List of Publications by Year in descending order

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LESUE VINC

| # | Article | IF | CITATIONS |
|----|--|-----|-----------|
| 1 | Accelerating magnetic resonance imaging via deep learning. , 2016, 2016, 514-517. | | 455 |
| 2 | Accelerating SENSE using compressed sensing. Magnetic Resonance in Medicine, 2009, 62, 1574-1584. | 1.9 | 369 |
| 3 | Deep Magnetic Resonance Image Reconstruction: Inverse Problems Meet Neural Networks. IEEE Signal Processing Magazine, 2020, 37, 141-151. | 4.6 | 218 |
| 4 | Joint image reconstruction and sensitivity estimation in SENSE (JSENSE). Magnetic Resonance in Medicine, 2007, 57, 1196-1202. | 1.9 | 213 |
| 5 | DeepcomplexMRI: Exploiting deep residual network for fast parallel MR imaging with complex convolution. Magnetic Resonance Imaging, 2020, 68, 136-147. | 1.0 | 120 |
| 6 | Compressed Sensing Dynamic Cardiac Cine MRI Using Learned Spatiotemporal Dictionary. IEEE Transactions on Biomedical Engineering, 2014, 61, 1109-1120. | 2.5 | 95 |
| 7 | Adaptive Dictionary Learning in Sparse Gradient Domain for Image Recovery. IEEE Transactions on Image Processing, 2013, 22, 4652-4663. | 6.0 | 90 |
| 8 | Sensitivity encoding reconstruction with nonlocal total variation regularization. Magnetic Resonance in Medicine, 2011, 65, 1384-1392. | 1.9 | 83 |
| 9 | <i>k</i> â€ <i>t</i> ISD: Dynamic cardiac MR imaging using compressed sensing with iterative support detection. Magnetic Resonance in Medicine, 2012, 68, 41-53. | 1.9 | 82 |
| 10 | Regularized sensitivity encoding (SENSE) reconstruction using bregman iterations. Magnetic Resonance in Medicine, 2009, 61, 145-152. | 1.9 | 73 |
| 11 | Compressed-sensing photoacoustic computed tomography in vivo with partially known support. Optics Express, 2012, 20, 16510. | 1.7 | 66 |
| 12 | Nonlinear GRAPPA: A kernel approach to parallel MRI reconstruction. Magnetic Resonance in Medicine, 2012, 68, 730-740. | 1.9 | 66 |
| 13 | Functional MRI in the assessment of cortical activation during gait-related imaginary tasks. Journal of Neural Transmission, 2009, 116, 1087-1092. | 1.4 | 64 |
| 14 | A Kernel-Based Low-Rank (KLR) Model for Low-Dimensional Manifold Recovery in Highly Accelerated Dynamic MRI. IEEE Transactions on Medical Imaging, 2017, 36, 2297-2307. | 5.4 | 59 |
| 15 | Parallel MRI Using Phased Array Coils. IEEE Signal Processing Magazine, 2010, 27, 90-98. | 4.6 | 57 |
| 16 | Learning Joint-Sparse Codes for Calibration-Free Parallel MR Imaging. IEEE Transactions on Medical Imaging, 2018, 37, 251-261. | 5.4 | 56 |
| 17 | DIMENSION: Dynamic MR imaging with both kâ€space and spatial prior knowledge obtained via multiâ€supervised network training. NMR in Biomedicine, 2022, 35, e4131. | 1.6 | 53 |
| 18 | Artificial Neural Network Enhanced Bayesian PET Image Reconstruction. IEEE Transactions on Medical Imaging, 2018, 37, 1297-1309. | 5.4 | 46 |

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|----|--|-----|-----------|
| 19 | Metabolomic Imaging for Human Prostate Cancer Detection. Science Translational Medicine, 2010, 2, 16ra8. | 5.8 | 44 |
| 20 | Accelerated MR diffusion tensor imaging using distributed compressed sensing. Magnetic Resonance in Medicine, 2014, 71, 763-772. | 1.9 | 43 |
| 21 | Accelerated exponential parameterization of T2 relaxation with modelâ€driven low rank and sparsity priors (MORASA). Magnetic Resonance in Medicine, 2016, 76, 1865-1878. | 1.9 | 43 |
| 22 | On Tikhonov regularization for image reconstruction in parallel MRI. , 2004, 2004, 1056-9. | | 41 |
| 23 | Learned Low-Rank Priors in Dynamic MR Imaging. IEEE Transactions on Medical Imaging, 2021, 40, 3698-3710. | 5.4 | 41 |
| 24 | A statistical approach to SENSE regularization with arbitrary <i>k</i> â€space trajectories. Magnetic Resonance in Medicine, 2008, 60, 414-421. | 1.9 | 40 |
| 25 | Toeplitz block matrices in compressed sensing and their applications in imaging. , 2008, , . | | 38 |
| 26 | Accelerating <i>t</i> _{1Ï} cartilage imaging using compressed sensing with iterative locally adapted support detection and JSENSE. Magnetic Resonance in Medicine, 2016, 75, 1617-1629. | 1.9 | 37 |
| 27 | Model Learning: Primal Dual Networks for Fast MR Imaging. Lecture Notes in Computer Science, 2019, , 21-29. | 1.0 | 33 |
| 28 | A New Deep Learning Network for Mitigating Limited-view and Under-sampling Artifacts in Ring-shaped Photoacoustic Tomography. Computerized Medical Imaging and Graphics, 2020, 84, 101720. | 3.5 | 32 |
| 29 | Deep low-Rank plus sparse network for dynamic MR imaging. Medical Image Analysis, 2021, 73, 102190. | 7.0 | 32 |
| 30 | Sparsity-constrained PET image reconstruction with learned dictionaries. Physics in Medicine and Biology, 2016, 61, 6347-6368. | 1.6 | 27 |
| 31 | Compressed-sensing Photoacoustic Imaging based on random optical illumination. International Journal of Functional Informatics and Personalised Medicine, 2009, 2, 394. | 0.4 | 26 |
| 32 | Sparse BLIP: BLind Iterative Parallel imaging reconstruction using compressed sensing. Magnetic Resonance in Medicine, 2014, 71, 645-660. | 1.9 | 26 |
| 33 | SuperDTI: Ultrafast DTI and fiber tractography with deep learning. Magnetic Resonance in Medicine, 2021, 86, 3334-3347. | 1.9 | 26 |
| 34 | Accelerating multicolor spectroscopic single-molecule localization microscopy using deep learning. Biomedical Optics Express, 2020, 11, 2705. | 1.5 | 26 |
| 35 | Sparsesense: Application of compressed sensing in parallel MRI. , 2008, , . | | 24 |
| 36 | An unsupervised deep learning method for multi-coil cine MRI. Physics in Medicine and Biology, 2020, 65, 235041. | 1.6 | 21 |

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| 37 | Improving GRAPPA using crossâ€sampled autocalibration data. Magnetic Resonance in Medicine, 2012, 67, 1042-1053. | 1.9 | 20 |
| 38 | Iterative feature refinement for accurate undersampled MR image reconstruction. Physics in Medicine and Biology, 2016, 61, 3291-3316. | 1.6 | 20 |
| 39 | Learning Data Consistency and its Application to Dynamic MR Imaging. IEEE Transactions on Medical Imaging, 2021, 40, 3140-3153. | 5.4 | 20 |
| 40 | Diagnostic interchangeability of deep convolutional neural networks reconstructed knee MR images: preliminary experience. Quantitative Imaging in Medicine and Surgery, 2020, 10, 1748-1762. | 1.1 | 19 |
| 41 | A new single acquisition, twoâ€image difference method for determining MR image SNR. Medical Physics, 2009, 36, 662-671. | 1.6 | 18 |
| 42 | Translational-invariant dictionaries for compressed sensing in magnetic resonance imaging. , 2011, , . | | 17 |
| 43 | Bi-Linear Modeling of Data Manifolds for Dynamic-MRI Recovery. IEEE Transactions on Medical Imaging, 2020, 39, 688-702. | 5.4 | 17 |
| 44 | Pseudo 2D random sampling for compressed sensing MRI. , 2009, 2009, 2672-5. | | 16 |
| 45 | Direct diffusion tensor estimation using a modelâ€based method with spatial and parametric constraints. Medical Physics, 2017, 44, 570-580. | 1.6 | 16 |
| 46 | Acceleration of three-dimensional diffusion magnetic resonance imaging using a kernel low-rank compressed sensing method. NeuroImage, 2020, 210, 116584. | 2.1 | 16 |
| 47 | Accelerating sensitivity encoding using Compressed Sensing. , 2008, 2008, 1667-70. | | 15 |
| 48 | SCOPE: signal compensation for low-rank plus sparse matrix decomposition for fast parameter mapping. Physics in Medicine and Biology, 2018, 63, 185009. | 1.6 | 15 |
| 49 | KerNL: Kernel-Based Nonlinear Approach to Parallel MRI Reconstruction. IEEE Transactions on Medical Imaging, 2019, 38, 312-321. | 5.4 | 15 |
| 50 | Bioâ€SCOPE: fast biexponential T _{1<i>Ï</i>} mapping of the brain using signalâ€compensated lowâ€rank plus sparse matrix decomposition. Magnetic Resonance in Medicine, 2020, 83, 2092-2106. | 1.9 | 15 |
| 51 | Toeplitz random encoding MR imaging using compressed sensing. , 2009, , . | | 14 |
| 52 | Undersampled dynamic magnetic resonance imaging using patch-based spatiotemporal dictionaries. , 2013, , . | | 14 |
| 53 | Blind sparse inpainting reveals cytoskeletal filaments with sub-Nyquist localization. Optica, 2017, 4, 1277. | 4.8 | 14 |
| 54 | Computational MRI: Compressive Sensing and Beyond [From the Guest Editors]. IEEE Signal Processing Magazine, 2020, 37, 21-23. | 4.6 | 14 |

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| 55 | Machine-learning based spectral classification for spectroscopic single-molecule localization microscopy. Optics Letters, 2019, 44, 5864. | 1.7 | 14 |
| 56 | Sparsity-based PET image reconstruction using MRI learned dictionaries. , 2014, , . | | 13 |
| 57 | Deep Manifold Learning for Dynamic MR Imaging. IEEE Transactions on Computational Imaging, 2021, 7, 1314-1327. | 2.6 | 13 |
| 58 | REGULARIZED SENSE RECONSTRUCTION USING ITERATIVELY REFINED TOTAL VARIATION METHOD. , 2007, , . | | 12 |
| 59 | Compressed-sensing dynamic MR imaging with partially known support. , 2010, 2010, 2829-32. | | 11 |
| 60 | Incorporating reference in parallel imaging and compressed sensing. Magnetic Resonance in Medicine, 2015, 73, 1490-1504. | 1.9 | 11 |
| 61 | Improved parallel image reconstruction using feature refinement. Magnetic Resonance in Medicine, 2018, 80, 211-223. | 1.9 | 11 |
| 62 | Truncation effects in SENSE reconstruction. Magnetic Resonance Imaging, 2006, 24, 1311-1318. | 1.0 | 10 |
| 63 | A kernel-based compressed sensing approach to dynamic MRI from highly undersampled data. , 2013, , . | | 10 |
| 64 | Fast GRAPPA reconstruction with random projection. Magnetic Resonance in Medicine, 2015, 74, 71-80. | 1.9 | 10 |
| 65 | Initial testing of a 3D printed perfusion phantom using digital subtraction angiography. , 2015, 9417, . | | 10 |
| 66 | Dynamic magnetic resonance imaging using compressed sensing with self-learned nonlinear dictionary (NL-D). , 2015, , . | | 10 |
| 67 | M-MRI: A manifold-based framework to highly accelerated dynamic magnetic resonance imaging. , 2017, 2017, 19-22. | | 10 |
| 68 | Tract-Based Spatial Statistics: Application to Mild Cognitive Impairment. BioMed Research International, 2014, 2014, 1-8. | 0.9 | 9 |
| 69 | Image reconstruction from phased-array data based on multichannel blind deconvolution. Magnetic Resonance Imaging, 2015, 33, 1106-1113. | 1.0 | 9 |
| 70 | Parallel Mri Reconstruction: A Filter-Bank Approach. , 2005, 2005, 1374-7. | | 8 |
| 71 | SENSE reconstruction with nonlocal TV regularization. , 2009, 2009, 1032-5. | | 8 |
| 72 | MLS: Joint manifold-learning and sparsity-aware framework for highly accelerated dynamic magnetic resonance imaging. , 2018, 2018, 1213-1216. | | 8 |

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| 73 | Accelerating MR parameter mapping using nonlinear manifold learning and supervised pre-imaging. , 2015, , . | | 7 |
| 74 | Accelerating MR Imaging via Deep Chambolle-Pock Network. , 2019, 2019, 6818-6821. | | 7 |
| 75 | Image reconstruction from phased-array MRI data based on multichannel blind deconvolution. , 2010, , | | 6 |
| 76 | A model-based method with joint sparsity constraint for direct diffusion tensor estimation. , 2012, , . | | 6 |
| 77 | Undersampled dynamic magnetic resonance imaging using kernel principal component analysis. , 2014, 2014, 1533-6. | | 6 |
| 78 | Coil-combined split slice-GRAPPA for simultaneous multi-slice diffusion MRI. Magnetic Resonance Imaging, 2020, 66, 9-21. | 1.0 | 6 |
| 79 | Multi-scale Unrolled Deep Learning Framework for Accelerated Magnetic Resonance Imaging. , 2020, 2020, 1056-1059. | | 6 |
| 80 | Determination of Fiber Orientation in MRI Diffusion Tensor Imaging Based on Higher-Order Tensor Decomposition. Annual International Conference of the IEEE Engineering in Medicine and Biology Society, 2007, 2007, 2065-8. | 0.5 | 5 |
| 81 | JOINT ESTIMATION OF IMAGE AND COIL SENSITIVITIES IN PARALLEL SPIRAL MRI. , 2007, , . | | 5 |
| 82 | k-t CSPI: A dynamic MRI reconstruction framework for combining compressed sensing and parallel imaging. , 2012, , . | | 5 |
| 83 | Three-dimensional hybrid-encoded MRI using compressed sensing. , 2012, , . | | 5 |
| 84 | Parallel imaging via sparse representation over a learned dictionary. , 2015, , . | | 5 |
| 85 | Accelerating dynamic magnetic resonance imaging by nonlinear sparse coding. , 2016, 2016, 510-513. | | 5 |
| 86 | Modified GAN Augmentation Algorithms for the MRI-Classification of Myocardial Scar Tissue in Ischemic Cardiomyopathy. Frontiers in Cardiovascular Medicine, 2021, 8, 726943. | 1,1 | 5 |
| 87 | Improved spiral sense reconstruction using a multiscale wavelet model. , 2008, , . | | 4 |
| 88 | Ultrasound image de-noising through Karhunen-Loeve (K-L) transformwith overlapping segments. , 2009, , . | | 4 |
| 89 | Noise behavior of MR brain reconstructions using compressed sensing. , 2013, 2013, 5155-8. | | 4 |

Accurate T2 mapping with sparsity and linear predictability filtering. , 2014, , .

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| 91 | Improved gradientâ€echo 3D magnetic resonance imaging using compressed sensing and Toeplitz encoding with phaseâ€scrambled RF excitation. Medical Physics, 2020, 47, 1579-1589. | 1.6 | 4 |
| 92 | A 4â€minute solution for submillimeter wholeâ€brain T 1ï•quantification. Magnetic Resonance in Medicine, 2021, 85, 3299-3307. | 1.9 | 4 |
| 93 | Accelerating 3D single-molecule localization microscopy using blind sparse inpainting. Journal of Biomedical Optics, 2021, 26, . | 1.4 | 4 |
| 94 | Accelerating the 3D T1ϕmapping of cartilage using a signal-compensated robust tensor principal component analysis model. Quantitative Imaging in Medicine and Surgery, 2021, 11, 3376-3391. | 1.1 | 4 |
| 95 | Integrating Parallel Imaging with Generalized Series for Accelerated Dynamic Imaging. , 2005, 2005, 1434-7. | | 3 |
| 96 | Parallel MRI Acceleration Using M-FOCUSS. , 2009, , . | | 3 |
| 97 | Improved self-calibrated spiral parallel imaging using JSENSE. Medical Engineering and Physics, 2009, 31, 510-514. | 0.8 | 3 |
| 98 | Linear transformations and Restricted Isometry Property. , 2009, , . | | 3 |
| 99 | A kernel approach to parallel MRI reconstruction. , 2011, , . | | 3 |
| 100 | K-T ISD: Compressed sensing with iterative support detection for dynamic MRI. , 2011, , . | | 3 |
| 101 | A hybrid total-variation minimization approach to compressed sensing. , 2012, , . | | 3 |
| 102 | Highly accelerated 3D dynamic contrast enhanced MRI from sparse spiral sampling using integrated partial separability model and JSENSE. Proceedings of SPIE, 2014, , . | 0.8 | 3 |
| 103 | SecSAKE. , 2018, , . | | 3 |
| 104 | Multi-Contrast Mr Reconstruction with Enhanced Denoising Autoencoder Prior Learning. , 2020, , . | | 3 |
| 105 | An Efficient Non-Iterative Reconstruction Algorithm for Parallel MRI with Arbitrary K-Space Trajectories. , 2005, 2005, 1344-7. | | 2 |
| 106 | Efficient GRAPPA reconstruction using random projection. , 2013, , . | | 2 |
| 107 | Enabling high-speed wide-field dynamic imaging in multifocal photoacoustic computed microscopy: a simulation study. Applied Optics, 2016, 55, 3724. | 2.1 | 2 |
| 108 | Simultaneous image reconstruction and sensitivity estimation in parallel MRI using blind compressed sensing. , 2012, , . | | 1 |

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| 109 | A kernel approach to compressed sensing parallel MRI. , 2012, , . | | 1 |
| 110 | Conflict-cost based random sampling design for parallel MRI with low rank constraints. , 2015, , . | | 1 |
| 111 | Recovery of parametric manifold from reduced measurements: Application to magnetic resonance parameter mapping. , 2015, , . | | 1 |
| 112 | Highly accelerated cardiac cine parallel MRI using low-rank matrix completion and partial separability model. Proceedings of SPIE, 2016, , . | 0.8 | 1 |
| 113 | Enhancing Bayesian PET image reconstruction using neural networks. , 2017, , . | | 1 |
| 114 | Bi-Linear modeling of manifold-data geometry for Dynamic-MRI recovery. , 2017, 2017, . | | 1 |
| 115 | Improving image reconstructions for simultaneous multi-slice readout-segmented diffusion MRI data with phase errors. , 2018, , . | | 1 |
| 116 | Fast Calculation Method of Average G-Factor for Wave-CAIPI Imaging. , 2019, , . | | 1 |
| 117 | Kernel Bi-Linear Modeling for Reconstructing Data on Manifolds: The Dynamic-MRI Case. , 2021, , . | | 1 |
| 118 | Kernel Regression Imputation in Manifolds Via Bi-Linear Modeling: The Dynamic-MRI Case. IEEE Transactions on Computational Imaging, 2022, 8, 133-147. | 2.6 | 1 |
| 119 | Application of perceptual difference model (PDM) on regularization techniques of parallel MR imaging. , 2005, , . | | 0 |
| 120 | Joint Estimation of Coil Sensitivities and Image in Parallel Magnetic Resonance Imaging. Conference Record of the Asilomar Conference on Signals, Systems and Computers, 2007, , . | 0.0 | 0 |
| 121 | A variable projection approach to parallel magnetic resonance imaging. , 2008, , . | | 0 |
| 122 | Cross-sampled GRAPPA for parallel MRI. , 2010, 2010, 3325-8. | | 0 |
| 123 | An efficient augmented Lagrangian algorithm for graph regularized sparse coding in clustering. , 2013, , \cdot | | 0 |
| 124 | Highly accelerated dynamic contrast-enhanced MRI with temporal constrained reconstruction. , 2014, 2014, 2408-11. | | 0 |
| 125 | Improved myocardial perfusion PET imaging with MRI learned dictionaries. , 2014, , . | | 0 |
| 126 | Guest Editorial EMBC 2014. IEEE Journal of Biomedical and Health Informatics, 2015, 19, 1291-1292. | 3.9 | 0 |

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| 127 | Optimization of the image reconstruction procedure in multi-focal photoacoustic computed tomography. , 2016, , . | | 0 |
| 128 | A novel hybrid total variation minimization algorithm for compressed sensing. , 2017, , . | | 0 |
| 129 | Accelerated 3D Localization Microscopy Using Blind Sparse Inpainting. , 2019, , . | | 0 |