

# Michael Lustig

## List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/11022320/publications.pdf>

Version: 2024-02-01

86  
papers

12,879  
citations

101384  
36  
h-index

62479  
80  
g-index

87  
all docs

87  
docs citations

87  
times ranked

8912  
citing authors

#	ARTICLE	IF	CITATIONS
1	Sparse MRI: The application of compressed sensing for rapid MR imaging. Magnetic Resonance in Medicine, 2007, 58, 1182-1195.	1.9	5,406
2	Compressed Sensing MRI. IEEE Signal Processing Magazine, 2008, 25, 72-82.	4.6	1,596
3	ESPIRiT—an eigenvalue approach to autocalibrating parallel MRI: Where SENSE meets GRAPPA. Magnetic Resonance in Medicine, 2014, 71, 990-1001.	1.9	864
4	SPIRiT: Iterative self-consistent parallel imaging reconstruction from arbitrary $k$ -space. Magnetic Resonance in Medicine, 2010, 64, 457-471.	1.9	641
5	Calibrationless parallel imaging reconstruction based on structured low-rank matrix completion. Magnetic Resonance in Medicine, 2014, 72, 959-970.	1.9	286
6	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.	5.4	246
7	Improved Pediatric MR Imaging with Compressed Sensing. Radiology, 2010, 256, 607-616.	3.6	219
8	Coil compression for accelerated imaging with Cartesian sampling. Magnetic Resonance in Medicine, 2013, 69, 571-582.	1.9	185
9	Fast dynamic 3D MR spectroscopic imaging with compressed sensing and multiband excitation pulses for hyperpolarized $^{13}\text{C}$ studies. Magnetic Resonance in Medicine, 2011, 65, 610-619.	1.9	181
10	Compressed sensing for resolution enhancement of hyperpolarized $^{13}\text{C}$ flyback 3D-MRSI. Journal of Magnetic Resonance, 2008, 192, 258-264.	1.2	171
11	Screen-printed flexible MRI receive coils. Nature Communications, 2016, 7, 10839.	5.8	152
12	Multi-Scale Dictionary Learning Using Wavelets. IEEE Journal on Selected Topics in Signal Processing, 2011, 5, 1014-1024.	7.3	136
13	$T_2^*$ shuffling: Sharp, multicontrast, volumetric fast spin-echo imaging. Magnetic Resonance in Medicine, 2017, 77, 180-195.	1.9	133
14	3D compressed sensing for highly accelerated hyperpolarized $^{13}\text{C}$ MRSI with in vivo applications to transgenic mouse models of cancer. Magnetic Resonance in Medicine, 2010, 63, 312-321.	1.9	126
15	Free-breathing pediatric MRI with nonrigid motion correction and acceleration. Journal of Magnetic Resonance Imaging, 2015, 42, 407-420.	1.9	117
16	Pulse sequence for dynamic volumetric imaging of hyperpolarized metabolic products. Journal of Magnetic Resonance, 2008, 193, 139-146.	1.2	116
17	A fast method for designing time-optimal gradient waveforms for arbitrary $k$ -space trajectories. IEEE Transactions on Medical Imaging, 2008, 27, 866-873.	5.4	101
18	Hybrid referenceless and multibaseline subtraction MR thermometry for monitoring thermal therapies in moving organs. Medical Physics, 2010, 37, 5014-5026.	1.6	96

#	ARTICLE	IF	CITATIONS
19	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.	1.0	92
20	Comprehensive motion-compensated highly accelerated 4D flow MRI with ferumoxytol enhancement for pediatric congenital heart disease. Journal of Magnetic Resonance Imaging, 2016, 43, 1355-1368.	1.9	92
21	Investigation of tumor hyperpolarized [ <sup>13</sup> C]-pyruvate dynamics using time-resolved multiband RF excitation echo-planar MRSI. Magnetic Resonance in Medicine, 2010, 63, 582-591.	1.9	85
22	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.	1.9	82
23	Fast pediatric 3D free-breathing abdominal dynamic contrast enhanced MRI with high spatiotemporal resolution. Journal of Magnetic Resonance Imaging, 2015, 41, 460-473.	1.9	80
24	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.	1.9	79
25	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.	3.6	78
26	Nonrigid motion correction in 3D using autofocusing with localized linear translations. Magnetic Resonance in Medicine, 2012, 68, 1785-1797.	1.9	78
27	Single breath-hold whole-heart MRA using variable-density spirals at 3t. Magnetic Resonance in Medicine, 2006, 55, 371-379.	1.9	68
28	Compressed sensing for chemical shift-based water-fat separation. Magnetic Resonance in Medicine, 2010, 64, 1749-1759.	1.9	65
29	Improving non-contrast-enhanced steady-state free precession angiography with compressed sensing. Magnetic Resonance in Medicine, 2009, 61, 1122-1131.	1.9	55
30	Motion robust high resolution 3D free-breathing pulmonary MRI using dynamic 3D image self-navigator. Magnetic Resonance in Medicine, 2018, 79, 2954-2967.	1.9	53
31	Iterative motion-compensation reconstruction ultra-short TE (iMoCo UTE) for high-resolution free-breathing pulmonary MRI. Magnetic Resonance in Medicine, 2020, 83, 1208-1221.	1.9	52
32	Inlet and outlet valve flow and regurgitant volume may be directly and reliably quantified with accelerated, volumetric phase-contrast MRI. Journal of Magnetic Resonance Imaging, 2015, 41, 376-385.	1.9	48
33	Advances in pediatric body MRI. Pediatric Radiology, 2011, 41, 549-554.	1.1	47
34	Robust 4D flow denoising using divergence-free wavelet transform. Magnetic Resonance in Medicine, 2015, 73, 828-842.	1.9	46
35	Rewighted $\lambda_1$ referenceless PRF shift thermometry. Magnetic Resonance in Medicine, 2010, 64, 1068-1077.	1.9	42
36	Beyond Low Rank + Sparse: Multiscale Low Rank Matrix Decomposition. IEEE Journal on Selected Topics in Signal Processing, 2016, 10, 672-687.	7.3	42

#	ARTICLE	IF	CITATIONS
37	Memory-Efficient Learning for Large-Scale Computational Imaging. IEEE Transactions on Computational Imaging, 2020, 6, 1403-1414.	2.6	39
38	An Efficient Method for Compressed Sensing. , 2007, , .		38
39	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.	3.3	37
40	Comprehensive Multi-Dimensional MRI for the Simultaneous Assessment of Cardiopulmonary Anatomy and Physiology. Scientific Reports, 2017, 7, 5330.	1.6	36
41	Evaluation of a Flexible 12-Channel Screen-printed Pediatric MRI Coil. Radiology, 2019, 291, 180-185.	3.6	35
42	Signal Compensation and Compressed Sensing for Magnetization-Prepared MR Angiography. IEEE Transactions on Medical Imaging, 2011, 30, 1017-1027.	5.4	34
43	Time-Optimal design for multidimensional and parallel transmit variable-rate selective excitation. Magnetic Resonance in Medicine, 2009, 61, 1471-1479.	1.9	33
44	A Convex Formulation for Magnetic Particle Imaging X-Space Reconstruction. PLoS ONE, 2015, 10, e0140137.	1.1	33
45	Materials and methods for higher performance screen-printed flexible MRI receive coils. Magnetic Resonance in Medicine, 2017, 78, 775-783.	1.9	32
46	Feasibility of ferumoxytol-enhanced neonatal and young infant cardiac MRI without general anesthesia. Journal of Magnetic Resonance Imaging, 2017, 45, 1407-1418.	1.9	31
47	Extreme MRI: Large-scale volumetric dynamic imaging from continuous non-gated acquisitions. Magnetic Resonance in Medicine, 2020, 84, 1763-1780.	1.9	31
48	Imaging Renal Urea Handling in Rats at Millimeter Resolution Using Hyperpolarized Magnetic Resonance Relaxometry. Tomography, 2016, 2, 125-137.	0.8	31
49	Concentric rings K-space trajectory for hyperpolarized <sup>13</sup> C MR spectroscopic imaging. Magnetic Resonance in Medicine, 2016, 75, 19-31.	1.9	30
50	Root-flipped multiband refocusing pulses. Magnetic Resonance in Medicine, 2016, 75, 227-237.	1.9	29
51	General phase regularized reconstruction using phase cycling. Magnetic Resonance in Medicine, 2018, 80, 112-125.	1.9	28
52	Rapid single-breath-hold 3D late gadolinium enhancement cardiac MRI using a stack-of-spirals acquisition. Journal of Magnetic Resonance Imaging, 2014, 40, 1496-1502.	1.9	26
53	A semiflexible 64-channel receive-only phased array for pediatric body MRI at 3T. Magnetic Resonance in Medicine, 2016, 76, 1015-1021.	1.9	24
54	A method for simultaneous echo planar imaging of hyperpolarized <sup>13</sup> C pyruvate and <sup>13</sup> C lactate. Journal of Magnetic Resonance, 2012, 217, 41-47.	1.2	23

#	ARTICLE	IF	CITATIONS
55	Estimating absolute phase maps using ESPIRiT and virtual conjugate coils. Magnetic Resonance in Medicine, 2017, 77, 1201-1207.	1.9	20
56	Improved quantification and mapping of anomalous pulmonary venous flow with four-dimensional phase-contrast MRI and interactive streamline rendering. Journal of Magnetic Resonance Imaging, 2015, 42, 1765-1776.	1.9	19
57	Printed Receive Coils with High Acoustic Transparency for Magnetic Resonance Guided Focused Ultrasound. Scientific Reports, 2018, 8, 3392.	1.6	19
58	ENLIVE: An Efficient Nonlinear Method for Calibrationless and Robust Parallel Imaging. Scientific Reports, 2019, 9, 3034.	1.6	18
59	Development and testing of hyperpolarized $^{13}\text{C}$ MR calibrationless parallel imaging. Journal of Magnetic Resonance, 2016, 262, 1-7.	1.2	17
60	Phase-encoded xSPEN: A novel high-resolution volumetric alternative to RARE MRI. Magnetic Resonance in Medicine, 2018, 80, 1492-1506.	1.9	17
61	Multiple-coil $k$ -space interpolation enhances resolution in single-shot spatiotemporal MRI. Magnetic Resonance in Medicine, 2018, 79, 796-805.	1.9	16
62	Accelerating Non-Cartesian MRI Reconstruction Convergence Using $k$ -Space Preconditioning. IEEE Transactions on Medical Imaging, 2020, 39, 1646-1654.	5.4	15
63	Fast comprehensive single-sequence four-dimensional pediatric knee MRI with $T_2^*$ shuffling. Journal of Magnetic Resonance Imaging, 2017, 45, 1700-1711.	1.9	14
64	Near-silent distortionless DWI using magnetization-prepared RUFIS. Magnetic Resonance in Medicine, 2020, 84, 170-181.	1.9	14
65	Clinical performance of a free-breathing spatiotemporally accelerated 3-D time-resolved contrast-enhanced pediatric abdominal MR angiography. Pediatric Radiology, 2015, 45, 1635-1643.	1.1	13
66	Barker-Coded node-pore resistive pulse sensing with built-in coincidence correction. , 2017, 2017, 1053-1057.		13
67	Simultaneous auto-calibration and gradient delays estimation (SAGE) in non-Cartesian parallel MRI using low-rank constraints. Magnetic Resonance in Medicine, 2018, 80, 2006-2016.	1.9	13
68	Targeted rapid knee MRI exam using $T_2^*$ shuffling. Journal of Magnetic Resonance Imaging, 2019, 49, e195-e204.	1.9	13
69	VERSE-guided numerical RF pulse design: A fast method for peak RF power control. Magnetic Resonance in Medicine, 2012, 67, 353-362.	1.9	11
70	Three-dimensional magnetization-prepared imaging using a concentric cylinders trajectory. Magnetic Resonance in Medicine, 2014, 71, 1700-1710.	1.9	11
71	Chemical shift separation with controlled aliasing for hyperpolarized $^{13}\text{C}$ metabolic imaging. Magnetic Resonance in Medicine, 2015, 74, 978-989.	1.9	11
72	Node-Pore Coded Coincidence Correction: Coulter Counters, Code Design, and Sparse Deconvolution. IEEE Sensors Journal, 2018, 18, 3068-3079.	2.4	11

#	ARTICLE	IF	CITATIONS
73	Motion-resolved quantitative phase imaging. Biomedical Optics Express, 2018, 9, 5456.	1.5	11
74	Multiband RF pulses with improved performance via convex optimization. Journal of Magnetic Resonance, 2016, 262, 81-90.	1.2	10
75	SURE-based automatic parameter selection for ESPIRiT calibration. Magnetic Resonance in Medicine, 2020, 84, 3423-3437.	1.9	9
76	Computational MRI With Physics-Based Constraints: Application to Multicontrast and Quantitative Imaging. IEEE Signal Processing Magazine, 2020, 37, 94-104.	4.6	9
77	The Empirical Effect of Gaussian Noise in Undersampled MRI Reconstruction. Tomography, 2017, 3, 211-221.	0.8	9
78	High fidelity deep learning-based MRI reconstruction with instance-wise discriminative feature matching loss. Magnetic Resonance in Medicine, 2022, 88, 476-491.	1.9	8
79	Parallel magnetic resonance imaging as approximation in a reproducing kernel Hilbert space. Inverse Problems, 2015, 31, 045008.	1.0	7
80	Quantitative anatomy mimicking slice phantoms. Magnetic Resonance in Medicine, 2021, 86, 1159-1166.	1.9	7
81	Regularized referenceless temperature estimation in PRF-shift MR thermometry. , 2009, , .		4
82	Beyond low rank + sparse: Multi-scale low rank matrix decomposition. , 2016, , .		4
83	Indigo: A Domain-Specific Language for Fast, Portable Image Reconstruction. , 2018, , .		3
84	DiSpect: Displacement spectrum imaging of flow and tissue perfusion using spin-labeling and stimulated echoes. Magnetic Resonance in Medicine, 2021, 86, 2468-2481.	1.9	2
85	VERSE-guided numerical RF pulse design: A fast method for peak RF power control. Magnetic Resonance in Medicine, 2012, 67, spcone-spcone.	1.9	0
86	Vacuum Formed Coils for Magnetic Resonance Imaging. , 2021, , .		0