Michael Lustig

List of Publications by Year
in descending order

86 papers	12,879 citations	101543 36 h-index	62596 80 g-index
87 all docs	87 docs citations	87 times ranked	8912 citing authors

#	Article	IF	Citations
1	Implicit data crimes: Machine learning bias arising from misuse of public data. Proceedings of the National Academy of Sciences of the United States of America, 2022, 119, e2117203119.	7.1	37
2	High fidelity deep learningâ€based MRI reconstruction with instanceâ€wise discriminative feature matching loss. Magnetic Resonance in Medicine, 2022, 88, 476-491.	3.0	8
3	Quantitative anatomy mimicking slice phantoms. Magnetic Resonance in Medicine, 2021, 86, 1159-1166.	3.0	7
4	DiSpect: Displacement spectrum imaging of flow and tissue perfusion using spinâ€labeling and stimulated echoes. Magnetic Resonance in Medicine, 2021, 86, 2468-2481.	3.0	2
5	Vacuum Formed Coils for Magnetic Resonance Imaging. , 2021, , .		0
6	Iterative motionâ€compensation reconstruction ultraâ€short TE (iMoCo UTE) for highâ€resolution freeâ€breathing pulmonary MRI. Magnetic Resonance in Medicine, 2020, 83, 1208-1221.	3.0	52
7	Nearâ€silent distortionless DWI using magnetizationâ€prepared RUFIS. Magnetic Resonance in Medicine, 2020, 84, 170-181.	3.0	14
8	Accelerating Non-Cartesian MRI Reconstruction Convergence Using k-Space Preconditioning. IEEE Transactions on Medical Imaging, 2020, 39, 1646-1654.	8.9	15
9	Memory-Efficient Learning for Large-Scale Computational Imaging. IEEE Transactions on Computational Imaging, 2020, 6, 1403-1414.	4.4	39
10	SUREâ€based automatic parameter selection for ESPIRiT calibration. Magnetic Resonance in Medicine, 2020, 84, 3423-3437.	3.0	9
11	Computational MRI With Physics-Based Constraints: Application to Multicontrast and Quantitative Imaging. IEEE Signal Processing Magazine, 2020, 37, 94-104.	5.6	9
12	Extreme MRI: Largeâ€scale volumetric dynamic imaging from continuous nonâ€gated acquisitions. Magnetic Resonance in Medicine, 2020, 84, 1763-1780.	3.0	31
13	ENLIVE: An Efficient Nonlinear Method for Calibrationless and Robust Parallel Imaging. Scientific Reports, 2019, 9, 3034.	3.3	18
14	Evaluation of a Flexible 12-Channel Screen-printed Pediatric MRI Coil. Radiology, 2019, 291, 180-185.	7.3	35
15	Targeted rapid knee MRI exam using T₂ shuffling. Journal of Magnetic Resonance Imaging, 2019, 49, e195-e204.	3.4	13
16	Printed Receive Coils with High Acoustic Transparency for Magnetic Resonance Guided Focused Ultrasound. Scientific Reports, 2018, 8, 3392.	3.3	19
17	Node-Pore Coded Coincidence Correction: Coulter Counters, Code Design, and Sparse Deconvolution. IEEE Sensors Journal, 2018, 18, 3068-3079.	4.7	11
18	Phaseâ€encoded xSPEN: A novel highâ€resolution volumetric alternative to RARE MRI. Magnetic Resonance in Medicine, 2018, 80, 1492-1506.	3.0	17

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19	Simultaneous autoâ€calibration and gradient delays estimation (SAGE) in nonâ€Cartesian parallel MRI using lowâ€rank constraints. Magnetic Resonance in Medicine, 2018, 80, 2006-2016.	3.0	13
20	Multipleâ€coil kâ€space interpolation enhances resolution in singleâ€shot spatiotemporal MRI. Magnetic Resonance in Medicine, 2018, 79, 796-805.	3.0	16
21	Motion robust high resolution 3D freeâ€breathing pulmonary MRI using dynamic 3D image selfâ€navigator. Magnetic Resonance in Medicine, 2018, 79, 2954-2967.	3.0	53
22	General phase regularized reconstruction using phase cycling. Magnetic Resonance in Medicine, 2018, 80, 112-125.	3.0	28
23	Indigo: A Domain-Specific Language for Fast, Portable Image Reconstruction. , 2018, , .		3
24	Motion-resolved quantitative phase imaging. Biomedical Optics Express, 2018, 9, 5456.	2.9	11
25	Estimating absoluteâ€phase maps using ESPIRiT and virtual conjugate coils. Magnetic Resonance in Medicine, 2017, 77, 1201-1207.	3.0	20
26	T₂ shuffling: Sharp, multicontrast, volumetric fast spinâ€echo imaging. Magnetic Resonance in Medicine, 2017, 77, 180-195.	3.0	133
27	Comprehensive Multi-Dimensional MRI for the Simultaneous Assessment of Cardiopulmonary Anatomy and Physiology. Scientific Reports, 2017, 7, 5330.	3.3	36
28	Barker-Coded node-pore resistive pulse sensing with built-in coincidence correction. , 2017, 2017, 1053-1057.		13
29	Fast comprehensive singleâ€sequence fourâ€dimensional pediatric knee MRI with T₂ shuffling. Journal of Magnetic Resonance Imaging, 2017, 45, 1700-1711.	3.4	14
30	Materials and methods for higher performance screen-printed flexible MRI receive coils. Magnetic Resonance in Medicine, 2017, 78, 775-783.	3.0	32
31	Feasibility of ferumoxytolâ€enhanced neonatal and young infant cardiac MRI without general anesthesia. Journal of Magnetic Resonance Imaging, 2017, 45, 1407-1418.	3.4	31
32	The Empirical Effect of Gaussian Noise in Undersampled MRI Reconstruction. Tomography, 2017, 3, 211-221.	1.8	9
33	A semiflexible 64â€channel receiveâ€only phased array for pediatric body <scp>MRI</scp> at 3T. Magnetic Resonance in Medicine, 2016, 76, 1015-1021.	3.0	24
34	Comprehensive motionâ€compensated highly accelerated 4D flow MRI with ferumoxytol enhancement for pediatric congenital heart disease. Journal of Magnetic Resonance Imaging, 2016, 43, 1355-1368.	3.4	92
35	Development and testing of hyperpolarized 13C MR calibrationless parallel imaging. Journal of Magnetic Resonance, 2016, 262, 1-7.	2.1	17
36	Beyond low rank + sparse: Multi-scale low rank matrix decomposition. , 2016, , .		4

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37	Beyond Low Rank + Sparse: Multiscale Low Rank Matrix Decomposition. IEEE Journal on Selected Topics in Signal Processing, 2016, 10, 672-687.	10.8	42
38	Concentric rings Kâ€space trajectory for hyperpolarized ¹³C MR spectroscopic imaging. Magnetic Resonance in Medicine, 2016, 75, 19-31.	3.0	30
39	Rootâ€flipped multiband refocusing pulses. Magnetic Resonance in Medicine, 2016, 75, 227-237.	3.0	29
40	Screen-printed flexible MRI receive coils. Nature Communications, 2016, 7, 10839.	12.8	152
41	Multiband RF pulses with improved performance via convex optimization. Journal of Magnetic Resonance, 2016, 262, 81-90.	2.1	10
42	Imaging Renal Urea Handling in Rats at Millimeter Resolution Using Hyperpolarized Magnetic Resonance Relaxometry. Tomography, 2016, 2, 125-137.	1.8	31
43	Chemical shift separation with controlled aliasing for hyperpolarized ¹³C metabolic imaging. Magnetic Resonance in Medicine, 2015, 74, 978-989.	3.0	11
44	Fast pediatric 3D freeâ€breathing abdominal dynamic contrast enhanced MRI with high spatiotemporal resolution. Journal of Magnetic Resonance Imaging, 2015, 41, 460-473.	3.4	80
45	Free-breathing pediatric MRI with nonrigid motion correction and acceleration. Journal of Magnetic Resonance Imaging, 2015, 42, 407-420.	3.4	117
46	Improved quantification and mapping of anomalous pulmonary venous flow with fourâ€dimensional phaseâ€contrast MRI and interactive streamline rendering. Journal of Magnetic Resonance Imaging, 2015, 42, 1765-1776.	3.4	19
47	Inlet and outlet valve flow and regurgitant volume may be directly and reliably quantified with accelerated, volumetric phaseâ€contrast MRI. Journal of Magnetic Resonance Imaging, 2015, 41, 376-385.	3.4	48
48	Robust 4D flow denoising using divergenceâ€free wavelet transform. Magnetic Resonance in Medicine, 2015, 73, 828-842.	3.0	46
49	Parallel magnetic resonance imaging as approximation in a reproducing kernel Hilbert space. Inverse Problems, 2015, 31, 045008.	2.0	7
50	Clinical performance of a free-breathing spatiotemporally accelerated 3-D time-resolved contrast-enhanced pediatric abdominal MR angiography. Pediatric Radiology, 2015, 45, 1635-1643.	2.0	13
51	A Convex Formulation for Magnetic Particle Imaging X-Space Reconstruction. PLoS ONE, 2015, 10, e0140137.	2.5	33
52	Clinical performance of contrast enhanced abdominal pediatric MRI with fast combined parallel imaging compressed sensing reconstruction. Journal of Magnetic Resonance Imaging, 2014, 40, 13-25.	3.4	79
53	Calibrationless parallel imaging reconstruction based on structured low-rank matrix completion. Magnetic Resonance in Medicine, 2014, 72, 959-970.	3.0	286
54	ESPIRiTâ€”an eigenvalue approach to autocalibrating parallel MRI: Where SENSE meets GRAPPA. Magnetic Resonance in Medicine, 2014, 71, 990-1001.	3.0	864

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55	Three-dimensional magnetization-prepared imaging using a concentric cylinders trajectory. Magnetic Resonance in Medicine, 2014, 71, 1700-1710.	3.0	11
56	Rapid singleâ€breathâ€hold 3D late gadolinium enhancement cardiac MRI using a stackâ€ofâ€spirals acquisition. Journal of Magnetic Resonance Imaging, 2014, 40, 1496-1502.	3.4	26
57	Coil compression for accelerated imaging with Cartesian sampling. Magnetic Resonance in Medicine, 2013, 69, 571-582.	3.0	185
58	Venous and arterial flow quantification are equally accurate and precise with parallel imaging compressed sensing 4D phase contrast MRI. Journal of Magnetic Resonance Imaging, 2013, 37, 1419-1426.	3.4	82
59	Rapid Pediatric Cardiac Assessment of Flow and Ventricular Volume With Compressed Sensing Parallel Imaging Volumetric Cine Phase-Contrast MRI. American Journal of Roentgenology, 2012, 198, W250-W259.	2.2	92
60	Evaluation of Valvular Insufficiency and Shunts with Parallel-imaging Compressed-sensing 4D Phase-contrast MR Imaging with Stereoscopic 3D Velocity-fusion Volume-rendered Visualization. Radiology, 2012, 265, 87-95.	7.3	78
61	Fast ell_1-SPIRiT Compressed Sensing Parallel Imaging MRI: Scalable Parallel Implementation and Clinically Feasible Runtime. IEEE Transactions on Medical Imaging, 2012, 31, 1250-1262.	8.9	246
62	Nonrigid motion correction in 3D using autofocusing withlocalized linear translations. Magnetic Resonance in Medicine, 2012, 68, 1785-1797.	3.0	78
63	A method for simultaneous echo planar imaging of hyperpolarized 13C pyruvate and 13C lactate. Journal of Magnetic Resonance, 2012, 217, 41-47.	2.1	23
64	VERSEâ€guided numerical RF pulse design: A fast method for peak RF power control. Magnetic Resonance in Medicine, 2012, 67, 353-362.	3.0	11
65	VERSE-guided numerical RF pulse design: A fast method for peak RF power control. Magnetic Resonance in Medicine, 2012, 67, spcone-spcone.	3.0	0
66	Multi-Scale Dictionary Learning Using Wavelets. IEEE Journal on Selected Topics in Signal Processing, 2011, 5, 1014-1024.	10.8	136
67	Signal Compensation and Compressed Sensing for Magnetization-Prepared MR Angiography. IEEE Transactions on Medical Imaging, 2011, 30, 1017-1027.	8.9	34
68	Advances in pediatric body MRI. Pediatric Radiology, 2011, 41, 549-554.	2.0	47
69	Fast dynamic 3D MR spectroscopic imaging with compressed sensing and multiband excitation pulses for hyperpolarized ¹³C studies. Magnetic Resonance in Medicine, 2011, 65, 610-619.	3.0	181
70	3D compressed sensing for highly accelerated hyperpolarized ¹³C MRSI with in vivo applications to transgenic mouse models of cancer. Magnetic Resonance in Medicine, 2010, 63, 312-321.	3.0	126
71	Investigation of tumor hyperpolarized [1-¹³ C]-pyruvate dynamics using time-resolved multiband RF excitation echo-planar MRSI. Magnetic Resonance in Medicine, 2010, 63, 582-591.	3.0	85
72	SPIRiT: Iterative selfâ€consistent parallel imaging reconstruction from arbitrary kâ€space. Magnetic Resonance in Medicine, 2010, 64, 457-471.	3.0	641

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73	Reweighted â„“₁ referenceless PRF shift thermometry. Magnetic Resonance in Medicine, 2010, 64, 1068-1077.	3.0	42
74	Compressed sensing for chemical shiftâ€based waterâ€“fat separation. Magnetic Resonance in Medicine, 2010, 64, 1749-1759.	3.0	65
75	Improved Pediatric MR Imaging with Compressed Sensing. Radiology, 2010, 256, 607-616.	7.3	219
76	Hybrid referenceless and multibaseline subtraction MR thermometry for monitoring thermal therapies in moving organs. Medical Physics, 2010, 37, 5014-5026.	3.0	96
77	Regularized referenceless temperature estimation in PRF-shift MR thermometry. , 2009, , .		4
78	Improving nonâ€contrastâ€enhanced steadyâ€state free precession angiography with compressed sensing. Magnetic Resonance in Medicine, 2009, 61, 1122-1131.	3.0	55
79	Timeâ€optimal design for multidimensional and parallel transmit variableâ€rate selective excitation. Magnetic Resonance in Medicine, 2009, 61, 1471-1479.	3.0	33
80	Compressed sensing for resolution enhancement of hyperpolarized 13C flyback 3D-MRSI. Journal of Magnetic Resonance, 2008, 192, 258-264.	2.1	171
81	Pulse sequence for dynamic volumetric imaging of hyperpolarized metabolic products. Journal of Magnetic Resonance, 2008, 193, 139-146.	2.1	116
82	A fast method for designing time-optimal gradient waveforms for arbitrary k-space trajectories. IEEE Transactions on Medical Imaging, 2008, 27, 866-873.	8.9	101
83	Compressed Sensing MRI. IEEE Signal Processing Magazine, 2008, 25, 72-82.	5.6	1,596
84	An Efficient Method for Compressed Sensing. , 2007, , .		38
85	Sparse MRI: The application of compressed sensing for rapid MR imaging. Magnetic Resonance in Medicine, 2007, 58, 1182-1195.	3.0	5,406
86	Single breath-hold whole-heart MRA using variable-density spirals at 3t. Magnetic Resonance in Medicine, 2006, 55, 371-379.	3.0	68