adapting Large Language Models Can Outperform Human Experts.** *Research square*
Veen, D. V., Uden, C. V., Blankemeier, L., Delbrouck, J. B., Aali, A., Bluethgen, C., Pareek, A., Polacin, M., Reis, E. P., Seehofnerova, A., Rohatgi, N., Hosamani, P., Collins, et al
2023
 - **Erratum: "Ultra-low-dose PET reconstruction using generative adversarial network with feature matching and task-specific perceptual loss".** *Medical physics*
Ouyang, J., Chen, K. T., Gong, E., Pauly, J., Zaharchuk, G.
2023; 50 (9): 5932
 - **Noise2Recon: Enabling SNR-robust MRI reconstruction with semi-supervised and self-supervised learning.** *Magnetic resonance in medicine*
Desai, A. D., Ozturkler, B. M., Sandino, C. M., Boutin, R., Willis, M., Vasawala, S., Hargreaves, B. A., Re, C., Pauly, J. M., Chaudhari, A. S.
2023
 - **Optimization in the space domain for density compensation with the nonuniform FFT.** *Magnetic resonance imaging*
Dwork, N., O'Connor, D., Johnson, E. M., Baron, C. A., Gordon, J. W., Pauly, J. M., Larson, P. E.
2023

- **Automated MRI Field of View Prescription from Region of Interest Prediction by Intra-Stack Attention Neural Network.** *Bioengineering (Basel, Switzerland)*
Lei, K., Syed, A. B., Zhu, X., Pauly, J. M., Vasanawala, S. V.
2023; 10 (1)
- **SLfRank: Shinnar-Le-Roux Pulse Design with Reduced Energy and Accurate Phase Profiles using Rank Factorization.** *IEEE transactions on medical imaging*
Ong, F., Zhong, Z., Liao, C., Lustig, M., Vasanawala, S. S., Pauly, J. M.
2022; PP
- **Deep Learning-Based Water-Fat Separation from Dual-Echo Chemical Shift-Encoded Imaging.** *Bioengineering (Basel, Switzerland)*
Wu, Y., Alley, M., Li, Z., Datta, K., Wen, Z., Sandino, C., Syed, A., Ren, H., Xing, L., Lustig, M., Pauly, J., Vasanawala, S.
2022; 9 (10)
- **A Semi-Blind Calibration and Compensation Method for Dynamic Range Recovery of Low-Power Pre-Amplifiers in MRI Receive Chains.** *IEEE transactions on medical imaging*
Vassos, C., Robb, F., Vasanawala, S., Pauly, J., Scott, G.
2022; PP
- **Rapid fat-water separated T1 mapping using a single shot radial inversion-recovery spoiled gradient recalled pulse sequence.** *NMR in biomedicine*
Li, Z., Mathew, M., Syed, A. B., Feng, L., Brunsing, R., Pauly, J. M., Vasanawala, S. S.
2022
- **A geometry-informed deep learning framework for ultra-sparse 3D tomographic image reconstruction.** *Computers in biology and medicine*
Shen, L., Zhao, W., Capaldi, D., Pauly, J., Xing, L.
2022: 105710
- **NeRP: Implicit Neural Representation Learning With Prior Embedding for Sparsely Sampled Image Reconstruction.** *IEEE transactions on neural networks and learning systems*
Shen, L., Pauly, J., Xing, L.
2022; PP
- **A Geometry-Informed Deep Learning Framework for Ultra-Sparse 3D Tomographic Image Reconstruction**
Shen, L., Zhao, W., Pauly, J., Xing, L.
ELSEVIER IRELAND LTD.2022: S287-S288
- **Novel-view X-ray projection synthesis through geometry-integrated deep learning.** *Medical image analysis*
Shen, L., Yu, L., Zhao, W., Pauly, J., Xing, L.
2022; 77: 102372
- **Attention-guided deep learning for gestational age prediction using fetal brain MRI.** *Scientific reports*
Shen, L., Zheng, J., Lee, E. H., Shpanskaya, K., McKenna, E. S., Atluri, M. G., Plasto, D., Mitchell, C., Lai, L. M., Guimaraes, C. V., Dahmouh, H., Chueh, J., Halabi, et al
1800; 12 (1): 1408
- **Artifact- and content-specific quality assessment for MRI with image rulers.** *Medical image analysis*
Lei, K., Syed, A. B., Zhu, X., Pauly, J. M., Vasanawala, S. S.
1800; 77: 102344
- **Scale-Equivariant Unrolled Neural Networks for Data-Efficient Accelerated MRI Reconstruction**
Gunel, B., Sahiner, A., Desai, A. D., Chaudhari, A. S., Vasanawala, S., Pilanci, M., Pauly, J.
edited by Wang, L., Dou, Q., Fletcher, P. T., Speidel, S., Li, S.
SPRINGER INTERNATIONAL PUBLISHING AG.2022: 737-747
- **Unraveling Attention via Convex Duality: Analysis and Interpretations of Vision Transformers**
Sahiner, A., Ergen, T., Ozturkler, B., Pauly, J., Mardani, M., Pilanci, M.
edited by Chaudhuri, K., Jegelka, S., Song, L., Szepesvari, C., Niu, G., Sabato, S.
JMLR-JOURNAL MACHINE LEARNING RESEARCH.2022: 19050-19088

- **Learned Compression of High Dimensional Image Datasets**
Cole, E., Meng, Q., Pauly, J., Vasanawala, S., IEEE
IEEE.2022: 1747-1751
- **Utilizing the Wavelet Transform's Structure in Compressed Sensing.** *Signal, image and video processing*
Dwork, N., O'Connor, D., Baron, C. A., Johnson, E. M., Kerr, A. B., Pauly, J. M., Larson, P. E.
2021; 15 (7): 1407-1414
- **Biopsy Marker Localization with Thermo-Acoustic Ultrasound for Lumpectomy Guidance.** *Medical physics*
Dixit, N., Daniel, B. L., Hargreaves, B. A., Pauly, J. M., Scott, G. C.
2021
- **Multi-Domain Image Completion for Random Missing Input Data** *IEEE TRANSACTIONS ON MEDICAL IMAGING*
Shen, L., Zhu, W., Wang, X., Xing, L., Pauly, J. M., Turkbey, B., Harmon, S., Sanford, T., Mehralivand, S., Choyke, P. L., Wood, B. J., Xu, D.
2021; 40 (4): 1113–22
- **Utilizing the wavelet transform's structure in compressed sensing** *SIGNAL IMAGE AND VIDEO PROCESSING*
Dwork, N., O'Connor, D., Baron, C. A., Johnson, E. M., Kerr, A. B., Pauly, J. M., Larson, P. E. Z.
2021
- **Analysis of deep complex-valued convolutional neural networks for MRI reconstruction and phase-focused applications.** *Magnetic resonance in medicine*
Cole, E. n., Cheng, J. n., Pauly, J. n., Vasanawala, S. n.
2021
- **Ultra-low-dose 18F-FDG brain PET/MR denoising using deep learning and multi-contrast information**
Xu, J., Gong, E., Ouyang, J., Pauly, J., Zaharchuk, G.
edited by Isgum, Landman, B. A.
SPIE-INT SOC OPTICAL ENGINEERING.2021
- **Deep learning and multi-contrast based denoising for low-SNR Arterial Spin Labeling (ASL) MRI**
Gong, E., Guo, J., Liu, J., Fan, A., Pauly, J., Zaharchuk, G.
edited by Isgum, Landman, B. A.
SPIE-INT SOC OPTICAL ENGINEERING.2021
- **Fast Unsupervised MRI Reconstruction Without Fully-Sampled Ground Truth Data Using Generative Adversarial Networks**
Cole, E. K., Ong, F., Vasanawala, S. S., Pauly, J. M., IEEE Comp Soc
IEEE COMPUTER SOC.2021: 3971-3980
- **Wasserstein GANs for MR Imaging: From Paired to Unpaired Training** *IEEE TRANSACTIONS ON MEDICAL IMAGING*
Lei, K., Mardani, M., Pauly, J. M., Vasanawala, S. S.
2021; 40 (1): 105–15
- **Uncertainty Quantification in Deep MRI Reconstruction** *IEEE TRANSACTIONS ON MEDICAL IMAGING*
Edupuganti, V., Mardani, M., Vasanawala, S., Pauly, J.
2021; 40 (1): 239–50
- **Synthesize High-Quality Multi-Contrast Magnetic Resonance Imaging From Multi-Echo Acquisition Using Multi-Task Deep Generative Model** *IEEE TRANSACTIONS ON MEDICAL IMAGING*
Wang, G., Gong, E., Banerjee, S., Martin, D., Tong, E., Choi, J., Chen, H., Wintermark, M., Pauly, J. M., Zaharchuk, G.
2020; 39 (10): 3089–99
- **Rosette Trajectories Enable Ungated, Motion-Robust, Simultaneous Cardiac and Liver T2 * Iron Assessment.** *Journal of magnetic resonance imaging : JMIR*
Bush, A. M., Sandino, C. M., Ramachandran, S., Ong, F., Dwork, N., Zucker, E. J., Syed, A. B., Pauly, J. M., Alley, M. T., Vasanawala, S. S.
2020: e27196
- **Two-dimensional UTE overview imaging for dental application.** *Magnetic resonance in medicine*
Stumpf, K., Kaye, E., Paul, J., Wundrak, S., Pauly, J. M., Rasche, V.
2020

- **Multi-scale Unrolled Deep Learning Framework for Accelerated Magnetic Resonance Imaging.** *Proceedings. IEEE International Symposium on Biomedical Imaging*
Nakarmi, U., Cheng, J. Y., Rios, E. P., Mardani, M., Pauly, J. M., Ying, L., Vasanawala, S. S.
2020; 2020: 1056–59
- **DIAGNOSTIC IMAGE QUALITY ASSESSMENT AND CLASSIFICATION IN MEDICAL IMAGING: OPPORTUNITIES AND CHALLENGES.** *Proceedings. IEEE International Symposium on Biomedical Imaging*
Ma, J. J., Nakarmi, U., Kin, C. Y., Sandino, C. M., Cheng, J. Y., Syed, A. B., Wei, P., Pauly, J. M., Vasanawala, S. S.
2020; 2020: 337-340
- **Multi-scale Unrolled Deep Learning Framework for Accelerated Magnetic Resonance Imaging**
Nakarmi, U., Cheng, J. Y., Rios, E. P., Mardani, M., Pauly, J. M., Ying, L., Vasanawala, S. S., IEEE
IEEE.2020: 1052–55
- **Fast variable density Poisson-disc sample generation with directional variation for compressed sensing in MRI.** *Magnetic resonance imaging*
Dwork, N. n., Baron, C. A., Johnson, E. M., O'Connor, D. n., Pauly, J. M., Larson, P. E.
2020
- **Compressed Sensing: From Research to Clinical Practice With Deep Neural Networks: Shortening Scan Times for Magnetic Resonance Imaging** *IEEE SIGNAL PROCESSING MAGAZINE*
Sandino, C. M., Cheng, J. Y., Chen, F., Mardani, M., Pauly, J. M., Vasanawala, S. S.
2020; 37 (1): 117–27
- **Compressed Sensing: From Research to Clinical Practice with Deep Neural Networks.** *IEEE signal processing magazine*
Sandino, C. M., Cheng, J. Y., Chen, F., Mardani, M., Pauly, J. M., Vasanawala, S. S.
2020; 37 (1): 111-127
- **DIAGNOSTIC IMAGE QUALITY ASSESSMENT AND CLASSIFICATION IN MEDICAL IMAGING: OPPORTUNITIES AND CHALLENGES**
Ma, J. J., Nakarmi, U., Kin, C., Sandino, C. M., Cheng, J. Y., Syed, A. B., Wei, P., Pauly, J. M., Vasanawala, S. S., IEEE
IEEE.2020: 337–40
- **Ultra-low-dose PET Reconstruction using Generative Adversarial Network with Feature Matching and Task-Specific Perceptual Loss.** *Medical physics*
Ouyang, J., Chen, K. T., Gong, E., Pauly, J., Zaharchuk, G.
2019
- **An MRI Compatible RF MEMs Controlled Wireless Power Transfer System** *IEEE TRANSACTIONS ON MICROWAVE THEORY AND TECHNIQUES*
Byron, K., Winkler, S. A., Robb, F., Vasanawala, S., Pauly, J., Scott, G.
2019; 67 (5): 1717–26
- **An MRI Compatible RF MEMs Controlled Wireless Power Transfer System.** *IEEE transactions on microwave theory and techniques*
Byron, K., Winkler, S. A., Robb, F., Vasanawala, S., Pauly, J., Scott, G.
2019; 67 (5): 1717-1726
- **Evaluation of a Flexible 12-Channel Screen-printed Pediatric MRI Coil** *RADIOLOGY*
Winkler, S., Corea, J., Lechene, B., O'Brien, K., Bonanni, J., Chaulhari, A., Alley, M., Taviani, V., Grafendorfer, T., Robb, F., Seem, G., Pauly, J., Lustig, et al
2019; 291 (1): 179–84
- **Evaluation of a Flexible 12-Channel Screen-printed Pediatric MRI Coil.** *Radiology*
Winkler, S. A., Corea, J., Lechene, B., O'Brien, K., Bonanni, J. R., Chaudhari, A., Alley, M., Taviani, V., Grafendorfer, T., Robb, F., Scott, G., Pauly, J., Lustig, et al
2019: 181883
- **Data-driven self-calibration and reconstruction for non-cartesian wave-encoded single-shot fast spin echo using deep learning.** *Journal of magnetic resonance imaging : JMIR*
Chen, F. n., Cheng, J. Y., Taviani, V. n., Sheth, V. R., Brunsing, R. L., Pauly, J. M., Vasanawala, S. S.
2019

- **Thermo-acoustic ultrasound for noninvasive temperature monitoring at lead tips during MRI.** *Magnetic resonance in medicine*
Dixit, N. n., Pauly, J. M., Scott, G. C.
2019
- **Task-GAN: Improving Generative Adversarial Network for Image Reconstruction**
Ouyang, J., Wang, G., Gong, E., Chen, K., Pauly, J., Zaharchuk, G.
edited by Knoll, F., Maier, A., Rueckert, D., Ye, J. C.
SPRINGER INTERNATIONAL PUBLISHING AG.2019: 193–204
- **Accelerated MRI Reconstruction with Dual-Domain Generative Adversarial Network**
Wang, G., Gong, E., Banerjee, S., Pauly, J., Zaharchuk, G.
edited by Knoll, F., Maier, A., Rueckert, D., Ye, J. C.
SPRINGER INTERNATIONAL PUBLISHING AG.2019: 47–57
- **Deep Generative Adversarial Neural Networks for Compressive Sensing MRI** *IEEE TRANSACTIONS ON MEDICAL IMAGING*
Mardani, M., Gong, E., Cheng, J. Y., Vasanawala, S. S., Zaharchuk, G., Xing, L., Pauly, J. M.
2019; 38 (1): 167–79
- **Automatically Determining the Confocal Parameters From OCT B-Scans for Quantification of the Attenuation Coefficients** *IEEE TRANSACTIONS ON MEDICAL IMAGING*
Dwork, N., Smith, G. T., Leng, T., Pauly, J. M., Bowden, A. K.
2019; 38 (1): 261–68
- **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. n., Holmes, S. n., Brunsing, R. L., Pauly, J. M., Nishimura, D. G., Vasanawala, S. S., Cheng, J. Y.
2019
- **Ultra-Low-Dose 18F-Florbetaben Amyloid PET Imaging Using Deep Learning with Multi-Contrast MRI Inputs.** *Radiology*
Chen, K. T., Gong, E., de Carvalho Macruz, F. B., Xu, J., Boumis, A., Khalighi, M., Poston, K. L., Sha, S. J., Greicius, M. D., Mormino, E., Pauly, J. M., Srinivas, S., Zaharchuk, et al
2018: 180940
- **Hyperpolarized 13C MRI: Path to Clinical Translation in Oncology.** *Neoplasia (New York, N.Y.)*
Kurhanewicz, J., Vigneron, D. B., Ardenkjaer-Larsen, J. H., Bankson, J. A., Brindle, K., Cunningham, C. H., Gallagher, F. A., Keshari, K. R., Kjaer, A., Laustsen, C., Mankoff, D. A., Merritt, M. E., Nelson, et al
2018; 21 (1): 1–16
- **Technique development of 3D dynamic CS-EPSI for hyperpolarized C-13 pyruvate MR molecular imaging of human prostate cancer** *MAGNETIC RESONANCE IN MEDICINE*
Chen, H., Larson, P. E. Z., Gordon, J. W., Bok, R. A., Ferrone, M., van Criekinge, M., Carvajal, L., Cao, P., Pauly, J. M., Kerr, A. B., Park, I., Slater, J. B., Nelson, et al
2018; 80 (5): 2062–72
- **Variable-Density Single-Shot Fast Spin-Echo MRI with Deep Learning Reconstruction by Using Variational Networks** *RADIOLOGY*
Chen, F., Taviani, V., Malkiel, I., Cheng, J. Y., Tamir, J. I., Shaikh, J., Chang, S. T., Hardy, C. J., Pauly, J. M., Vasanawala, S. S.
2018; 289 (2): 366–73
- **Quantitative susceptibility mapping using deep neural network: QSMnet** *NEUROIMAGE*
Yoon, J., Gong, E., Chatnuntawech, I., Bilgic, B., Lee, J., Jung, W., Ko, J., Jung, H., Setsompop, K., Zaharchuk, G., Kim, E., Pauly, J., Lee, et al
2018; 179: 199–206
- **ISLES 2016 and 2017-Benchmarking Ischemic Stroke Lesion Outcome Prediction Based on Multispectral MRI** *FRONTIERS IN NEUROLOGY*
Winzeck, S., Hakim, A., McKinley, R., Pinto, J. R., Alves, V., Silva, C., Pisov, M., Krivov, E., Belyaev, M., Monteiro, M., Oliveira, A., Choi, Y., Palk, et al
2018; 9
- **ISLES 2016 and 2017-Benchmarking Ischemic Stroke Lesion Outcome Prediction Based on Multispectral MRI.** *Frontiers in neurology*
Winzeck, S., Hakim, A., McKinley, R., Pinto, J. A., Alves, V., Silva, C., Pisov, M., Krivov, E., Belyaev, M., Monteiro, M., Oliveira, A., Choi, Y., Paik, et al
2018; 9: 679

- **Variable-Density Single-Shot Fast Spin-Echo MRI with Deep Learning Reconstruction by Using Variational Networks.** *Radiology*
Chen, F., Taviani, V., Malkiel, I., Cheng, J. Y., Tamir, J. I., Shaikh, J., Chang, S. T., Hardy, C. J., Pauly, J. M., Vasanaawala, S. S.
2018; 180445
- **Body diffusion-weighted imaging using magnetization prepared single-shot fast spin echo and extended parallel imaging signal averaging** *MAGNETIC RESONANCE IN MEDICINE*
Gibbons, E. K., Vasanaawala, S. S., Pauly, J. M., Kerr, A. B.
2018; 79 (6): 3032–44
- **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
- **Deep learning enables reduced gadolinium dose for contrast-enhanced brain MRI.** *Journal of magnetic resonance imaging : JMRI*
Gong, E., Pauly, J. M., Wintermark, M., Zaharchuk, G.
2018
- **Thermo-Acoustic Ultrasound for Detection of RF-Induced Device Lead Heating in MRI** *IEEE TRANSACTIONS ON MEDICAL IMAGING*
Dixit, N., Stang, P. P., Pauly, J. M., Scott, G. C.
2018; 37 (2): 536–46
- **Self-Calibrating Wave-Encoded Variable-Density Single-Shot Fast Spin Echo Imaging.** *Journal of magnetic resonance imaging : JMRI*
Chen, F. n., Taviani, V. n., Tamir, J. I., Cheng, J. Y., Zhang, T. n., Song, Q. n., Hargreaves, B. A., Pauly, J. M., Vasanaawala, S. S.
2018; 47 (4): 954–66
- **A Wireless Power Transfer System for MRI Scanners**
Byron, K., Robb, F., Vasanaawala, S., Pauly, J., Scott, G., IEEE
IEEE.2018
- **Neural Proximal Gradient Descent for Compressive Imaging**
Mardani, M., Sun, Q., Vasawana, S., Pappayan, V., Monajemi, H., Pauly, J., Donoho, D.
edited by Bengio, S., Wallach, H., Larochelle, H., Grauman, K., CesaBianchi, N., Garnett, R.
NEURAL INFORMATION PROCESSING SYSTEMS (NIPS).2018
- **Advancements in Low-cost, Long Endurance, Altitude Controlled Latex Balloons (ValBal)**
Sushko, A., Tedjarati, A., Creus-Costa, J., Marshland, K., Brown, P., Regland, D., Dean, J., Maldonado, S., Pauly, J. M., IEEE
IEEE.2018
- **Robust Self-Calibrating nCPMG Acquisition: Application to Body Diffusion-Weighted Imaging** *IEEE TRANSACTIONS ON MEDICAL IMAGING*
Gibbons, E. K., Le Roux, P., Vasanaawala, S. S., Pauly, J. M., Kerr, A. B.
2018; 37 (1): 200–209
- **An RF-gated wireless power transfer system for wireless MRI receive arrays** *CONCEPTS IN MAGNETIC RESONANCE PART B-MAGNETIC RESONANCE ENGINEERING*
Byron, K., Robb, F., Stang, P., Vasanaawala, S., Pauly, J., Scott, G.
2017; 47B (4)
- **Frequency shifting reduces but does not eliminate acoustic interference between echolocating bats: A theoretical analysis.** *The Journal of the Acoustical Society of America*
Perkins, M. L., Frank, H. K., Pauly, J. M., Hadly, E. A.
2017; 142 (4): 2133
- **An RF-gated wireless power transfer system for wireless MRI receive arrays.** *Concepts in magnetic resonance. Part B, Magnetic resonance engineering*
Byron, K., Robb, F., Stang, P., Vasanaawala, S., Pauly, J., Scott, G.
2017; 47B (4)
- **Comprehensive Multi-Dimensional MRI for the Simultaneous Assessment of Cardiopulmonary Anatomy and Physiology.** *Scientific reports*
Cheng, J. Y., Zhang, T., Alley, M. T., Uecker, M., Lustig, M., Pauly, J. M., Vasanaawala, S. S.

2017; 7 (1): 5330

- **Resolving phase ambiguity in dual-echo dixon imaging using a projected power method** *MAGNETIC RESONANCE IN MEDICINE*
Zhang, T., Chen, Y., Bao, S., Alley, M. T., Pauly, J. M., Hargreaves, B. A., Vasanawala, S. S.
2017; 77 (5): 2066-2076
- **Slice profile effects on nCPMG SS-FSE.** *Magnetic resonance in medicine*
Gibbons, E. K., Le Roux, P., Pauly, J. M., Kerr, A. B.
2017
- **Improved cortical bone specificity in UTE MR Imaging** *MAGNETIC RESONANCE IN MEDICINE*
Johnson, E. M., Vyas, U., Ghanouni, P., Pauly, K. B., Pauly, J. M.
2017; 77 (2): 684-695
- **A Millimeter-Wave Digital Link for Wireless MRI** *IEEE TRANSACTIONS ON MEDICAL IMAGING*
Aggarwal, K., Joshi, K. R., Rajavi, Y., Taghivand, M., Pauly, J. M., Poon, A. S., Scott, G.
2017; 36 (2): 574-583
- **Body Diffusion Weighted Imaging Using Non-CPMG Fast Spin Echo** *IEEE TRANSACTIONS ON MEDICAL IMAGING*
Gibbons, E. K., Le Roux, P., Vasanawala, S. S., Pauly, J. M., Kerr, A. B.
2017; 36 (2): 549-559
- **Formulation of image fusion as a constrained least squares optimization problem.** *Journal of medical imaging (Bellingham, Wash.)*
Dwork, N., Lasry, E. M., Pauly, J. M., Balbás, J.
2017; 4 (1): 014003-?
- **Frequency shifting reduces but does not eliminate acoustic interference between echolocating bats: A theoretical analysis** *The Journal of the Acoustical Society of America*
Perkins, M. L., Frank, H. K., Pauly, J. M., Hadly, E. A.
2017; 142: 2133
- **Recurrent Generative Adversarial Neural Networks for Compressive Imaging**
Mardani, M., Gong, E., Cheng, J. Y., Pauly, J., Xing, L., IEEE
IEEE.2017
- **Autocalibrating motion-corrected wave-encoding for highly accelerated free-breathing abdominal MRI.** *Magnetic resonance in medicine*
Chen, F., Zhang, T., Cheng, J. Y., Shi, X., Pauly, J. M., Vasanawala, S. S.
2016
- **Depletion-Mode GaN HEMT Q-Spoil Switches for MRI Coils** *IEEE TRANSACTIONS ON MEDICAL IMAGING*
Lu, J. Y., Grafendorfer, T., Zhang, T., Vasanawala, S., Robb, F., Pauly, J. M., Scott, G. C.
2016; 35 (12): 2558-2567
- **Body diffusion weighted imaging using non-CPMG fast spin echo.** *IEEE transactions on medical imaging*
Gibbons, E., Le Roux, P., Vasanawala, S., Pauly, J., Kerr, A.
2016: -?
- **Spectrally selective three-dimensional dynamic balanced steady-state free precession for hyperpolarized C-13 metabolic imaging with spectrally selective radiofrequency pulses.** *Magnetic resonance in medicine*
Shang, H., Sukumar, S., Von Morze, C., Bok, R. A., Marco-Rius, I., Kerr, A., Reed, G. D., Milshteyn, E., Ohliger, M. A., Kurhanewicz, J., Larson, P. E., Pauly, J. M., Vigneron, et al
2016
- **A semiflexible 64-channel receive-only phased array for pediatric body MRI at 3T.** *Magnetic resonance in medicine*
Zhang, T., Grafendorfer, T., Cheng, J. Y., Ning, P., Rainey, B., Giancola, M., Ortman, S., Robb, F. J., Calderon, P. D., Hargreaves, B. A., Lustig, M., Scott, G. C., Pauly, et al
2016; 76 (3): 1015-1021
- **Hybrid-Space SENSE Reconstruction for Simultaneous Multi-Slice MRI** *IEEE TRANSACTIONS ON MEDICAL IMAGING*
Zhu, K., Dougherty, R. F., Wu, H., Middione, M. J., Takahashi, A. M., Zhang, T., Pauly, J. M., Kerr, A. B.
2016; 35 (8): 1824-1836

- **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
- **Comprehensive motion-compensated highly accelerated 4D flow MRI with ferumoxytol enhancement for pediatric congenital heart disease.** *Journal of magnetic resonance imaging*
Cheng, J. Y., Hanneman, K., Zhang, T., Alley, M. T., Lai, P., Tamir, J. I., Uecker, M., Pauly, J. M., Lustig, M., Vasanawala, S. S.
2016; 43 (6): 1355-1368
- **Resolving phase ambiguity in dual-echo dixon imaging using a projected power method.** *Magnetic resonance in medicine*
Zhang, T., Chen, Y., Bao, S., Alley, M. T., Pauly, J. M., Hargreaves, B. A., Vasanawala, S. S.
2016
- **Fat-suppressed alternating-SSFP for whole-brain fMRI using breath-hold and visual stimulus paradigms.** *Magnetic resonance in medicine*
Jou, T., Patterson, S., Pauly, J. M., Bowen, C. V.
2016; 75 (5): 1978-1988
- **Improved cortical bone specificity in UTE MR Imaging.** *Magnetic resonance in medicine*
Johnson, E. M., Vyas, U., Ghanouni, P., Pauly, K. B., Pauly, J. M.
2016
- **Development and testing of hyperpolarized (13)C MR calibrationless parallel imaging.** *Journal of magnetic resonance*
Feng, Y., Gordon, J. W., Shin, P. J., Von Morze, C., Lustig, M., Larson, P. E., Ohliger, M. A., Carvajal, L., Tropp, J., Pauly, J. M., Vigneron, D. B.
2016; 262: 1-7
- **Multiband RF pulses with improved performance via convex optimization** *JOURNAL OF MAGNETIC RESONANCE*
Shang, H., Larson, P. E., Kerr, A., Reed, G., Sukumar, S., Elkhalel, A., Gordon, J. W., Ohliger, M. A., Pauly, J. M., Lustig, M., Vigneron, D. B.
2016; 262: 81-90
- **Automated, Depth-Resolved Estimation of the Attenuation Coefficient From Optical Coherence Tomography Data** *IEEE TRANSACTIONS ON MEDICAL IMAGING*
Smith, G. T., Dwork, N., O'Connor, D., Sikora, U., Lurie, K. L., Pauly, J. M., Ellerbee, A. K.
2015; 34 (12): 2592-2602
- **Controlling radiofrequency-induced currents in guidewires using parallel transmit.** *Magnetic resonance in medicine*
Etezadi-Amoli, M., Stang, P., Kerr, A., Pauly, J., Scott, G.
2015; 74 (6): 1790-802
- **Controlling Radiofrequency-Induced Currents in Guidewires Using Parallel Transmit** *MAGNETIC RESONANCE IN MEDICINE*
Etezadi-Amoli, M., Stang, P., Kerr, A., Pauly, J., Scott, G.
2015; 74 (6): 1790-1802
- **Clinical performance of a free-breathing spatiotemporally accelerated 3-D time-resolved contrast-enhanced pediatric abdominal MR angiography.** *Pediatric radiology*
Zhang, T., Yousaf, U., Hsiao, A., Cheng, J. Y., Alley, M. T., Lustig, M., Pauly, J. M., Vasanawala, S. S.
2015; 45 (11): 1635-1643
- **Chemical Shift Separation with Controlled Aliasing for Hyperpolarized C-13 Metabolic Imaging** *MAGNETIC RESONANCE IN MEDICINE*
Shin, P. J., Larson, P. E., Uecker, M., Reed, G. D., Kerr, A. B., Tropp, J., Ohliger, M. A., Nelson, S. J., Pauly, J. M., Lustig, M., Vigneron, D. B.
2015; 74 (4): 978-989
- **Free-breathing pediatric MRI with nonrigid motion correction and acceleration** *JOURNAL OF MAGNETIC RESONANCE IMAGING*
Cheng, J. Y., Zhang, T., Ruangwattanapaisam, N., Alley, M. T., Uecker, M., Pauly, J. M., Lustig, M., Vasanawala, S. S.
2015; 42 (2): 407-420
- **Free-breathing pediatric MRI with nonrigid motion correction and acceleration.** *Journal of magnetic resonance imaging : JMRI*
Cheng, J. Y., Zhang, T., Ruangwattanapaisam, N., Alley, M. T., Uecker, M., Pauly, J. M., Lustig, M., Vasanawala, S. S.
2015; 42 (2): 407-20
- **T1 rho Dispersion in Articular Cartilage: Relationship to Material Properties and Macromolecular Content** *CARTILAGE*

- Keenan, K. E., Besier, T. F., Pauly, J. M., Smith, R. L., Delp, S. L., Beaupre, G. S., Gold, G. E.
2015; 6 (2): 113-122
- **Offline Impedance Measurements for Detection and Mitigation of Dangerous Implant Interactions: An RF Safety Prescreen** *MAGNETIC RESONANCE IN MEDICINE*
Ellenor, C. W., Stang, P. P., Etezadi-Amoli, M., Pauly, J. M., Scott, G. C.
2015; 73 (3): 1328-1339
 - **Interventional Device Visualization with Toroidal Transceiver and Optically Coupled Current Sensor for Radiofrequency Safety Monitoring** *MAGNETIC RESONANCE IN MEDICINE*
Etezadi-Amoli, M., Stang, P., Kerr, A., Pauly, J., Scott, G.
2015; 73 (3): 1315-1327
 - **Fast pediatric 3D free-breathing abdominal dynamic contrast enhanced MRI with high spatiotemporal resolution.** *Journal of magnetic resonance imaging*
Zhang, T., Cheng, J. Y., Potnick, A. G., Barth, R. A., Alley, M. T., Uecker, M., Lustig, M., Pauly, J. M., Vasanawala, S. S.
2015; 41 (2): 460-473
 - **Accelerating Parameter Mapping with a Locally Low Rank Constraint** *MAGNETIC RESONANCE IN MEDICINE*
Zhang, T., Pauly, J. M., Levesque, I. R.
2015; 73 (2): 655-661
 - **Calibrationless Parallel Imaging Reconstruction Based on Structured Low-Rank Matrix Completion** *MAGNETIC RESONANCE IN MEDICINE*
Shin, P. J., Larson, P. E., Ohliger, M. A., Elad, M., Pauly, J. M., Vigneron, D. B., Lustig, M.
2014; 72 (4): 959-970
 - **Clinical performance of contrast enhanced abdominal pediatric MRI with fast combined parallel imaging compressed sensing reconstruction.** *Journal of magnetic resonance imaging : JMIR*
Zhang, T., Chowdhury, S., Lustig, M., Barth, R. A., Alley, M. T., Grafendorfer, T., Calderon, P. D., Robb, F. J., Pauly, J. M., Vasanawala, S. S.
2014; 40 (1): 13-25
 - **Near-contiguous spin echo imaging using matched-phase RF and its application in velocity-selective arterial spin labeling.** *Magnetic resonance in medicine*
Zun, Z., Hargreaves, B. A., Pauly, J., Zaharchuk, G.
2014; 71 (6): 2043-2050
 - **Homogenous Fat Suppression for Bilateral Breast Imaging Using Independent Shims** *MAGNETIC RESONANCE IN MEDICINE*
Han, M., Cunningham, C. H., Pauly, J. M., Daniel, B. L., Hargreaves, B. A.
2014; 71 (4): 1511-1517
 - **ESPIRiT-An Eigenvalue Approach to Autocalibrating Parallel MRI: Where SENSE Meets GRAPPA** *MAGNETIC RESONANCE IN MEDICINE*
Uecker, M., Lai, P., Murphy, M. J., Virtue, P., Elad, M., Pauly, J. M., Vasanawala, S. S., Lustig, M.
2014; 71 (3): 990-1001
 - **Improved Slice-Selective Adiabatic Excitation** *MAGNETIC RESONANCE IN MEDICINE*
Balchandani, P., Glover, G., Pauly, J., Spielman, D.
2014; 71 (1): 75-82
 - **Quantitative Measurement of Cancer Metabolism Using Stimulated Echo Hyperpolarized Carbon-13 MRS** *MAGNETIC RESONANCE IN MEDICINE*
Swisher, C. L., Larson, P. E., Kruttwig, K., Kerr, A. B., Hu, S., Bok, R. A., Goga, A., Pauly, J. M., Nelson, S. J., Kurhanewicz, J., Vigneron, D. B.
2014; 71 (1): 1-11
 - **Optimal variable flip angle schemes for dynamic acquisition of exchanging hyperpolarized substrates** *JOURNAL OF MAGNETIC RESONANCE*
Xing, Y., Reed, G. D., Pauly, J. M., Kerr, A. B., Larson, P. E.
2013; 234: 75-81
 - **Perfusion and diffusion sensitive C-13 stimulated-echo MRSI for metabolic imaging of cancer** *MAGNETIC RESONANCE IMAGING*
Larson, P. E., Hurd, R. E., Kerr, A. B., Pauly, J. M., Bok, R. A., Kurhanewicz, J., Vigneron, D. B.
2013; 31 (5): 635-642

- **Optimization of Transcutaneous Energy Transmission Systems Suitable for Left Ventricular Assist Devices** *JOURNAL OF MEDICAL DEVICES-TRANSACTIONS OF THE ASME*
Byron, K., Bluvstein, V., Lucke, L., Pauly, J.
2013; 7 (2)
- **Coil compression for accelerated imaging with Cartesian sampling** *MAGNETIC RESONANCE IN MEDICINE*
Zhang, T., Pauly, J. M., Vasanawala, S. S., Lustig, M.
2013; 69 (2): 571-582
- **A rapid method for direct detection of metabolic conversion and magnetization exchange with application to hyperpolarized substrates** *JOURNAL OF MAGNETIC RESONANCE*
Larson, P. E., Kerr, A. B., Swisher, C. L., Pauly, J. M., Vigneron, D. B.
2012; 225: 71-80
- **Nonrigid motion correction in 3D using autofocusing with localized linear translations** *MAGNETIC RESONANCE IN MEDICINE*
Cheng, J. Y., Alley, M. T., Cunningham, C. H., Vasanawala, S. S., Pauly, J. M., Lustig, M.
2012; 68 (6): 1785-1797
- **Reducing artifacts in one-dimensional Fourier velocity encoding for fast and pulsatile flow** *MAGNETIC RESONANCE IN MEDICINE*
Lee, D., Santos, J. M., Hu, B. S., Pauly, J. M., Kerr, A. B.
2012; 68 (6): 1876-1885
- **Self-Refocused Adiabatic Pulse for Spin Echo Imaging at 7 T** *MAGNETIC RESONANCE IN MEDICINE*
Balchandani, P., Khalighi, M. M., Glover, G., Pauly, J., Spielman, D.
2012; 67 (4): 1077-1085
- **RF Field Visualization of RF Ablation at the Larmor Frequency** *IEEE TRANSACTIONS ON MEDICAL IMAGING*
Shultz, K., Stang, P., Kerr, A., Pauly, J., Scott, G.
2012; 31 (4): 938-947
- **A method for simultaneous echo planar imaging of hyperpolarized C-13 pyruvate and C-13 lactate** *JOURNAL OF MAGNETIC RESONANCE*
Reed, G. D., Larson, P. E., Von Morze, C., Bok, R., Lustig, M., Kerr, A. B., Pauly, J. M., Kurhanewicz, J., Vigneron, D. B.
2012; 217: 41-47
- **Analysis of the BOLD characteristics in pass-band bSSFP fMRI** *INTERNATIONAL JOURNAL OF IMAGING SYSTEMS AND TECHNOLOGY*
Kim, T. S., Lee, J., Lee, J. H., Glover, G. H., Pauly, J. M.
2012; 22 (1): 23-32
- **Analysis of the BOLD Characteristics in Pass-Band bSSFP fMRI.** *International journal of imaging systems and technology*
Kim, T. S., Lee, J., Lee, J. H., Glover, G. H., Pauly, J. M.
2012; 22 (1): 23-32
- **Medusa: A Scalable MR Console Using USB** *IEEE TRANSACTIONS ON MEDICAL IMAGING*
Stang, P. P., Conolly, S. M., Santos, J. M., Pauly, J. M., Scott, G. C.
2012; 31 (2): 370-379
- **Generating Super Stimulated-Echoes in MRI and Their Application to Hyperpolarized C-13 Diffusion Metabolic Imaging** *IEEE TRANSACTIONS ON MEDICAL IMAGING*
Larson, P. E., Kerr, A. B., Reed, G. D., Hurd, R. E., Kurhanewicz, J., Pauly, J. M., Vigneron, D. B.
2012; 31 (2): 265-275
- **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
- **Response to Comments on "Ensuring Safety of Implanted Devices Under MRI Using Reversed RF Polarization"** *MAGNETIC RESONANCE IN MEDICINE*

- Overall, W. R., Pauly, J. M., Stang, P. P., Scott, G. C.
2011; 66 (6): 1517-1517
- **Cross-relaxation Imaging of Human Articular Cartilage** *MAGNETIC RESONANCE IN MEDICINE*
Stikov, N., Keenan, K. E., Pauly, J. M., Smith, R. L., Dougherty, R. F., Gold, G. E.
2011; 66 (3): 725-734
 - **Metal-Induced Artifacts in MRI** *AMERICAN JOURNAL OF ROENTGENOLOGY*
Hargreaves, B. A., Worters, P. W., Pauly, K. B., Pauly, J. M., Koch, K. M., Gold, G. E.
2011; 197 (3): 547-555
 - **Fast Concomitant Gradient Field and Field Inhomogeneity Correction for Spiral Cardiac Imaging** *MAGNETIC RESONANCE IN MEDICINE*
Cheng, J. Y., Santos, J. M., Pauly, J. M.
2011; 66 (2): 390-401
 - **Slice Encoding for Metal Artifact Correction With Noise Reduction** *MAGNETIC RESONANCE IN MEDICINE*
Lu, W., Pauly, K. B., Gold, G. E., Pauly, J. M., Hargreaves, B. A.
2011; 65 (5): 1352-1357
 - **Fast Dynamic 3D MR Spectroscopic Imaging With Compressed Sensing and Multiband Excitation Pulses for Hyperpolarized C-13 Studies** *MAGNETIC RESONANCE IN MEDICINE*
Larson, P. E., Hu, S., Lustig, M., Kerr, A. B., Nelson, S. J., Kurhanewicz, J., Pauly, J. M., Vigneron, D. B.
2011; 65 (3): 610-619
 - **Frequency-Offset Cartesian Feedback for MRI Power Amplifier Linearization** *IEEE TRANSACTIONS ON MEDICAL IMAGING*
Zanchi, M. G., Stang, P., Kerr, A., Pauly, J. M., Scott, G. C.
2011; 30 (2): 512-522
 - **Prediction of glycosaminoglycan content in human cartilage by age, T1 rho and T2 MRI** *OSTEOARTHRITIS AND CARTILAGE*
Keenan, K. E., Besier, T. F., Pauly, J. M., Han, E., Rosenberg, J., Smith, R. L., Delp, S. L., Beaupre, G. S., Gold, G. E.
2011; 19 (2): 171-179
 - **Bound pool fractions complement diffusion measures to describe white matter micro and macrostructure** *NEUROIMAGE*
Stikov, N., Perry, L. M., Mezer, A., Rykhlevskaia, E., Wandell, B. A., Pauly, J. M., Dougherty, R. F.
2011; 54 (2): 1112-1121
 - **PRACTICAL PARALLEL IMAGING COMPRESSED SENSING MRI: SUMMARY OF TWO YEARS OF EXPERIENCE IN ACCELERATING BODY MRI OF PEDIATRIC PATIENTS.** *8th IEEE International Symposium on Biomedical Imaging (ISBI) - From Nano to Macro*
Vasanawala, S. S., MURPHY, M. J., Alley, M. T., Lai, P., Keutzer, K., Pauly, J. M., Lustig, M.
IEEE.2011: 1039-1043
 - **Compressed Sensing for Chemical Shift-Based Water-Fat Separation** *MAGNETIC RESONANCE IN MEDICINE*
Doneva, M., Boemert, P., Eggers, H., Mertins, A., Pauly, J., Lustig, M.
2010; 64 (6): 1749-1759
 - **Minimum Envelope Roughness Pulse Design for Reduced Amplifier Distortion in Parallel Excitation** *MAGNETIC RESONANCE IN MEDICINE*
Grissom, W. A., Kerr, A. B., Stang, P., Scott, G. C., Pauly, J. M.
2010; 64 (5): 1433-1440
 - **Minimum envelope roughness pulse design for reduced amplifier distortion in parallel excitation.** *Magnetic resonance in medicine*
Grissom, W. A., Kerr, A. B., Stang, P., Scott, G. C., Pauly, J. M.
2010; 64 (5): 1432-1439
 - **Reweighted I(1) Referenceless PRF Shift Thermometry** *MAGNETIC RESONANCE IN MEDICINE*
Grissom, W. A., Lustig, M., Holbrook, A. B., Rieke, V., Pauly, J. M., Butts-Pauly, K.
2010; 64 (4): 1068-1077
 - **Designing Adiabatic Radio Frequency Pulses Using the Shinnar-Le Roux Algorithm** *MAGNETIC RESONANCE IN MEDICINE*
Balchandani, P., Pauly, J., Spielman, D.
2010; 64 (3): 843-851

- **Ensuring Safety of Implanted Devices Under MRI Using Reversed RF Polarization** *MAGNETIC RESONANCE IN MEDICINE*
Overall, W. R., Pauly, J. M., Stang, P. P., Scott, G. C.
2010; 64 (3): 823-833
- **Improved Pediatric MR Imaging with Compressed Sensing** *RADIOLOGY*
Vasanawala, S. S., Alley, M. T., Hargreaves, B. A., Barth, R. A., Pauly, J. M., Lustig, M.
2010; 256 (2): 607-616
- **SPIRiT: Iterative Self-consistent Parallel Imaging Reconstruction From Arbitrary k-Space** *MAGNETIC RESONANCE IN MEDICINE*
Lustig, M., Pauly, J. M.
2010; 64 (2): 457-471
- **A Technique for Rapid Single-Echo Spin-Echo T-2 Mapping** *MAGNETIC RESONANCE IN MEDICINE*
Sussman, M. S., Vidarsson, L., Pauly, J. M., Cheng, H. M.
2010; 64 (2): 536-545
- **Quantitative Tissue Characterization of Infarct Core and Border Zone in Patients With Ischemic Cardiomyopathy by Magnetic Resonance Is Associated With Future Cardiovascular Events** *JOURNAL OF THE AMERICAN COLLEGE OF CARDIOLOGY*
Heidary, S., Patel, H., Chung, J., Yokota, H., Gupta, S. N., Bennett, M. V., Katikireddy, C., Nguyen, P., Pauly, J. M., Terashima, M., McConnell, M. V., Yang, P. C.
2010; 55 (24): 2762-2768
- **Frequency-Offset Cartesian Feedback Based on Polyphase Difference Amplifiers** *IEEE TRANSACTIONS ON MICROWAVE THEORY AND TECHNIQUES*
Zanchi, M. G., Pauly, J. M., Scott, G. C.
2010; 58 (5): 1297-1308
- **Frequency-Offset Cartesian Feedback Based on Polyphase Difference Amplifiers.** *IEEE transactions on microwave theory and techniques*
Zanchi, M. G., Pauly, J. M., Scott, G. C.
2010; 58 (5): 1297-1308
- **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
- **Accelerated Slice Encoding for Metal Artifact Correction** *JOURNAL OF MAGNETIC RESONANCE IMAGING*
Hargreaves, B. A., Chen, W., Lu, W., Alley, M. T., Gold, G. E., Brau, A. C., Pauly, J. M., Pauly, K. B.
2010; 31 (4): 987-996
- **Investigation of Tumor Hyperpolarized [1-C-13]-Pyruvate Dynamics Using Time-Resolved Multiband RF Excitation Echo-Planar MRSI** *MAGNETIC RESONANCE IN MEDICINE*
Larson, P. E., Bok, R., Kerr, A. B., Lustig, M., Hu, S., Chen, A. P., Nelson, S. J., Pauly, J. M., Kurhanewicz, J., Vigneron, D. B.
2010; 63 (3): 582-591
- **3D Compressed Sensing for Highly Accelerated Hyperpolarized C-13 MRSI With In Vivo Applications to Transgenic Mouse Models of Cancer** *MAGNETIC RESONANCE IN MEDICINE*
Hu, S., Lustig, M., Balakrishnan, A., Larson, P. E., Bok, R., Kurhanewicz, J., Nelson, S. J., Goga, A., Pauly, J. M., Vigneron, D. B.
2010; 63 (2): 312-321
- **An Optically Coupled System for Quantitative Monitoring of MRI-Induced RF Currents Into Long Conductors** *IEEE TRANSACTIONS ON MEDICAL IMAGING*
Zanchi, M. G., Venook, R., Pauly, J. M., Scott, G. C.
2010; 29 (1): 169-178
- **A Practical Acceleration Algorithm for Real-Time Imaging** *IEEE TRANSACTIONS ON MEDICAL IMAGING*
Suembuel, U., Santos, J. M., Pauly, J. M.
2009; 28 (12): 2042-2051
- **Combining Complex Signal Change in Functional MRI** *MAGNETIC RESONANCE IN MEDICINE*
Lee, J., Shahram, M., Pauly, J. M.

2009; 62 (5): 1358-1360

- **Maximum Linear-Phase Spectral-Spatial Radiofrequency Pulses for Fat-Suppressed Proton Resonance Frequency-Shift MR Thermometry** *MAGNETIC RESONANCE IN MEDICINE*
Grissom, W. A., Kerr, A. B., Holbrook, A. B., Pauly, J. M., Butts-Pauly, K.
2009; 62 (5): 1242-1250
- **Improved Time Series Reconstruction for Dynamic Magnetic Resonance Imaging** *IEEE TRANSACTIONS ON MEDICAL IMAGING*
Suembuel, U., Santos, J. M., Pauly, J. M.
2009; 28 (7): 1093-1104
- **SEMAC: Slice Encoding for Metal Artifact Correction in MRI** *16th Annual Meeting of the International-Society-of-Magnetic-Resonance-in-Medicine*
Lu, W., Pauly, K. B., Gold, G. E., Pauly, J. M., Hargreaves, B. A.
WILEY-BLACKWELL.2009: 66-76
- **Self-Refocused Spatial-Spectral Pulse for Positive Contrast Imaging of Cells Labeled with SPIO Nanoparticles** *MAGNETIC RESONANCE IN MEDICINE*
Balchandani, P., Yamada, M., Pauly, J., Yang, P., Spielman, D.
2009; 62 (1): 183-192
- **Time-Optimal Design for Multidimensional and Parallel Transmit Variable-Rate Selective Excitation** *MAGNETIC RESONANCE IN MEDICINE*
Lee, D., Lustig, M., Grissom, W. A., Pauly, J. M.
2009; 61 (6): 1471-1479
- **Improved Shim Method Based on the Minimization of the Maximum Off-Resonance Frequency for Balanced Steady-State Free Precession (bSSFP)** *MAGNETIC RESONANCE IN MEDICINE*
Lee, J., Lustig, M., Kim, D., Pauly, J. M.
2009; 61 (6): 1500-1506
- **Double Half RF Pulses for Reduced Sensitivity to Eddy Currents in UTE Imaging** *MAGNETIC RESONANCE IN MEDICINE*
Josan, S., Pauly, J. M., Daniel, B. L., Pauly, K. B.
2009; 61 (5): 1083-1089
- **Improved Half RF Slice Selectivity in the Presence of Eddy Currents with Out-of-Slice Saturation** *MAGNETIC RESONANCE IN MEDICINE*
Josan, S., Kaye, E., Pauly, J. M., Daniel, B. L., Pauly, K. B.
2009; 61 (5): 1090-1095
- **Design of Cosine Modulated Very Selective Suppression Pulses for MR Spectroscopic Imaging at 3T** *MAGNETIC RESONANCE IN MEDICINE*
Osorio, J. A., Xu, D., Cunningham, C. H., Chen, A., Kerr, A. B., Pauly, J. M., Vigneron, D. B., Nelson, S. J.
2009; 61 (3): 533-540
- **REGULARIZED REFERENCELESS TEMPERATURE ESTIMATION IN PRF-SHIFT MR THERMOMETRY** *IEEE International Symposium on Biomedical Imaging - From Nano to Macro*
Grissom, W., Pauly, K. B., Lustig, M., Rieke, V., Pauly, J., McDannold, N.
IEEE.2009: 1235-1238
- **Phased array 3D MR spectroscopic imaging of the brain at 7 T** *MAGNETIC RESONANCE IMAGING*
Xu, D., Cunningham, C. H., Chen, A. P., Li, Y., Kelley, D. A., Mukherjee, P., Pauly, J. M., Nelson, S. J., Vigneron, D. B.
2008; 26 (9): 1201-1206
- **Multiband excitation pulses for hyperpolarized C-13 dynamic chemical-shift imaging** *JOURNAL OF MAGNETIC RESONANCE*
Larson, P. E., Kerr, A. B., Chen, A. P., Lustig, M. S., Zierhut, M. L., Hu, S., Cunningham, C. H., Pauly, J. M., Kurhanewicz, J., Vigneron, D. B.
2008; 194 (1): 121-127
- **Pulse sequence for dynamic volumetric imaging of hyperpolarized metabolic products** *JOURNAL OF MAGNETIC RESONANCE*
Cunningham, C. H., Chen, A. P., Lustig, M., Hargreaves, B. A., Lupo, J., Xu, D., Kurhanewicz, J., Hurd, R. E., Pauly, J. M., Nelson, S. J., Vigneron, D. B.
2008; 193 (1): 139-146

- **Improved slice selection for R2* mapping during cryoablation with eddy current compensation** *JOURNAL OF MAGNETIC RESONANCE IMAGING*
Lu, A., Daniel, B. L., Pauly, J. M., Pauly, K. B.
2008; 28 (1): 190-198
- **A fast method for designing time-optimal gradient waveforms for arbitrary k-space trajectories** *IEEE TRANSACTIONS ON MEDICAL IMAGING*
Lustig, M., Kim, S., Pauly, J. A.
2008; 27 (6): 866-873
- **Compressed sensing for resolution enhancement of hyperpolarized C-13 flyback 3D-MRSI** *JOURNAL OF MAGNETIC RESONANCE*
Hu, S., Lustig, M., Chen, A. P., Crane, J., Kerr, A., Kelley, D. A., Hurd, R., Kurhanewicz, J., Nelson, S. J., Pauly, J. M., Vigneron, D. B.
2008; 192 (2): 258-264
- **Interleaved narrow-band PRESS sequence with adiabatic spatial-spectral refocusing pulses for H-1 MRSI at 7T** *MAGNETIC RESONANCE IN MEDICINE*
Balchandani, P., Pauly, J., Spielman, D.
2008; 59 (5): 973-979
- **Slice-selective tunable-flip adiabatic low peak-power excitation pulse** *MAGNETIC RESONANCE IN MEDICINE*
Balchandani, P., Pauly, J., Spielman, D.
2008; 59 (5): 1072-1078
- **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
- **Quantitative characterization of myocardial infarction by cardiovascular magnetic resonance predicts future cardiovascular events in patients with ischemic cardiomyopathy** *JOURNAL OF CARDIOVASCULAR MAGNETIC RESONANCE*
Yokota, H., Heidary, S., Katikireddy, C. K., Nguyen, P., Pauly, J. M., McConnell, M. V., Yang, P. C.
2008; 10
- **Reduction of truncation artifacts in rapid 3D articular cartilage imaging** *JOURNAL OF MAGNETIC RESONANCE IMAGING*
Rakow-Penner, R., Gold, G., Daniel, B., Stevens, K., Rosenberg, J., Mazin, S.
2008; 27 (4): 860-865
- **Compressed sensing MRI** *IEEE SIGNAL PROCESSING MAGAZINE*
Lustig, M., Donoho, D. L., Santos, J. M., Pauly, J. M.
2008; 25 (2): 72-82
- **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
- **Noise performance of a precision pulsed electromagnet power supply for magnetic resonance imaging** *IEEE TRANSACTIONS ON MEDICAL IMAGING*
Matter, N. I., Chronik, B., Pauly, J. M., Macovski, A., Conolly, S. M., Scott, G. C.
2008; 27 (1): 75-86
- **Sparse MRI: The application of compressed sensing for rapid MR imaging** *MAGNETIC RESONANCE IN MEDICINE*
Lustig, M., Donoho, D., Pauly, J. M.
2007; 58 (6): 1182-1195
- **Hyperpolarized c-13 spectroscopic imaging of the TRAMP mouse at 3T - Initial experience** *MAGNETIC RESONANCE IN MEDICINE*
Chen, A. P., Albers, M. J., Cunningham, C. H., Kohler, S. J., Yen, Y., Hurd, R. E., Tropp, J., Bok, R., Pauly, J. M., Nelson, S. J., Kurhanewicz, J., Vigneron, D. B.
2007; 58 (6): 1099-1106
- **Using adiabatic inversion pulses for long-T-2 suppression in ultrashort echo time (UTE) imaging** *MAGNETIC RESONANCE IN MEDICINE*
Larson, P. E., Conolly, S. M., Pauly, J. M., Nishimura, D. G.

2007; 58 (5): 952-961

- **Real-time MRI of peripheral chronic total occlusion interventions: Visualization of devices ex vivo in animals and lesions in vivo pre/post intervention in patients** *19th Annual Transcatheter Cardiovascular Therapeutics Symposium*
Suzuki, Y., Overall, W. R., Santos, J. M., Terashima, M., Ikeno, F., Yeung, A. C., Pauly, J. M., McConnell, M. V., Williams, S. B.
EXCERPTA MEDICA INC-ELSEVIER SCIENCE INC.2007: 224L–224L
- **Double spin-echo sequence for rapid spectroscopic imaging of hyperpolarized C-13** *JOURNAL OF MAGNETIC RESONANCE*
Cunningham, C. H., Chen, A. P., Albers, M. J., Kurhanewicz, J., Hurd, R. E., Yen, Y., Pauly, J. M., Nelson, S. J., Vigneron, D. B.
2007; 187 (2): 357-362
- **T-2-selective magnetization preparation pulses** *IEEE TRANSACTIONS ON MEDICAL IMAGING*
Vidarsson, L., Cunningham, C., Gold, G. E., Pauly, J. A.
2007; 26 (7): 981-989
- **High-speed 3T MR spectroscopic imaging of prostate with flyback echo-planar encoding** *JOURNAL OF MAGNETIC RESONANCE IMAGING*
Chen, A. P., Cunningham, C. H., Ozturk-Isik, E., Xu, D., Hurd, R. E., Kelley, D. A., Pauly, J. M., Kurhanewicz, J., Nelson, S. J., Vigneron, D. B.
2007; 25 (6): 1288-1292
- **Complex data analysis in high-resolution SSFP fMRI** *MAGNETIC RESONANCE IN MEDICINE*
Lee, J., Shahram, M., Schwartzman, A., Pauly, J. M.
2007; 57 (5): 905-917
- **Independent phase modulation for efficient dual-band 3D imaging** *MAGNETIC RESONANCE IN MEDICINE*
Hargreaves, B. A., Cunningham, C. H., Pauly, J. M., Daniel, B. L.
2007; 57 (4): 798-802
- **Implementation of the Derivative Back Projection - Finite Hilbert Inverse algorithm in projection reconstruction MRI** *IEEE Nuclear Science Symposium/Medical Imaging Conference*
Barral, J. K., Pelc, N. J., Pauly, J. A., Nishimura, D. G.
IEEE.2007: 4083–4089
- **Optimized Design of Single-sided Quadratic Phase Outer Volume Suppression Pulses for Magnetic Resonance Imaging** *11th Mediterranean Conference on Medical and Biological Engineering and Computing (MEDICON 2007)*
Stikov, N., Mutapcic, A., Pauly, J. M.
SPRINGER-VERLAG BERLIN.2007: 423–25
- **High-resolution 3D MR spectroscopic imaging of the prostate at 3 T with the MLEV-PRESS sequence** *MAGNETIC RESONANCE IMAGING*
Chen, A. P., Cunningham, C. H., Kurhanewicz, J., Xu, D., Hurd, R. E., Pauly, J. M., Carvajal, L., Karpodinis, K., Vigneron, D. B.
2006; 24 (7): 825-832
- **Designing long-T-2 suppression pulses for ultrashort echo time imaging** *MAGNETIC RESONANCE IN MEDICINE*
Larson, P. E., Gurney, P. T., Nayak, K., Gold, G. E., Pauly, J. M., Nishimura, D. G.
2006; 56 (1): 94-103
- **Saturated double-angle method for rapid B-1 plus mapping** *MAGNETIC RESONANCE IN MEDICINE*
Cunningham, C. H., Pauly, J. M., Nayak, K. S.
2006; 55 (6): 1326-1333
- **Linear combination filtering for T-2-selective imaging of the knee** *MAGNETIC RESONANCE IN MEDICINE*
Vidarsson, L., Gold, G. E., Hargreaves, B., Pauly, J. M.
2006; 55 (5): 1191-1196
- **Respiration-induced B-0 field fluctuation compensation in balanced SSFP: Real-time approach for transition-band SSFP fMRI** *MAGNETIC RESONANCE IN MEDICINE*
Lee, J., Santos, J. M., Conolly, S. M., Miller, K. L., Hargreaves, B. A., Pauly, J. M.
2006; 55 (5): 1197-1201
- **Examination of white matter in cocaine dependence** *61st Annual Convention of the Society-of-Biological-Psychiatry*
Lim, K. O., Mueller, B. A., Specker, S. M., Pauly, J. M., Vidarsson, L., Wozniak, J. R.
ELSEVIER SCIENCE INC.2006: 111S–111S

- **Single breath-hold whole-heart MRA using variable-density spirals at 3T** *MAGNETIC RESONANCE IN MEDICINE*
Santos, J. M., Cunningham, C. H., Lustig, M., Hargreaves, B. A., Hu, B. S., Nishimura, D. G., Pauly, J. M.
2006; 55 (2): 371-379
- **High-resolution FMRI at 1.5T using balanced SSFP** *MAGNETIC RESONANCE IN MEDICINE*
Miller, K. L., Smith, S. M., Jezzard, P., Pauly, J. M.
2006; 55 (1): 161-170
- **Peri-infarct ischemia determined by cardiovascular magnetic resonance evaluation of myocardial viability and stress perfusion predicts future cardiovascular events in patients with severe ischemic cardiomyopathy** *JOURNAL OF CARDIOVASCULAR MAGNETIC RESONANCE*
Tsukiji, M., Nguyen, P., Narayan, G., Hellinger, J., Chan, F., Herfkens, R., Pauly, J. M., McConnell, M. V., Yang, P. C.
2006; 8 (6): 773-779
- **Real-time color-flow CMR in adults with congenital heart disease** *JOURNAL OF CARDIOVASCULAR MAGNETIC RESONANCE*
de la Pena, E., Nguyen, P. K., Nayak, K. S., Yang, P. C., Rosenthal, D. N., Hu, B. S., Pauly, J. M., McConnell, M. V.
2006; 8 (6): 809-815
- **Control over brain activation and pain learned by using real-time functional MRI** *PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF AMERICA*
deCharms, R. C., Maeda, F., Glover, G. H., Ludlow, D., Pauly, J. M., Soneji, D., Gabrieli, J. D., Mackey, S. C.
2005; 102 (51): 18626-18631
- **High-resolution real-time spiral MRI for guiding vascular interventions in a rabbit model at 1.5 T.** *Journal of magnetic resonance imaging : JMIR*
Terashima, M., Hyon, M., de la Pena-Almaguer, E., Yang, P. C., Hu, B. S., Nayak, K. S., Pauly, J. M., McConnell, M. V.
2005; 22 (5): 687-690
- **High-resolution real-time spiral MRI for guiding vascular interventions in a rabbit model at 1.5T** *JOURNAL OF MAGNETIC RESONANCE IMAGING*
Terashima, M., Hyon, M., De La Pena-Almaguer, E., Yang, P. C., Hu, B. S., Nayak, K. S., Pauly, J. M., McConnell, M. V.
2005; 22 (5): 687-690
- **Design of flyback echo-planar readout gradients for magnetic resonance spectroscopic imaging** *MAGNETIC RESONANCE IN MEDICINE*
Cunningham, C. H., Vigneron, D. B., CHEN, A. P., Xu, D., Nelson, S. J., Hurd, R. E., Kelley, D. A., Pauly, J. M.
2005; 54 (5): 1286-1289
- **Broadband multicoil imaging using multiple demodulation hardware: A feasibility study** *MAGNETIC RESONANCE IN MEDICINE*
Lee, J. H., Scott, G. C., Pauly, J. M., Nishimura, D. G.
2005; 54 (3): 669-676
- **Variable-density one-shot Fourier velocity encoding** *MAGNETIC RESONANCE IN MEDICINE*
DiCarlo, J. C., Hargreaves, B. A., Nayak, K. S., Hu, B. S., Pauly, J. M., Nishimura, D. G.
2005; 54 (3): 645-655
- **Single-breathhold, four-dimensional, quantitative assessment of LV and RV function using triggered, real-time, steady-state free precession MRI in heart failure patients** *12th Annual Meeting of the ISMRM*
Narayan, G., Nayak, K., Pauly, J., Hu, B.
JOHN WILEY & SONS INC.2005: 59-66
- **Spiral balanced steady-state free precession cardiac imaging** *MAGNETIC RESONANCE IN MEDICINE*
Nayak, K. S., Hargreaves, B. A., Hu, B. S., Nishimura, D. G., Pauly, J. M., Meyer, C. H.
2005; 53 (6): 1468-1473
- **X-ray compatible radiofrequency coil for magnetic resonance imaging** *MAGNETIC RESONANCE IN MEDICINE*
Rieke, V., GANGULY, A., Daniel, B. L., Scott, G., Pauly, J. M., Fahrig, R., Pelc, N. J., Butts, K.
2005; 53 (6): 1409-1414
- **Rapid gridding reconstruction with a minimal oversampling ratio** *IEEE TRANSACTIONS ON MEDICAL IMAGING*
Beatty, P. J., Nishimura, D. G., Pauly, J. M.
2005; 24 (6): 799-808

- **Sequence design for magnetic resonance spectroscopic imaging of prostate cancer at 3T** *MAGNETIC RESONANCE IN MEDICINE*
Cunningham, C. H., Vigneron, D. B., Marjanska, M., CHEN, A. P., Xu, D., Hurd, R. E., Kurhanewicz, J., Garwood, M., Pauly, J. M.
2005; 53 (5): 1033-1039
- **POsitive contrast magnetic resonance imaging of cells labeled with magnetic nanoparticles** *MAGNETIC RESONANCE IN MEDICINE*
Cunningham, C. H., Arai, T., Yang, P. C., McConnell, M. V., Pauly, J. M., Conolly, S. M.
2005; 53 (5): 999-1005
- **Rapid musculoskeletal MRI with phase-sensitive steady-state free precession: Comparison with routine knee MRI** *AMERICAN JOURNAL OF ROENTGENOLOGY*
Vasanawala, S. S., Hargreaves, B. A., Pauly, J. M., Nishimura, D. G., Beaulieu, C. F., Gold, G. E.
2005; 184 (5): 1450-1455
- **Echo time optimization for linear combination myelin Imaging** *MAGNETIC RESONANCE IN MEDICINE*
Vidarsson, L., Conolly, S. M., Lim, K. O., Gold, G. E., Pauly, J. M.
2005; 53 (2): 398-407
- **Reduction of blurring in view angle tilting MRI** *MAGNETIC RESONANCE IN MEDICINE*
Butts, K., Pauly, J. M., Gold, G. E.
2005; 53 (2): 418-424
- **Design of symmetric-sweep spectral-spatial RF pulses for spectral editing** *MAGNETIC RESONANCE IN MEDICINE*
Cunningham, C. H., Vigneron, D. B., CHEN, A. P., Xu, D., Hurd, R. E., Sailasuta, N., Pauly, J. M.
2004; 52 (1): 147-153
- **Referenceless PRF shift thermometry** *MAGNETIC RESONANCE IN MEDICINE*
Rieke, V., Vigen, K. K., Sommer, G., Daniel, B. L., Pauly, J. M., Butts, K.
2004; 51 (6): 1223-1231
- **Analysis of multiple-acquisition SSFP** *MAGNETIC RESONANCE IN MEDICINE*
Bangerter, N. K., Hargreaves, B. A., Vasanawala, S. S., Pauly, J. M., Gold, G. E., Nishimura, D. G.
2004; 51 (5): 1038-1047
- **Real-time cardiac MRI at 3 tesla** *11th Annual Meeting of the International-Society-for-Magnetic-Resonance-in-Medicine*
Nayak, K. S., Cunningham, C. H., Santos, J. M., Pauly, J. M.
JOHN WILEY & SONS INC.2004: 655-60
- **Steady-state diffusion-weighted imaging of in vivo knee cartilage** *MAGNETIC RESONANCE IN MEDICINE*
Miller, K. L., Hargreaves, B. A., Gold, G. E., Pauly, J. M.
2004; 51 (2): 394-398
- **Dynamic real-time architecture in magnetic resonance coronary angiography-a prospective clinical trial** *JOURNAL OF CARDIOVASCULAR MAGNETIC RESONANCE*
Yang, P. C., Santos, J. M., Nguyen, P. K., Scott, G. C., Engvall, J., McConnell, M. V., Wright, G. A., Nishimura, D. G., Pauly, J. M., Hu, B. S.
2004; 6 (4): 885-894
- **Flexible real-time magnetic resonance imaging framework** *26th Annual International Conference of the IEEE-Engineering-in-Medicine-and-Biology-Society*
Santos, G. M., Wright, G. A., Pauly, J. M.
IEEE.2004: 1048-1051
- **Functional brain imaging with BOSSFMRI** *26th Annual International Conference of the IEEE-Engineering-in-Medicine-and-Biology-Society*
Miller, K. L., Hargreaves, B. A., Lee, J. H., Ress, D., deCharms, R. C., Pauly, J. M.
IEEE.2004: 5234-5237
- **Functional brain imaging with BOSS FMRI.** *Conference proceedings : ... Annual International Conference of the IEEE Engineering in Medicine and Biology Society. IEEE Engineering in Medicine and Biology Society. Conference*
Miller, K. L., Hargreaves, B. A., Lee, J., Ress, D., deCharms, R. C., Pauly, J. M.
2004; 7: 5234-5237

- **Flexible real-time magnetic resonance imaging framework.** *Conference proceedings : ... Annual International Conference of the IEEE Engineering in Medicine and Biology Society. IEEE Engineering in Medicine and Biology Society. Conference*
Santos, J. M., Wright, G. A., Pauly, J. M.
2004; 2: 1048-1051
- **Knee cartilage volume with fluctuating equilibrium MRI** *9th World Congress of the OsteoArthritis-Research-Society-International*
Gold, G. E., Hargreaves, B. A., Vasanawala, S. S., Webb, J., Shimakawa, A., Brittain, J. H., Pauly, J. M., Beaulieu, C. F.
W B SAUNDERS CO LTD.2004: S1-S1
- **Learned regulation of spatially localized brain activation using real-time fMRI** *NEUROIMAGE*
DeCharms, R. C., Christoff, K., Glover, G. H., Pauly, J. M., Whitfield, S., Gabrieli, J. D.
2004; 21 (1): 436-443
- **Spiral magnetic resonance coronary angiography - Direct comparison of 1.5 tesla vs. 3 tesla** *JOURNAL OF CARDIOVASCULAR MAGNETIC RESONANCE*
Yang, P. C., Nguyen, P., Shimakawa, A., Brittain, J., Pauly, J., Nishimura, D., Hu, B., McConnell, M.
2004; 6 (4): 877-884
- **Real-time imaging of skeletal muscle velocity** *9th Annual Meeting of the ISMRM*
Asakawa, D. S., Nayak, K. S., Blemker, S. S., Delp, S. L., Pauly, J. M., Nishimura, D. G., Gold, G. E.
JOHN WILEY & SONS INC.2003: 734-39
- **Triggered, navigated, multi-baseline method for proton resonance frequency temperature mapping with respiratory motion** *MAGNETIC RESONANCE IN MEDICINE*
Vigen, K. K., Daniel, B. L., Pauly, J. M., Butts, K.
2003; 50 (5): 1003-1010
- **Functional brain Imaging using a blood oxygenation sensitive steady state** *MAGNETIC RESONANCE IN MEDICINE*
Miller, K. L., Hargreaves, B. A., Lee, J., Ress, D., deCharms, R. C., Pauly, J. M.
2003; 50 (4): 675-683
- **Nonlinear phase correction for navigated diffusion imaging** *MAGNETIC RESONANCE IN MEDICINE*
Miller, K. L., Pauly, J. M.
2003; 50 (2): 343-353
- **Spiral magnetic resonance coronary angiography with rapid real-time localization** *JOURNAL OF THE AMERICAN COLLEGE OF CARDIOLOGY*
Yang, P. C., Meyer, C. H., Terashima, M., Kaji, S., McConnell, M. V., Macovski, A., Pauly, J. M., Nishimura, D. G., Hu, B. S.
2003; 41 (7): 1134-1141
- **Comparison of new sequences for high-resolution cartilage imaging** *MAGNETIC RESONANCE IN MEDICINE*
Hargreaves, B. A., Gold, G. E., Beaulieu, C. F., Vasanawala, S. S., Nishimura, D. G., Pauly, J. M.
2003; 49 (4): 700-709
- **Adaptive real-time architecture in magnetic resonance coronary angiography: Clinical study** *52nd Annual Scientific Session of the American-College-of-Cardiology*
Nguyen, P. K., Santos, J., Scott, G., Engvall, J., Wright, G., McConnell, M., Meyer, C., Nishimura, D., Pauly, J., Hu, B., Yang, P. C.
ELSEVIER SCIENCE INC.2003: 468A-469A
- **Adaptive real-time imaging in magnetic resonance coronary angiography** *Clinical Research 2003 Meeting*
Yang, P., Nguyen, P., Santos, J., Engvall, J., McConnell, M., Scott, G., Wright, G., Nishimura, D., Pauly, J., Hu, B.
B C DECKER INC.2003: S360-S360
- **MR imaging of knee cartilage with FEMR** *SKELETAL RADIOLOGY*
Vasawala, S. S., Pauly, J. M., Nishimura, D. G., Gold, G. E.
2002; 31 (10): 574-580
- **Short echo time MR spectroscopic imaging of the lung parenchyma** *JOURNAL OF MAGNETIC RESONANCE IMAGING*
Gold, G. E., Pauly, J. M., Leung, A. N., Block, W. F., Meyer, C. H., Sze, R., Macovski, A., Stark, P.
2002; 15 (6): 679-684

- **Rapid evaluation of right ventricular volume and mass without breath-holding using real-time interactive cardiac magnetic resonance imaging system**
Kaji, S., Yang, P. C., Kerr, A. B., Meyer, C. H., Pauly, J. M., Hu, B. S.
ELSEVIER SCIENCE INC.2002: 368A–369A
- **In vivo real-time intravascular MRI** *JOURNAL OF CARDIOVASCULAR MAGNETIC RESONANCE*
Rivas, P. A., Nayak, K. S., Scott, G. C., McConnell, M. V., Kerr, A. B., Nishimura, D. G., Pauly, J. M., Hu, B. S.
2002; 4 (2): 223-232
- **Dualband spectral-spatial RF pulses for prostate MR spectroscopic imaging** *MAGNETIC RESONANCE IN MEDICINE*
Schricker, A. A., Pauly, J. M., Kurhanewicz, J., Swanson, M. G., Vigneron, D. B.
2001; 46 (6): 1079-1087
- **Temperature mapping of frozen tissue using eddy current compensated half excitation RF pulses** *MAGNETIC RESONANCE IN MEDICINE*
Wansapura, J. P., Daniel, B. L., Pauly, J., Butts, K.
2001; 46 (5): 985-992
- **High-resolution real-time MRI for vascular interventions**
Terashima, M., De la pena-Almageur, E., Nayak, K. S., Yang, P. C., Pauly, J. M., Hu, B. S., McConnell, M. V.
LIPPINCOTT WILLIAMS & WILKINS.2001: 638–38
- **High-resolution real-time magnetic resonance imaging for vascular interventions.**
Terashima, M., De La Pena-Almaguer, E., Nayak, K., Pauly, J. M., Yang, P. C., Hu, B. S., McConnell, M. V.
EXCERPTA MEDICA INC.2001: 89G–89G
- **Real-time interactive coronary MRA** *MAGNETIC RESONANCE IN MEDICINE*
Nayak, K. S., Pauly, J. M., Yang, P. C., Hu, B. S., Meyer, C. H., Nishimura, D. G.
2001; 46 (3): 430-435
- **Rapid evaluation of left ventricular volume and mass without breath-holding using real-time interactive cardiac magnetic resonance imaging system** *JOURNAL OF THE AMERICAN COLLEGE OF CARDIOLOGY*
Kaji, S., Yang, P. C., Kerr, A. B., Tang, W. H., Meyer, C. H., Macovski, A., Pauly, J. M., Nishimura, D. G., Hu, B. S.
2001; 38 (2): 527-533
- **Characterization and reduction of the transient response in steady-state MR imaging** *MAGNETIC RESONANCE IN MEDICINE*
Hargreaves, B. A., Vasanawala, S. S., Pauly, J. M., Nishimura, D. G.
2001; 46 (1): 149-158
- **Real-time black-blood MRI using spatial presaturation** *7th Annual ISMRM Meeting*
Nayak, K. S., Rivas, P. A., Pauly, J. M., Scott, G. C., Kerr, A. B., Hu, B. S., Nishimura, D. G.
JOHN WILEY & SONS INC.2001: 807–12
- **Rapid ventricular assessment using real-time interactive multislice MRI** *MAGNETIC RESONANCE IN MEDICINE*
Nayak, K. S., Pauly, J. M., Nishimura, D. G., Hu, B. S.
2001; 45 (3): 371-375
- **Temperature quantitation and mapping of frozen tissue** *JOURNAL OF MAGNETIC RESONANCE IMAGING*
Butts, K., Sinclair, J., Daniel, B. L., Wansapura, J., Pauly, J. M.
2001; 13 (1): 99-104
- **Real-time interactive multislice MRI: Stress LV function and first pass perfusion**
Nayak, K. S., Hu, B. S., Pauly, J. M., Putz, E. J., Kerr, A. B., Nishimura, D. G.
LIPPINCOTT WILLIAMS & WILKINS.2000: 687–87
- **Real-time interactive coronary MR angiography**
Nayak, K. S., Pauly, J. M., Hu, B. S., Yang, P. C., Meyer, C. H., Kerr, A. B., Nishimura, D. G.
LIPPINCOTT WILLIAMS & WILKINS.2000: 398–98
- **Partial-FOV reconstruction in dynamic spiral imaging** *MAGNETIC RESONANCE IN MEDICINE*
Sedarat, H., Kerr, A. B., Pauly, J. M., Nishimura, D. G.

2000; 43 (3): 429-439

- **Complete evaluation of left ventricular volume and mass in less than 5 minutes with real-time interactive cardiac magnetic resonance imaging system**
Kaji, S., Yang, P. C., Kerr, A. B., Meyer, C. H., Pauly, J. M., Hu, B. S.
ELSEVIER SCIENCE INC.2000: 464A-464A
- **Real-time color flow MRI** *2nd Annual Meeting of the Society-for-Cardiovascular-Magnetic-Resonance*
Nayak, K. S., Pauly, J. M., Kerr, A. B., Hu, B. S., Nishimura, D. G.
JOHN WILEY & SONS INC.2000: 251-58
- **The real-time interactive 3-D-DVA for robust coronary MRA** *IEEE TRANSACTIONS ON MEDICAL IMAGING*
Sachs, T. S., Meyer, C. H., Pauly, J. M., Hu, B. S., Nishimura, D. G., Macovski, A.
2000; 19 (2): 73-79
- **Evaluation of valvular regurgitation: Real-time color flow magnetic resonance imaging compared to echo**
Rivas, P. A., Nayak, K. S., Kerr, A. B., McConnell, M. V., Yang, P. C., Pauly, J. M., Nishimura, D. G., Hu, B. S.
ELSEVIER SCIENCE INC.2000: 453A-454A
- **Linear combination steady-state free precession MRI** *MAGNETIC RESONANCE IN MEDICINE*
Vasanawala, S. S., Pauly, J. M., Nishimura, D. G.
2000; 43 (1): 82-90
- **Abstract: real-time interactive MRI for cardiac applications** *Computer aided surgery*
PAULY
2000; 5 (2): 133-?
- **A randomized clinical trial of risk factor modification in 535 healthy women during menopause**
Kuller, L. H., Simkin-Silverman, L. R., Milas, N. C., Berry, M., Wing, R. R.
LIPPINCOTT WILLIAMS & WILKINS.1999: 522-22
- **Real-time interactive cardiac magnetic resonance imaging system with color flow mapping: Assessment of regurgitation severity compared with ultrasound color doppler**
Rivas, P. A., Nayak, K. S., Kerr, A. B., Nishimura, D., Pauly, J. M., Hu, B. S.
LIPPINCOTT WILLIAMS & WILKINS.1999: 456-56
- **Real-time black-blood cardiac MRI**
Nayak, K. S., Pauly, J. M., Hu, B. S., Kerr, A. B., Nishimura, D. G.
LIPPINCOTT WILLIAMS & WILKINS.1999: 162-62
- **Fluctuating equilibrium MRI** *MAGNETIC RESONANCE IN MEDICINE*
Vasanawala, S. S., Pauly, J. M., Nishimura, D. G.
1999; 42 (5): 876-883
- **MR imaging of articular cartilage using driven equilibrium** *Scientific Meeting of the International-Society-for-Magnetic-Resonance-in-Medicine*
Hargreaves, B. A., Gold, G. E., Lang, P. K., Conolly, S. M., Pauly, J. M., Bergman, G., Vandevenne, J., Nishimura, D. G.
JOHN WILEY & SONS INC.1999: 695-703
- **Nonsubtractive spiral phase contrast velocity imaging** *MAGNETIC RESONANCE IN MEDICINE*
Man, L. C., Pauly, J. M., Nishimura, D. G., Macovski, A.
1999; 42 (4): 704-713
- **1999 Gary J. Becker Young Investigator Award. MR-guided transjugular portosystemic shunt placement in a swine model.** *Journal of vascular and interventional radiology*
Kee, S. T., Rhee, J. S., Butts, K., Daniel, B., Pauly, J., Kerr, A., O'Sullivan, G. J., Sze, D. Y., Razavi, M. K., Semba, C. P., Herfkens, R. J., Dake, M. D.
1999; 10 (5): 529-535
- **MR-guided transjugular portosystemic shunt placement in a swine model** *JOURNAL OF VASCULAR AND INTERVENTIONAL RADIOLOGY*
Kee, S. T., Rhee, J. S., Butts, K., Daniel, B., Pauly, J., Kerr, A., O'Sullivan, G. J., Sze, D. Y., Razavi, M. K., Semba, C. P., Herfkens, R. J., Dake, M. D.
1999; 10 (5): 529-535

- **Management of biopsy needle artifacts: Techniques for RF-refocused MRI** *JOURNAL OF MAGNETIC RESONANCE IMAGING*
Butts, K., Pauly, J. M., Daniel, B. L., Kee, S., Norbash, A. M.
1999; 9 (4): 586-595
- **Ultra-short echo-time 2D time-of-flight MR angiography using a half-pulse excitation** *MAGNETIC RESONANCE IN MEDICINE*
Nielsen, H. T., Gold, G. E., Olcott, E. W., Pauly, J. M., Nishimura, D. G.
1999; 41 (3): 591-599
- **Real-time interactive MRI for cardiac applications** *International Symposium on Ultrafast Magnetic Resonance Imaging in Medicine (ISUM 99)*
Pauly, J., Kerr, A., Meyer, C., Nayak, K., Hu, B., Yang, P., Nishimura, D., Macovski, A.
ELSEVIER SCIENCE BV.1999: 119-123
- **New real-time interactive cardiac magnetic resonance imaging system complements echocardiography** *JOURNAL OF THE AMERICAN COLLEGE OF CARDIOLOGY*
Yang, P. C., Kerr, A. B., Liu, A. C., Liang, D. H., Hardy, C., Meyer, C. H., Macovski, A., Pauly, J. M., Hu, B. S.
1998; 32 (7): 2049-2056
- **Design of practical T-2-selective RF excitation (TELEX) pulses** *MAGNETIC RESONANCE IN MEDICINE*
Sussman, M. S., Pauly, J. M., Wright, G. A.
1998; 40 (6): 890-899
- **Magnetic resonance imaging of knee cartilage repair.** *Topics in magnetic resonance imaging*
Gold, G. E., Bergman, A. G., Pauly, J. M., Lang, P., Butts, R. K., Beaulieu, C. F., Hargreaves, B., Frank, L., Boutin, R. D., Macovski, A., Resnick, D.
1998; 9 (6): 377-392
- **Feasibility study of lactate imaging of head and neck tumors** *NMR IN BIOMEDICINE*
Adalsteinsson, E., Spielman, D. M., Pauly, J. M., Terris, D. J., Sommer, G., Macovski, A.
1998; 11 (7): 360-369
- **Real-time intravascular magnetic resonance imaging system**
Hu, B. S., Scott, G. C., Meyer, C. H., Pauly, J. M., Nishimura, D. G., Macovski, A.
LIPPINCOTT WILLIAMS & WILKINS.1998: 857-57
- **Real-time cardiac MRI with color flow mapping**
Nayak, K. S., Kerr, A. B., Hu, B. S., Pauly, J. M., Nishimura, D. G.
LIPPINCOTT WILLIAMS & WILKINS.1998: 513-13
- **One-shot spatially resolved velocity imaging** *MAGNETIC RESONANCE IN MEDICINE*
Pat, G. T., Pauly, J. M., Hu, B. S., Nishimura, D. G.
1998; 40 (4): 603-613
- **Interactive coronary MRI** *5th Annual Meeting of the International-Society-of-Magnetic-Resonance-in-Medicine*
Hardy, C. J., Darrow, R. D., Pauly, J. M., Kerr, A. B., Dumoulin, C. L., Hu, B. S., Martin, K. M.
JOHN WILEY & SONS INC.1998: 105-11
- **MR imaging of articular cartilage of the knee: New methods using ultrashort TEs** *AMERICAN JOURNAL OF ROENTGENOLOGY*
Gold, G. E., Thedens, D., Pauly, J. M., Fechner, K. P., Bergman, G., Beaulieu, C. F., Macovski, A.
1998; 170 (5): 1223-1226
- **New real-time interactive cardiac magnetic resonance imaging system**
Yang, P., Kerr, A., Liu, A., Liang, D. H., Hardy, C., Meyer, C., Macovski, A., Pauly, J., Hu, B.
ELSEVIER SCIENCE INC.1998: 3A-4A
- **Isotropic diffusion-weighted and spiral-navigated interleaved EPI for routine imaging of acute stroke** *MAGNETIC RESONANCE IN MEDICINE*
Butts, K., Pauly, J., deCrespigny, A., Moseley, M.
1997; 38 (5): 741-749
- **Real-time interactive cardiac MRI examination should be considered for routine clinical evaluation of left ventricular function in select groups of patients**

Yang, P. C., Kerr, A. B., Liu, A. C., Liang, D. H., Meyer, C. H., Pittlick, P. T., Macovski, A., Pauly, J. M., Hu, B. S.
LIPPINCOTT WILLIAMS & WILKINS.1997: 1049–49

- **High resolution magnetic resonance coronary angiography with real-time interactive localization**
Meyer, C. H., Hu, B. S., Kerr, A. B., Pauly, J. M., Macovski, A., Nishimura, D. G.
LIPPINCOTT WILLIAMS & WILKINS.1997: 1377–77
- **Real-time interactive MRI on a conventional scanner** *MAGNETIC RESONANCE IN MEDICINE*
Kerr, A. B., Pauly, J. M., Hu, B. S., Li, K. C., Hardy, C. J., Meyer, C. H., Macovski, A., Nishimura, D. G.
1997; 38 (3): 355-367
- **Consistent fat suppression with compensated spectral-spatial pulses** *MAGNETIC RESONANCE IN MEDICINE*
Block, W., Pauly, J., Kerr, A., Nishimura, D.
1997; 38 (2): 198-206
- **MRI using piecewise-linear spiral trajectory** *MAGNETIC RESONANCE IN MEDICINE*
Liao, J. R., Pauly, J. M., Pelc, N. J.
1997; 38 (2): 246-252
- **Improved solvent suppression and increased spatial excitation bandwidths for three-dimensional PRESS CSI using phase-compensating spectral/spatial spin-echo pulses** *JOURNAL OF MAGNETIC RESONANCE IMAGING*
StarLack, J., Vigneron, D. B., Pauly, J., Kurhanewicz, J., Nelson, S. J.
1997; 7 (4): 745-757
- **Background suppression with multiple inversion recovery nulling: Applications to projective angiography** *MAGNETIC RESONANCE IN MEDICINE*
Mani, S., Pauly, J., Conolly, S., Meyer, C., Nishimura, D.
1997; 37 (6): 898-905
- **Improved automatic off-resonance correction without a field map in spiral imaging** *MAGNETIC RESONANCE IN MEDICINE*
Man, L. C., Pauly, J. M., Macovski, A.
1997; 37 (6): 906-913
- **Multifrequency interpolation for fast off-resonance correction** *MAGNETIC RESONANCE IN MEDICINE*
Man, L. C., Pauly, J. M., Macovski, A.
1997; 37 (5): 785-792
- **Short echo time projection reconstruction MR imaging of cartilage: Comparison with fat-suppressed spoiled GRASS and magnetization transfer contrast MR imaging** *RADIOLOGY*
Brossmann, J., Frank, L. R., Pauly, J. M., Boutin, R. D., Pedowitz, R. A., Haghighi, P., Resnick, D.
1997; 203 (2): 501-507
- **RARE spiral T-2-weighted imaging** *MAGNETIC RESONANCE IN MEDICINE*
Block, W., Pauly, J., Nishimura, D.
1997; 37 (4): 582-590
- **Reduction of motion artifacts in cine MRI using variable-density spiral trajectories** *MAGNETIC RESONANCE IN MEDICINE*
Liao, J. R., Pauly, J. M., Brosnan, T. J., Pelc, N. J.
1997; 37 (4): 569-575
- **Reducing flow artifacts in echo-planar imaging** *MAGNETIC RESONANCE IN MEDICINE*
Pat, G. T., Meyer, C. H., Pauly, J. M., Nishimura, D. G.
1997; 37 (3): 436-447
- **New real-time interactive cardiac magnetic resonance imaging system is useful in subjects with suboptimal echocardiographic studies**
Yang, P., Kerr, A., Liu, A., Pauly, J., Hardy, C., Meyer, C., Macovski, A., Hu, B.
ELSEVIER SCIENCE INC.1997: 7595–95
- **Angiographic imaging with 2D RF pulses** *MAGNETIC RESONANCE IN MEDICINE*
Alley, M. T., Pauly, J. M., Sommer, F. G., Pelc, N. J.
1997; 37 (2): 260-267

- **Diffusion-weighted interleaved echo-planar imaging with a pair of orthogonal navigator echoes** *MAGNETIC RESONANCE IN MEDICINE*
Butts, K., deCrespigny, A., Pauly, J. M., Moseley, M.
1996; 35 (5): 763-770
- **Decomposition of inflow and blood oxygen level-dependent (BOLD) effects with dual-echo spiral gradient-recalled echo (GRE) fMRI** *MAGNETIC RESONANCE IN MEDICINE*
Glover, G. H., Lemieux, S. K., Drangova, M., Pauly, J. M.
1996; 35 (3): 299-308
- **MR SPECTROSCOPIC IMAGING OF COLLAGEN - TENDONS AND KNEE MENISCI** *MAGNETIC RESONANCE IN MEDICINE*
Gold, G. E., Pauly, J. M., Macovski, A., Herfkens, R. J.
1995; 34 (5): 647-654
- **SPIRAL IMAGING ON A SMALL-BORE SYSTEM AT 4.7T** *MAGNETIC RESONANCE IN MEDICINE*
Spielman, D. M., Pauly, J. M.
1995; 34 (4): 580-585
- **MAGNETIC-RESONANCE FLUOROSCOPY USING SPIRALS WITH VARIABLE SAMPLING DENSITIES** *MAGNETIC RESONANCE IN MEDICINE*
Spielman, D. M., Pauly, J. M., Meyer, C. H.
1995; 34 (3): 388-394
- **SHORT TE PHOSPHORUS SPECTROSCOPY USING A SPIN-ECHO PULSE** *MAGNETIC RESONANCE IN MEDICINE*
Lim, K. O., Pauly, J., Webb, P., Hurd, R., Macovski, A.
1994; 32 (1): 98-103
- **LOCALIZED REAL-TIME VELOCITY SPECTRA DETERMINATION** *MAGNETIC RESONANCE IN MEDICINE*
Hu, B. S., Pauly, J. M., Nishimura, D. G.
1993; 30 (3): 393-398
- **SPATIALLY-RESOLVED AND LOCALIZED REAL-TIME VELOCITY DISTRIBUTION** *MAGNETIC RESONANCE IN MEDICINE*
Irrazabal, P., Hu, B. S., Pauly, J. M., Nishimura, D. G.
1993; 30 (2): 207-212
- **INCORPORATING LACTATE LIPID DISCRIMINATION INTO A SPECTROSCOPIC IMAGING SEQUENCE** *MAGNETIC RESONANCE IN MEDICINE*
Adalsteinsson, E., Spielman, D. M., Wright, G. A., Pauly, J. M., Meyer, C. H., Macovski, A.
1993; 30 (1): 124-130
- **ECHO-PLANAR SPIN-ECHO AND INVERSION PULSES** *MAGNETIC RESONANCE IN MEDICINE*
Pauly, J., Spielman, D., Macovski, A.
1993; 29 (6): 776-782
- **CHARACTERIZATION OF ATHEROSCLEROSIS WITH A 1.5-T IMAGING-SYSTEM** *JMRI-JOURNAL OF MAGNETIC RESONANCE IMAGING*
Gold, G. E., Pauly, J. M., Glover, G. H., Moretto, J. C., Macovski, A., Herfkens, R. J.
1993; 3 (2): 399-407
- **MAGNETIC-RESONANCE ANGIOGRAPHY** *WORKSHOP ON CARDIOVASCULAR IMAGING*
Macovski, A., Hu, B., Meyer, C., Pauly, J., Wright, G., Nishimura, D. G.
RAVEN PRESS.1993: 221-236
- **MAGNETIC-RESONANCE-IMAGING OF LUNG PARENCHYMA** *JOURNAL OF THORACIC IMAGING*
Bergin, C. J., GLOVER, G. M., Pauly, J.
1993; 8 (1): 12-17
- **A 3-DIMENSIONAL SPIN-ECHO OR INVERSION PULSE** *MAGNETIC RESONANCE IN MEDICINE*
Pauly, J. M., Hu, B. S., Wang, S. J., Nishimura, D. G., Macovski, A.
1993; 29 (1): 2-6
- **PROJECTION RECONSTRUCTION TECHNIQUES FOR REDUCTION OF MOTION EFFECTS IN MRI** *MAGNETIC RESONANCE IN MEDICINE*

- Glover, G. H., Pauly, J. M.
1992; 28 (2): 275-289
- **DEBLURRING FOR NON-2D FOURIER-TRANSFORM MAGNETIC-RESONANCE-IMAGING** *MAGNETIC RESONANCE IN MEDICINE*
Noll, D. C., Pauly, J. M., Meyer, C. H., Nishimura, D. G., Macovski, A.
1992; 25 (2): 319-333
 - **MR IMAGING OF LUNG PARENCHYMA - A SOLUTION TO SUSCEPTIBILITY** *RADIOLOGY*
Bergin, C. J., Noll, D. C., Pauly, J. M., Glover, G. H., Macovski, A.
1992; 183 (3): 673-676
 - **LIPID-SUPPRESSED SINGLE-SECTION AND MULTISECTION PROTON SPECTROSCOPIC IMAGING OF THE HUMAN BRAIN** *JOURNAL OF MAGNETIC RESONANCE IMAGING*
Spielman, D. M., Pauly, J. M., Macovski, A., Glover, G. H., Enzmann, D. R.
1992; 2 (3): 253-262
 - **2-DIMENSIONAL SELECTIVE ADIABATIC PULSES** *MAGNETIC RESONANCE IN MEDICINE*
Conolly, S., Pauly, J., Nishimura, D., Macovski, A.
1992; 24 (2): 302-313
 - **EFFECTS OF RF AMPLIFIER DISTORTION ON SELECTIVE EXCITATION AND THEIR CORRECTION BY PREWARPING** *MAGNETIC RESONANCE IN MEDICINE*
Chan, F., Pauly, J., Macovski, A.
1992; 23 (2): 224-238
 - **B-11 IMAGING WITH A 3-DIMENSIONAL RECONSTRUCTION METHOD** *JMRI-JOURNAL OF MAGNETIC RESONANCE IMAGING*
Glover, G. H., Pauly, J. M., Bradshaw, K. M.
1992; 2 (1): 47-52
 - **A HOMOGENEITY CORRECTION METHOD FOR MAGNETIC-RESONANCE-IMAGING WITH TIME-VARYING GRADIENTS** *IEEE TRANSACTIONS ON MEDICAL IMAGING*
Noll, D. C., Meyer, C. H., Pauly, J. M., Nishimura, D. G., Macovski, A.
1991; 10 (4): 629-637
 - **ON THE NATURE AND REDUCTION OF THE DISPLACEMENT ARTIFACT IN FLOW IMAGES** *MAGNETIC RESONANCE IN MEDICINE*
Nishimura, D. G., Jackson, J. I., Pauly, J. M.
1991; 22 (2): 481-492
 - **LUNG PARENCHYMA - MAGNETIC-SUSCEPTIBILITY IN MR IMAGING** *RADIOLOGY*
Bergin, C. J., Glover, G. H., Pauly, J. M.
1991; 180 (3): 845-848
 - **LUNG PARENCHYMA - PROJECTION RECONSTRUCTION MR-IMAGING** *RADIOLOGY*
Bergin, C. J., Pauly, J. M., Macovski, A.
1991; 179 (3): 777-781
 - **SPECTROSCOPIC IMAGING WITH MULTIDIMENSIONAL PULSES FOR EXCITATION - SIMPLE** *MAGNETIC RESONANCE IN MEDICINE*
Spielman, D., Pauly, J., Macovski, A., ENZMANN, D.
1991; 19 (1): 67-84
 - **PARAMETER RELATIONS FOR THE SHINNAR-LEROUX SELECTIVE EXCITATION PULSE DESIGN ALGORITHM** *IEEE TRANSACTIONS ON MEDICAL IMAGING*
Pauly, J., LEROUX, P., Nishimura, D., Macovski, A.
1991; 10 (1): 53-65
 - **MAGNETIC-RESONANCE RECONSTRUCTION FROM PROJECTIONS USING HALF THE DATA** *CONF ON MEDICAL IMAGING 5 : IMAGE PHYSICS*
Noll, D. C., Pauly, J. M., Nishimura, D. G., Macovski, A.
SPIE - INT SOC OPTICAL ENGINEERING.1991: 29-36
 - **SIMULTANEOUS SPATIAL AND SPECTRAL SELECTIVE EXCITATION** *MAGNETIC RESONANCE IN MEDICINE*

Meyer, C. H., Pauly, J. M., Macovski, A., Nishimura, D. G.
1990; 15 (2): 287-304

- **A LINEAR CLASS OF LARGE-TIP-ANGLE SELECTIVE EXCITATION PULSES** *JOURNAL OF MAGNETIC RESONANCE*
Pauly, J., Nishimura, D., Macovski, A.
1989; 82 (3): 571-587
- **A K-SPACE ANALYSIS OF SMALL-TIP-ANGLE EXCITATION** *JOURNAL OF MAGNETIC RESONANCE*
Pauly, J., Nishimura, D., Macovski, A.
1989; 81 (1): 43-56
- **CONSIDERATIONS OF MAGNETIC-RESONANCE ANGIOGRAPHY BY SELECTIVE INVERSION RECOVERY** *MAGNETIC RESONANCE IN MEDICINE*
Nishimura, D. G., Macovski, A., Pauly, J. M.
1988; 7 (4): 472-484
- **CIRCADIAN-STAGE DEPENDENT EFFECTS OF INTERLEUKIN-2 ON [H-3] TDR INCORPORATION INTO DNA IN THE SMALL-INTESTINE OF CD2F1 MICE**
Scheving, L. A., Tsai, T. H., Feuers, R. J., PAULY, J. E., Scheving, L. E.
WILEY-LISS.1988: A85-A85
- **EFFECT OF EPIDERMAL GROWTH-FACTOR (EGF) AND FASTING ON DNA-SYNTHESIS IN THE SMALL-INTESTINE OF CD2F1 MALE-MICE**
Scheving, L. E., Tsai, T. H., Scheving, L. A., PAULY, J. E.
WILEY-LISS.1987: A120-A120
- **MR ANGIOGRAPHY BY SELECTIVE INVERSION RECOVERY** *MAGNETIC RESONANCE IN MEDICINE*
Nishimura, D. G., Macovski, A., Pauly, J. M., Conolly, S. M.
1987; 4 (2): 193-202
- **MAGNETIC-RESONANCE ANGIOGRAPHY** *IEEE TRANSACTIONS ON MEDICAL IMAGING*
Nishimura, D. G., Macovski, A., Pauly, J. M.
1986; 5 (3): 140-151