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Publications

PUBLICATIONS

- **A Dynamic Shim Approach for Correcting Eddy Current Effects in Diffusion-Prepared MRI Acquisition Using a Multi-Coil AC/DC Shim-Array.** *Magnetic resonance in medicine*
Liao, C., Stockmann, J. P., Li, Z., Wang, Z., Gao, M., Craven-Brightman, L., Sliwiak, M., Biggs, C., Glad, J. A., Zhou, J., Qian, Y., Zhong, Z., Wang, et al
2026
- **Effects of diffusion MRI spatial resolution on human brain short-range association fiber reconstruction and structural connectivity estimation** *IMAGING NEUROSCIENCE*
Zheng, J., Li, Z., Zhong, W., Wang, Z., Li, Z., Yang, H., Liu, M., Cao, X., Liao, C., Salat, D. H., Huang, S. Y., Tian, Q.
2026; 4
- **Effects of diffusion MRI spatial resolution on human brain short-range association fiber reconstruction and structural connectivity estimation.** *Imaging neuroscience (Cambridge, Mass.)*
Zheng, J., Li, Z., Zhong, W., Wang, Z., Li, Z., Yang, H., Liu, M., Cao, X., Liao, C., Salat, D. H., Huang, S. Y., Tian, Q.
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- **In Vivo Meso-Scale Whole-Brain Quantitative Imaging With Tailored MRF on the NexGen 7T Scanner.** *Magnetic resonance in medicine*
Cao, X., Beckett, A., Liao, C., Walker, E., Zhu, Z., Qian, Y., Gao, M., Wang, N., Lin, Y., Gong, L., McCreedy, M. A., Wang, Z., Li, et al
2025
- **Stretched Radial Trajectory Design for Efficient MRI with Enhanced K-Space Coverage and Image Resolution.** *Bioengineering (Basel, Switzerland)*
Gong, L. S., Zhou, Z., Li, Q., Qian, Y., Yang, Y., Setsompop, K., Li, Z., Cao, X., Liao, C.
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- **Fast and reliable quantitative measures of white matter development with magnetic resonance fingerprinting** *IMAGING NEUROSCIENCE*
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Yablonski, M., Zhou, Z., Cao, X., Schauman, S., Liao, C., Setsompop, K., Yeatman, J. D.
2025; 3
- **Deep learning initialized compressed sensing (Deli-CS) in volumetric spatio-temporal subspace reconstruction.** *Magma (New York, N.Y.)*
Schauman, S. S., Iyer, S. S., Sandino, C. M., Yurt, M., Cao, X., Liao, C., Ruengchaijatuporn, N., Chatnuntaweck, I., Tong, E., Setsompop, K.
2025
- **Three-dimensional high-isotropic-resolution MR fingerprinting optimized for 0.55 T.** *Magnetic resonance in medicine*
Cao, X., Liao, C., Zhu, Z., Li, Z., Bhattacharjee, R., Nishimura, M., Wang, Z., Wang, N., Zhou, Z., Chen, Q., Abraham, D., Majumdar, S., Villanueva-Meyer, et al
2025
- **Spherical echo-planar time-resolved imaging (sEPTI) for rapid 3D quantitative T₂* and susceptibility imaging.** *Magnetic resonance in medicine*
Wang, N., Liao, C., Cao, X., Nishimura, M., Brackener, Y. W., Yurt, M., Gao, M., Abraham, D., Alkan, C., Iyer, S. S., Zhou, Z., Jeong, H., Kerr, et al

2024

- **Artificial intelligence for neuro MRI acquisition: a review.** *Magma (New York, N.Y.)*
Yang, H., Wang, G., Li, Z., Li, H., Zheng, J., Hu, Y., Cao, X., Liao, C., Ye, H., Tian, Q.
2024
- **High-Fidelity Intravoxel Incoherent Motion Parameter Mapping Using Locally Low-Rank and Subspace Modeling.** *NeuroImage*
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- **Pre-excitation gradients for eddy current nulled convex optimized diffusion encoding (Pre-ENCODE).** *Magnetic resonance in medicine*
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- **Rapid and accurate navigators for motion and B0 tracking using QUEEN: Quantitatively enhanced parameter estimation from navigators.** *Magnetic resonance in medicine*
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- **Polynomial Preconditioners for Regularized Linear Inverse Problems.** *SIAM Journal on Imaging Sciences*
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- **High-resolution myelin-water fraction and quantitative relaxation mapping using 3D ViSta-MR fingerprinting.** *Magnetic resonance in medicine*
Liao, C., Cao, X., Iyer, S. S., Schauman, S., Zhou, Z., Yan, X., Chen, Q., Li, Z., Wang, N., Gong, T., Wu, Z., He, H., Zhong, et al
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- **High-fidelity mesoscale in-vivo diffusion MRI through gSlider-BUDA and circular EPI with S-LORAKS reconstruction.** *NeuroImage*
Liao, C., Yarach, U., Cao, X., Iyer, S. S., Wang, N., Kim, T. H., Tian, Q., Bilgic, B., Kerr, A. B., Setsompop, K.
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- **Deep Learning Initialized Compressed Sensing (Deli-CS) in Volumetric Spatio-Temporal Subspace Reconstruction.** *bioRxiv : the preprint server for biology*
Iyer, S. S., Schauman, S. S., Sandino, C. M., Yurt, M., Cao, X., Liao, C., Ruengchaijatuporn, N., Chatnuntaweck, I., Tong, E., Setsompop, K.
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- **3D-EPI blip-up/down acquisition (BUDA) with CAIPI and joint Hankel structured low-rank reconstruction for rapid distortion-free high-resolution T2* mapping.** *Magnetic resonance in medicine*
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- **Optimized three-dimensional ultrashort echo time: Magnetic resonance fingerprinting for myelin tissue fraction mapping.** *Human brain mapping*
Zhou, Z., Li, Q., Liao, C., Cao, X., Liang, H., Chen, Q., Pu, R., Ye, H., Tong, Q., He, H., Zhong, J.
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- **Blip up-down acquisition for spin- and gradient-echo imaging (BUDA-SAGE) with self-supervised denoising enables efficient T2 , T2 * , para- and dia-magnetic susceptibility mapping.** *Magnetic resonance in medicine*
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