


Kawin Setsompop

Associate Professor of Radiology (Radiological Sciences Laboratory) and, by courtesy, of Electrical Engineering

 Curriculum Vitae available Online

CONTACT INFORMATION

• Alternate Contact

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Bio

BIO

Kawin Setsompop is an Associate Professor of Radiology and, by courtesy, of Electrical Engineering. His research focuses on the development of novel MRI acquisition methods, with the goal of creating imaging technologies that can be used to help better understand brain structure and function for applications in Healthcare and Health sciences. He received his Master's degree in Engineering Science from Oxford University and his PhD in Electrical Engineering and Computer Science from MIT. For the last decade, prior to joining Stanford in 2020, he led a research group at Harvard/MIT that pioneered a number of widely used MRI acquisition technologies. A number of these technologies have been successfully translated into FDA-approved software products that are being used daily on MRI scanners across the world, in both the clinical and neuroscientific fields.

ACADEMIC APPOINTMENTS

- Associate Professor, Radiology
- Associate Professor (By courtesy), Electrical Engineering

ADMINISTRATIVE APPOINTMENTS

- Associate Chair of Research Strategic Development, Department of Radiology, (2020- present)

HONORS AND AWARDS

- K99/R00 Career development award, National Institute of Health (2010)
- NIBIB New Horizon plenary lecture, International Society of Magnetic Resonance in Medicine (2016)
- Fellow, International Society of Magnetic Resonance in Medicine (2020)

BOARDS, ADVISORY COMMITTEES, PROFESSIONAL ORGANIZATIONS

- Advisory Board, Subtle Medical (2021 - present)
- Advisory Board, Kinetikor (2018 - present)

PROFESSIONAL EDUCATION

- PostDoc, Harvard University/Massachusetts General Hospital, Radiology (2010)

- Ph.D., MIT , Electrical Engineering and Computer Science (2008)
- M.Eng, Oxford University , Engineering Science (2003)

PATENTS

- Cauley, Bilgic, Setsompop, Wald. "United States Patent US10126397 Systems and methods for fast magnetic resonance image reconstruction using a heirarchically semiseparable solver"
- Hoge, Polimeni, Setsompop. "United States Patent US10175328B2 System and method for reconstructing ghost-free images from data acquired using simultaneous multislice magnetic resonance imaging"
- Zhao, Setsompop, Wald. "United States Patent US10241176B2 Systems and methods for statistical reconstruction of magnetic resonance fingerprinting data"
- Cauley, Polimeni, Setsompop, Wald. "United States Patent US10310042B2 Hierrarchical mapping framework for coil compression in magnetic resonance image reconstruction"
- Setsompop, Stockmann, Wald, Witzel. "United States Patent US10324149B2 Systems and methods for generalized slice dithered enhanced resolution magnetic resonance imaging"
- Eichner, Wald, Setsompop. "United States Patent US10345409B2 System and method for simultaneous multislice excitation using combined multiband and periodic slice"
- Cauley, Setsompop, Wald. "United States Patent US10408910B2 Systems and methods for joint trajectory and parallel magnetic resonance imaging optimization for auto-calibrated image reconstruction"
- Polimeni, Setsompop, Wald. "United States Patent US10429475B2 Method for increasing signal-to-noise ratio in magnetic resonance imaging using per-voxel noise"
- Setsompop, Bilgic, Wald. "United States Patent US10436866B2 Simultaneous multislice MRI with random gradient encoding"
- Gulani, Griswold, Yang, Jiang, Setsompop. "United States Patent US10598747 System and method for simultaneous multislice magnetic resonance fingerprinting with variable radio frequency encoding"
- Eichner, Setsompop, Wald, Cauley. "United States Patent US10605882 Systems and methods for removing background phase variations in diffusionweighted magnetic resonance imaging"
- Setsompop, Wald, Dong, Guo, Wang, Reese. "United States Patent US10871534 Accelerated magnetic resonance imaging using tilted reconstruction kernel in phase encoded and point spread function encoded k-space"
- Polak, Raithel, Setsompop. "United States Patent US10895622 Noise suppression for wave-CAIPI"
- Setsompop, Wald, Dong, Guo, Wang, Reese. "United States Patent US10901061 Accelerated diffusion-weighted magnetic resonance imaging with self-navigated, phase corrected titled kernel reconstruction of phase encode and point spread function encoded k-space"
- Setsompop, Bilgic, Wald, Witzel. "United States Patent US10908248 Systems and methods for slice dithered enhanced resolution simultaneous multislice magnetic resonance imaging"
- Bilgic Setsompop, Polak, Ye, Wald. "United States Patent US11009675 Method for simultaneous time-interleaved multislice magnetic resonance imaging"
- Polak, Setsompop. "United States Patent US20200249301 Reconstruction of Magnetic-Resonance Datasets using Machine Learning"
- Polak, Setsompop. "United States Patent US20200341094 Multi-contrast MRI Imaging Reconstruction using Machine Learning"
- Zelinski, Adalsteinsson, Setsompop, Wald, Fontius. "United States Patent US7336145 Method for designing RF excitation pulses in magnetic resonance tomography"
- Setsompop, Alagappan, Adalsteinsson, Wald. "United States Patent US8076939 Method for Fast Magnetic Resonance Radiofrequency Coil Transmission Profile Mapping."
- Setsompop, Alagappan, Adalsteinsson, Wald. "United States Patent US8076939 Method for Fast Magnetic Resonance Radiofrequency Coil Transmission Profile Mapping"
- Setsompop, Alagappan, Gagoski, Wald, Adalsteinsson. "United States Patent US8085044 Method for producing spectral-spatial parallel RF excitations for magnetic resonance imaging"
- Zelinski, Setsompop, Adalsteinsson, Goyal. "United States Patent US8148985 Method for Reducing Maximum Local Specific Absorption Rate in Magnetic Resonance Imaging"
- Setsompop, Wald. "United States Patent US8405395 Method for Simultaneous Multi-slice Magnetic Resonance Imaging"
- Adalsteinsson, Fautz, Setsompop, Wald. "United States Patent US8866478 Method and processor and magnetic resonance apparatus for designing RF pulses to mitigate off-resonance effects"
- Setsompop, Wald. "United States Patent US8981776 Method for magnetic resonance imaging with controlled aliasing"
- Setsompop, Wald. "United States Patent US9081055 Method for Reducing Local Specific Absorption Rate in Magnetic Resonance Imaging Using Radio Frequency Coil Array Dark Modes"

- Setsompop, Bilgic. "United States Patent US9542763 Systems and methods for fast reconstruction for Quantitative Susceptibility Mapping using Magnetic Resonance Imaging"
- Polimeni, Bhat, Heberlein, Setsompop, Witzel, Cauley. "United States Patent US9588208 Methods, systems and apparatuses for rapid segmented, accelerated, and simultaneous multi-slice echo planar imaging"
- Polimeni, Wald, Setsompop. "United States Patent US9778336 System and method for rapid, multi-shot segmented magnetic resonance imaging"
- Setsompop, Griswold, Ye, Wald, Ma, Jiang. "United States Patent US9897675B2 Magnetic resonance fingerprinting (MRF) with simultaneous multivolume acquisition"
- Cauley, Griswold, Setsompop, Wald. "United States Patent US9964616B2 Fast group matching for magnetic resonance fingerprinting reconstruction"

LINKS

- My Lab Site: <https://med.stanford.edu/setsompoplab.html>

Teaching

STANFORD ADVISEES

Postdoctoral Faculty Sponsor

Xiaozhi Cao, Quan Chen, Merlin Fair, Congyu Liao, Sophie Schauman, Nan Wang

Doctoral Dissertation Co-Advisor (AC)

Ariel Hannum

Publications

PUBLICATIONS

- **Comparison of ultrafast wave-controlled aliasing in parallel imaging (CAIPI) magnetization-prepared rapid acquisition gradient echo (MP-RAGE) and standard MP-RAGE in non-sedated children: initial clinical experience.** *Pediatric radiology*
Tabari, A., Conklin, J., Figueiro Longo, M. G., Jaimes, C., Setsompop, K., Cauley, S. F., Kirsch, J. E., Huang, S. Y., Rapalino, O., Gee, M. S., Caruso, P. J.
2021
- **Feasibility of accelerated 3D T1-weighted MRI using compressed sensing: application to quantitative volume measurements of human brain structures.** *Magma (New York, N.Y.)*
Yarach, U., Saekho, S., Setsompop, K., Suwannasak, A., Boonsuth, R., Wantanajittikul, K., Angkurawaranon, S., Angkurawaranon, C., Sangpin, P.
2021
- **MRI Highly Accelerated Wave-CAIPI T1-SPACE versus Standard T1-SPACE to detect brain gadolinium-enhancing lesions at 3T.** *Journal of neuroimaging : official journal of the American Society of Neuroimaging*
Goncalves Filho, A. L., Longo, M. G., Conklin, J., Cauley, S. F., Polak, D., Liu, W., Splitthoff, D. N., Lo, W., Kirsch, J. E., Setsompop, K., Schaefer, P. W., Huang, S. Y., Rapalino, et al
2021
- **Efficient T2 mapping with blip-up/down EPI and gSlider-SMS (T2 -BUDA-gSlider).** *Magnetic resonance in medicine*
Cao, X., Wang, K., Liao, C., Zhang, Z., Srinivasan Iyer, S., Chen, Z., Lo, W., Liu, H., He, H., Setsompop, K., Zhong, J., Bilgic, B.
2021
- **Segmented simultaneous multi-slice diffusion-weighted imaging with navigated 3D rigid motion correction.** *Magnetic resonance in medicine*
Riedel Ne Steinhoff, M., Setsompop, K., Mertins, A., Bornert, P.
2021
- **Coupled Neural, Vascular, and Cerebrospinal Fluid Dynamics in Human Sleep**
Fultz, N., Bonmassar, G., Setsompop, K., Stickgold, R., Rosen, B., Polimeni, J., Lewis, L.
ELSEVIER SCIENCE INC.2021: S31
- **A multi-inversion multi-echo spin and gradient echo echo planar imaging sequence with low image distortion for rapid quantitative parameter mapping and synthetic image contrasts** *MAGNETIC RESONANCE IN MEDICINE*
Manhard, M., Stockmann, J., Liao, C., Park, D., Han, S., Fair, M., van den Boomen, M., Polimeni, J., Bilgic, B., Setsompop, K.

2021

- **Variable flip angle Echo Planar Time-Resolved Imaging (vFA-EPTI) for fast high-resolution gradient echo myelin water imaging.** *NeuroImage*
Dong, Z., Wang, F., Chan, K., Reese, T. G., Bilgic, B., Marques, J. P., Setsompop, K.
2021: 117897
- **In vivo human whole-brain Connectom diffusion MRI dataset at 760 μm isotropic resolution.** *Scientific data*
Wang, F. n., Dong, Z. n., Tian, Q. n., Liao, C. n., Fan, Q. n., Hoge, W. S., Keil, B. n., Polimeni, J. R., Wald, L. L., Huang, S. Y., Setsompop, K. n.
2021; 8 (1): 122
- **SNR-enhanced diffusion MRI with structure-preserving low-rank denoising in reproducing kernel Hilbert spaces.** *Magnetic resonance in medicine*
Ramos-Llordén, G. n., Vegas-Sánchez-Ferrero, G. n., Liao, C. n., Westin, C. F., Setsompop, K. n., Rathi, Y. n.
2021
- **Distortion-free, high-isotropic-resolution diffusion MRI with gSlider BUDA-EPI and multicoil dynamic B0 shimming.** *Magnetic resonance in medicine*
Liao, C. n., Bilgic, B. n., Tian, Q. n., Stockmann, J. P., Cao, X. n., Fan, Q. n., Iyer, S. S., Wang, F. n., Ngamsombat, C. n., Lo, W. C., Manhard, M. K., Huang, S. Y., Wald, et al
2021
- **Robust autocalibrated structured low-rank EPI ghost correction.** *Magnetic resonance in medicine*
Lobos, R. A., Hoge, W. S., Javed, A., Liao, C., Setsompop, K., Nayak, K. S., Haldar, J. P.
2020
- **Diffusion-PEPTIDE: Distortion- and blurring-free diffusion imaging with self-navigated motion-correction and relaxometry capabilities.** *Magnetic resonance in medicine*
Fair, M. J., Liao, C., Manhard, M. K., Setsompop, K.
2020
- **Nonlinear dipole inversion (NDI) enables robust quantitative susceptibility mapping (QSM).** *NMR in biomedicine*
Polak, D., Chatmuntawech, I., Yoon, J., Iyer, S. S., Milovic, C., Lee, J., Bachert, P., Adalsteinsson, E., Setsompop, K., Bilgic, B.
2020; 33 (12): e4271
- **Improving in vivo human cerebral cortical surface reconstruction using data-driven super-resolution.** *Cerebral cortex (New York, N.Y. : 1991)*
Tian, Q., Bilgic, B., Fan, Q., Ngamsombat, C., Zaretskaya, N., Fultz, N. E., Ohringer, N. A., Chaudhari, A. S., Hu, Y., Witzel, T., Setsompop, K., Polimeni, J. R., Huang, et al
2020
- **Axon diameter index estimation independent of fiber orientation distribution using high-gradient diffusion MRI.** *NeuroImage*
Fan, Q., Nummenmaa, A., Witzel, T., Ohringer, N., Tian, Q., Setsompop, K., Klawiter, E. C., Rosen, B. R., Wald, L. L., Huang, S. Y.
2020; 222: 117197
- **Ultra-high spatial resolution BOLD fMRI in humans using combined segmented-accelerated VFA-FLEET with a recursive RF pulse design** *MAGNETIC RESONANCE IN MEDICINE*
Berman, A. L., Grissom, W. A., Witzel, T., Nasr, S., Park, D. J., Setsompop, K., Polimeni, J. R.
2020
- **SURE-based automatic parameter selection for ESPIRiT calibration** *MAGNETIC RESONANCE IN MEDICINE*
Iyer, S., Ong, F., Setsompop, K., Doneva, M., Lustig, M.
2020
- **DeepDTI: High-fidelity six-direction diffusion tensor imaging using deep learning.** *NeuroImage*
Tian, Q., Bilgic, B., Fan, Q., Liao, C., Ngamsombat, C., Hu, Y., Witzel, T., Setsompop, K., Polimeni, J. R., Huang, S. Y.
2020: 117017
- **Echo planar time-resolved imaging with subspace reconstruction and optimized spatiotemporal encoding** *MAGNETIC RESONANCE IN MEDICINE*
Dong, Z., Wang, F., Reese, T. G., Bilgic, B., Setsompop, K.
2020: 2442–55
- **Joint multi-contrast variational network reconstruction (jVN) with application to rapid 2D and 3D imaging** *MAGNETIC RESONANCE IN MEDICINE*
Polak, D., Cauley, S., Bilgic, B., Gong, E., Bachert, P., Adalsteinsson, E., Setsompop, K.
2020; 84 (3): 1456–69

- **High-fidelity, accelerated whole-brain submillimeter in vivo diffusion MRI using gSlider-spherical ridgelets (gSlider-SR)** *MAGNETIC RESONANCE IN MEDICINE*
Ramos-Llorden, G., Ning, L., Liao, C., Mukhometzianov, R., Michailovich, O., Setsompop, K., Rathi, Y.
2020; 84 (4): 1781–95
- **Blood Oxygen Level-Dependent MRI of the Myocardium with Multiecho Gradient-Echo Spin-Echo Imaging** *RADIOLOGY*
van den Boomen, M., Manhard, M., Snel, G. H., Han, S., Emblem, K. E., Slart, R. A., Sosnovik, D. E., Catana, C., Rosen, B. R., Prakken, N. J., Nguyen, C. T., Borra, R. H., Setsompop, et al
2020; 294 (3): 538–45
- **Further Development of Subspace Imaging to Magnetic Resonance Fingerprinting: A Low-rank Tensor Approach.** *Annual International Conference of the IEEE Engineering in Medicine and Biology Society. IEEE Engineering in Medicine and Biology Society. Annual International Conference*
Zhao, B., Setsompop, K., Salat, D., Wald, L. L.
2020; 2020: 1662–66
- **FURTHER DEVELOPMENT OF SUBSPACE IMAGING TO MAGNETIC RESONANCE FINGERPRINTING: A LOW-RANK TENSOR APPROACH**
Zhao, B., Setsompop, K., Salat, D., Wald, L. L., IEEE
IEEE.2020: 1662–66
- **Accelerated Post-contrast Wave-CAIPI T1 SPACE Achieves Equivalent Diagnostic Performance Compared With Standard T1 SPACE for the Detection of Brain Metastases in Clinical 3T MRI.** *Frontiers in neurology*
Goncalves Filho, A. L., Conklin, J., Longo, M. G., Cauley, S. F., Polak, D., Liu, W., Splitthoff, D. N., Lo, W., Kirsch, J. E., Setsompop, K., Schaefer, P. W., Huang, S. Y., Rapalino, et al
2020; 11: 587327
- **High-fidelity, high-isotropic-resolution diffusion imaging through gSlider acquisition with B 1 + and T1 corrections and integrated #B0 /Rx shim array.** *Magnetic resonance in medicine*
Liao, C. n., Stockmann, J. n., Tian, Q. n., Bilgic, B. n., Arango, N. S., Manhard, M. K., Huang, S. Y., Grissom, W. A., Wald, L. L., Setsompop, K. n.
2020; 83 (1): 56–67
- **Linear Predictability in Magnetic Resonance Imaging Reconstruction: Leveraging Shift-Invariant Fourier Structure for Faster and Better Imaging** *IEEE SIGNAL PROCESSING MAGAZINE*
Haldar, J. P., Setsompop, K.
2020; 37 (1): 69–82
- **Accelerated spin-echo functional MRI using multisection excitation by simultaneous spin-echo interleaving (MESSI) with complex-encoded generalized slice dithered enhanced resolution (cgSlider) simultaneous multislice echo-planar imaging** *MAGNETIC RESONANCE IN MEDICINE*
Han, S., Liao, C., Manhard, M., Park, D., Bilgic, B., Fair, M. J., Wang, F., Blazejewska, A., Grissom, W. A., Polimeni, J. R., Setsompop, K.
2020; 84 (1): 206–20
- **Propeller echo-planar time-resolved imaging with dynamic encoding** *MAGNETIC RESONANCE IN MEDICINE*
Fair, M. J., Wang, F., Dong, Z., Reese, T. G., Setsompop, K.
2020; 83 (6): 2124–37
- **Coupled electrophysiological, hemodynamic, and cerebrospinal fluid oscillations in human sleep** *SCIENCE*
Fultz, N. E., Bonmassar, G., Setsompop, K., Stickgold, R. A., Rosen, B. R., Polimeni, J. R., Lewis, L. D.
2019; 366 (6465): 628+
- **Highly accelerated multishot echo planar imaging through synergistic machine learning and joint reconstruction** *MAGNETIC RESONANCE IN MEDICINE*
Bilgic, B., Chatnuntaweck, I., Manhard, M., Tian, Q., Liao, C., Iyer, S. S., Cauley, S. F., Huang, S. Y., Polimeni, J. R., Wald, L. L., Setsompop, K.
2019; 82 (4): 1343–58
- **Network Accelerated Motion Estimation and Reduction (NAMER): Convolutional neural network guided retrospective motion correction using a separable motion model** *MAGNETIC RESONANCE IN MEDICINE*
Haskell, M. W., Cauley, S. F., Bilgic, B., Hossbach, J., Splitthoff, D. N., Pfeuffer, J., Setsompop, K., Wald, L. L.
2019; 82 (4): 1452–61
- **Full utilization of conjugate symmetry: combining virtual conjugate coil reconstruction with partial Fourier imaging for g-factor reduction in accelerated MRI** *MAGNETIC RESONANCE IN MEDICINE*
Kettinger, A. O., Setsompop, K., Kannengiesser, S. R., Breuer, F. A., Vidnyanszky, Z., Blaimer, M.
2019; 82 (3): 1073–90

- **Highly-accelerated volumetric brain examination using optimized wave-CAIPI encoding** *JOURNAL OF MAGNETIC RESONANCE IMAGING*
Polak, D., Cauley, S., Huang, S. Y., Longo, M., Conklin, J., Bilgic, B., Ohringer, N., Raithele, E., Bachert, P., Wald, L. L., Setsompop, K.
2019; 50 (3): 961–74
- **Accelerated whole-brain perfusion imaging using a simultaneous multislice spin-echo and gradient-echo sequence with joint virtual coil reconstruction** *MAGNETIC RESONANCE IN MEDICINE*
Manhard, M., Bilgic, B., Liao, C., Han, S., Witzel, T., Yen, Y., Setsompop, K.
2019; 82 (3): 973–83
- **Phase-matched virtual coil reconstruction for highly accelerated diffusion echo-planar imaging** *NEUROIMAGE*
Liao, C., Manhard, M., Bilgic, B., Tian, Q., Fan, Q., Han, S., Wang, F., Park, D., Witzel, T., Zhong, J., Wang, H., Wald, L. L., Setsompop, et al
2019; 194: 291–302
- **Echo planar time-resolved imaging (EPTI)** *MAGNETIC RESONANCE IN MEDICINE*
Wang, F., Dong, Z., Reese, T. G., Bilgic, B., Manhard, M., Chen, J., Polimeni, J. R., Wald, L. L., Setsompop, K.
2019; 81 (6): 3599–3615
- **The quest for high spatial resolution diffusion-weighted imaging of the human brain in vivo** *NMR IN BIOMEDICINE*
Holdsworth, S. J., O'Halloran, R., Setsompop, K.
2019; 32 (4): e4056
- **Optimal Experiment Design for Magnetic Resonance Fingerprinting: Cramer-Rao Bound Meets Spin Dynamics** *IEEE TRANSACTIONS ON MEDICAL IMAGING*
Zhao, B., Haldar, J. P., Liao, C., Ma, D., Jiang, Y., Griswold, M. A., Setsompop, K., Wald, L. L.
2019; 38 (3): 844–61
- **Wave-LORAKS: Combining wave encoding with structured low-rank matrix modeling for more highly accelerated 3D imaging** *MAGNETIC RESONANCE IN MEDICINE*
Kim, T., Bilgic, B., Polak, D., Setsompop, K., Haldar, J. P.
2019; 81 (3): 1620–33
- **Highly efficient MRI through multi-shot echo planar imaging**
Liao, C., Cao, X., Cho, J., Zhang, Z., Setsompop, K., Bilgic, B., VanDeVille, D., Papadakis, M., Lu, Y. M.
SPIE-INT SOC OPTICAL ENGINEERING.2019
- **Tilted-CAIPI for highly accelerated distortion-free EPI with point spread function (PSF) encoding** *MAGNETIC RESONANCE IN MEDICINE*
Dong, Z., Wang, F., Reese, T. G., Manhard, M., Bilgic, B., Wald, L. L., Guo, H., Setsompop, K.
2019; 81 (1): 377–92
- **Motion-robust sub-millimeter isotropic diffusion imaging through motion corrected generalized slice dithered enhanced resolution (MC-gSlider) acquisition** *MAGNETIC RESONANCE IN MEDICINE*
Wang, F., Bilgic, B., Dong, Z., Manhard, M., Ohringer, N., Zhao, B., Haskell, M., Cauley, S. F., Fan, Q., Witzel, T., Adalsteinsson, E., Wald, L. L., Setsompop, et al
2018; 80 (5): 1891–1906
- **Stimulus-dependent hemodynamic response timing across the human subcortical-cortical visual pathway identified through high spatiotemporal resolution 7T fMRI** *NEUROIMAGE*
Lewis, L. D., Setsompop, K., Rosen, B. R., Polimeni, J. R.
2018; 181: 279–91
- **Dynamic 2D self-phase-map Nyquist ghost correction for simultaneous multi-slice echo planar imaging** *MAGNETIC RESONANCE IN MEDICINE*
Yarach, U., Tung, Y., Setsompop, K., In, M., Chatnuntawech, I., Yakupov, R., Godenschweger, F., Speck, O.
2018; 80 (4): 1577–87
- **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
- **Dual-polarity slice-GRAPPA for concurrent ghost correction and slice separation in simultaneous multi-slice EPI** *MAGNETIC RESONANCE IN MEDICINE*
Hoge, W., Setsompop, K., Polimeni, J. R.

2018; 80 (4): 1364–75

- **Wave-CAIPI ViSta: highly accelerated whole-brain direct myelin water imaging with zero-padding reconstruction** *MAGNETIC RESONANCE IN MEDICINE*
Wu, Z., Bilgic, B., He, H., Tong, Q., Sun, Y., Du, Y., Setsompop, K., Zhong, J.
2018; 80 (3): 1061–73
- **Improving parallel imaging by jointly reconstructing multi-contrast data** *MAGNETIC RESONANCE IN MEDICINE*
Bilgic, B., Kim, T., Liao, C., Manhard, M., Wald, L. L., Haldar, J. P., Setsompop, K.
2018; 80 (2): 619–32
- **Prefrontal Cortex Stimulation Enhances Fear Extinction Memory in Humans** *BIOLOGICAL PSYCHIATRY*
Raij, T., Nummenmaa, A., Marin, M., Porter, D., Furtak, S., Setsompop, K., Milad, M. R.
2018; 84 (2): 129–37
- **Simultaneous Multislice Resting-State Functional Magnetic Resonance Imaging at 3 Tesla: Slice-Acceleration-Related Biases in Physiological Effects** *BRAIN CONNECTIVITY*
Golestani, A. M., Faraji-Dana, Z., Kayvanrad, M., Setsompop, K., Graham, S. J., Chen, J.
2018; 8 (2): 82–93
- **Pulse sequences and parallel imaging for high spatiotemporal resolution MRI at ultra-high field** *NEUROIMAGE*
Poser, B. A., Setsompop, K.
2018; 168: 101–18
- **Improved magnetic resonance fingerprinting reconstruction with low-rank and subspace modeling** *MAGNETIC RESONANCE IN MEDICINE*
Zhao, B., Setsompop, K., Adalsteinsson, E., Gagoski, B., Ye, H., Ma, D., Jiang, Y., Grant, P., Griswold, M. A., Wald, L. L.
2018; 79 (2): 933–42
- **Evaluation of SLIce Dithered Enhanced Resolution Simultaneous MultiSlice (SLIDER-SMS) for human fMRI** *NEUROIMAGE*
Vu, A. T., Beckett, A., Setsompop, K., Feinberg, D. A.
2018; 164: 164–71
- **High-resolution in vivo diffusion imaging of the human brain with generalized slice dithered enhanced resolution: Simultaneous multislice (gSlider-SMS)** *MAGNETIC RESONANCE IN MEDICINE*
Setsompop, K., Fan, Q., Stockmann, J., Bilgic, B., Huang, S., Cauley, S. F., Nummenmaa, A., Wang, F., Rathi, Y., Witzel, T., Wald, L. L.
2018; 79 (1): 141–51
- **Wave-CAIPI for highly accelerated MP-RAGE imaging** *MAGNETIC RESONANCE IN MEDICINE*
Polak, D., Setsompop, K., Cauley, S. F., Gagoski, B. A., Bhat, H., Maier, F., Bachert, P., Wald, L. L., Bilgic, B.
2018; 79 (1): 401–6
- **3D MR fingerprinting with accelerated stack-of-spirals and hybrid sliding-window and GRAPPA reconstruction** *NEUROIMAGE*
Liao, C., Bilgic, B., Manhard, M., Zhao, B., Cao, X., Zhong, J., Wald, L. L., Setsompop, K.
2017; 162: 13–22
- **Use of Pattern Recognition for Unaliasing Simultaneously Acquired Slices in Simultaneous Multislice MR Fingerprinting** *MAGNETIC RESONANCE IN MEDICINE*
Jiang, Y., Ma, D., Bhat, H., Ye, H., Cauley, S. F., Wald, L. L., Setsompop, K., Griswold, M. A.
2017; 78 (5): 1870–76
- **Advancing RF pulse design using an open-competition format: Report from the 2015 ISMRM challenge** *MAGNETIC RESONANCE IN MEDICINE*
Grissom, W. A., Setsompop, K., Hurley, S. A., Tsao, J., Velikina, J. V., Samsonov, A. A.
2017; 78 (4): 1352–61
- **Autocalibrated wave-CAIPI reconstruction; Joint optimization of k-space trajectory and parallel imaging reconstruction** *MAGNETIC RESONANCE IN MEDICINE*
Cauley, S. F., Setsompop, K., Bilgic, B., Bhat, H., Gagoski, B., Wald, L. L.
2017; 78 (3): 1093–99
- **New insights about time-varying diffusivity and its estimation from diffusion MRI** *MAGNETIC RESONANCE IN MEDICINE*
Ning, L., Setsompop, K., Westin, C., Rathi, Y.

2017; 78 (2): 763–74

- **Simultaneous Time Interleaved MultiSlice (STIMS) for Rapid Susceptibility Weighted acquisition** *NEUROIMAGE*
Bilgic, B., Ye, H., Wald, L. L., Setsompop, K.
2017; 155: 577–86
- **Simultaneous multislice magnetic resonance fingerprinting (SMS-MRF) with direct-spiral slice-GRAPPA (ds-SG) reconstruction** *MAGNETIC RESONANCE IN MEDICINE*
Ye, H., Cauley, S. F., Gagoski, B., Bilgic, B., Ma, D., Jiang, Y., Du, Y. P., Griswold, M. A., Wald, L. L., Setsompop, K.
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