John M Pauly

List of Publications by Year
in descending order

113 papers	13,519 citations	50276 46 h-index	27406 106 g-index
114 all docs	114 docs citations	114 times ranked	9656 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.	3.0	5,406
2	ESPIRiT—an eigenvalue approach to autocalibrating parallel MRI: Where SENSE meets GRAPPA. Magnetic Resonance in Medicine, 2014, 71, 990-1001.	3.0	864
3	SPIRiT: Iterative self-consistent parallel imaging reconstruction from arbitrary k-space. Magnetic Resonance in Medicine, 2010, 64, 457-471.	3.0	641
4	Deep Generative Adversarial Neural Networks for Compressive Sensing MRI. IEEE Transactions on Medical Imaging, 2019, 38, 167-179.	8.9	373
5	Hyperpolarized 13C MRI: Path to Clinical Translation in Oncology. Neoplasia, 2019, 21, 1-16.	5.3	316
6	Real-time interactive MRI on a conventional scanner. Magnetic Resonance in Medicine, 1997, 38, 355-367.	3.0	226
7	Deep learning enables reduced gadolinium dose for contrast-enhanced brain MRI. Journal of Magnetic Resonance Imaging, 2018, 48, 330-340.	3.4	220
8	Improved Pediatric MR Imaging with Compressed Sensing. Radiology, 2010, 256, 607-616.	7.3	219
9	Diffusion-weighted interleaved echo-planar imaging with a pair of orthogonal navigator echoes. Magnetic Resonance in Medicine, 1996, 35, 763-770.	3.0	216
10	Deblurring for non-2D fourier transform magnetic resonance imaging. Magnetic Resonance in Medicine, 1992, 25, 319-333.	3.0	207
11	Ultra–Low-Dose ^{18}F-Florbetaben Amyloid PET Imaging Using Deep Learning with Multi-Contrast MRI Inputs. Radiology, 2019, 290, 649-656.	7.3	182
12	MR angiography by selective inversion recovery. Magnetic Resonance in Medicine, 1987, 4, 193-202.	3.0	167
13	Characterization and reduction of the transient response in steady-state MR imaging. Magnetic Resonance in Medicine, 2001, 46, 149-158.	3.0	162
14	Multifrequency interpolation for fast off-resonance correction. Magnetic Resonance in Medicine, 1997, 37, 785-792.	3.0	155
15	On the nature and reduction of the displacement artifact in flow images. Magnetic Resonance in Medicine, 1991, 22, 481-492.	3.0	131
16	Magnetic resonance fluoroscopy using spirals with variable sampling densities. Magnetic Resonance in Medicine, 1995, 34, 388-394.	3.0	130
17	Linear combination steady-state free precession MRI. Magnetic Resonance in Medicine, 2000, 43, 82-90.	3.0	129
18	MR Spectroscopic imaging of collagen: Tendons and knee menisci. Magnetic Resonance in Medicine, 1995, 34, 647-654.	3.0	127

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19	Magnetic Resonance Angiography. IEEE Transactions on Medical Imaging, 1986, 5, 140-151.	8.9	124
20	Ultra‐low‐dose PET reconstruction using generative adversarial network with feature matching and task‐specific perceptual loss. Medical Physics, 2019, 46, 3555-3564.	3.0	121
21	Compressed Sensing: From Research to Clinical Practice With Deep Neural Networks: Shortening Scan Times for Magnetic Resonance Imaging. IEEE Signal Processing Magazine, 2020, 37, 117-127.	5.6	121
22	Free-breathing pediatric MRI with nonrigid motion correction and acceleration. Journal of Magnetic Resonance Imaging, 2015, 42, 407-420.	3.4	117
23	ISLES 2016 and 2017-Benchmarking Ischemic Stroke Lesion Outcome Prediction Based on Multispectral MRI. Frontiers in Neurology, 2018, 9, 679.	2.4	117
24	Boron-11 imaging with a three-dimensional reconstruction method. Journal of Magnetic Resonance Imaging, 1992, 2, 47-52.	3.4	115
25	Quantitative susceptibility mapping using deep neural network: QSMnet. NeuroImage, 2018, 179, 199-206.	4.2	115
26	Real-time color flow MRI. Magnetic Resonance in Medicine, 2000, 43, 251-258.	3.0	105
27	Dualband spectral‐spatial RF pulses for prostate MR spectroscopic imaging. Magnetic Resonance in Medicine, 2001, 46, 1079-1087.	3.0	103
28	Lipid-suppressed single-and multisection proton spectroscopic imaging of the human brain. Journal of Magnetic Resonance Imaging, 1992, 2, 253-262.	3.4	97
29	Variable-Density Single-Shot Fast Spin-Echo MRI with Deep Learning Reconstruction by Using Variational Networks. Radiology, 2018, 289, 366-373.	7.3	93
30	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.	3.4	92
31	MR imaging of articular cartilage using driven equilibrium. Magnetic Resonance in Medicine, 1999, 42, 695-703.	3.0	91
32	Characterization of atherosclerosis with a 1.5-T imaging system. Journal of Magnetic Resonance Imaging, 1993, 3, 399-407.	3.4	84
33	Fluctuating equilibrium MRI. Magnetic Resonance in Medicine, 1999, 42, 876-883.	3.0	84
34	Design of practicalT2-selective RF excitation (TELEX) pulses. Magnetic Resonance in Medicine, 1998, 40, 890-899.	3.0	80
35	Fast pediatric 3D free‐breathing abdominal dynamic contrast enhanced MRI with high spatiotemporal resolution. Journal of Magnetic Resonance Imaging, 2015, 41, 460-473.	3.4	80
36	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

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37	Improved solvent suppression and increased spatial excitation bandwidths for three-dimensional press CSI using phase-compensating spectral/spatial spin-echo pulses. Journal of Magnetic Resonance Imaging, 1997, 7, 745-757.	3.4	71
38	Background suppression with multiple inversion recovery nulling: Applications to projective angiography. Magnetic Resonance in Medicine, 1997, 37, 898-905.	3.0	71
39	Temperature mapping of frozen tissue using eddy current compensated half excitation RF pulses. Magnetic Resonance in Medicine, 2001, 46, 985-992.	3.0	65
40	Improved automatic off-resonance correction without a field map in spiral imaging. Magnetic Resonance in Medicine, 1997, 37, 906-913.	3.0	61
41	Consistent fat suppression with compensated spectral-spatial pulses. Magnetic Resonance in Medicine, 1997, 38, 198-206.	3.0	58
42	Analysis of deep complexâ€valued convolutional neural networks for MRI reconstruction and phaseâ€focused applications. Magnetic Resonance in Medicine, 2021, 86, 1093-1109.	3.0	58
43	Uncertainty Quantification in Deep MRI Reconstruction. IEEE Transactions on Medical Imaging, 2021, 40, 239-250.	8.9	54
44	Temperature quantitation and mapping of frozen tissue. Journal of Magnetic Resonance Imaging, 2001, 13, 99-104.	3.4	53
45	Considerations of magnetic resonance angiography by selective inversion recovery. Magnetic Resonance in Medicine, 1988, 7, 472-484.	3.0	52
46	Echo-planar spin-echo and inversion pulses. Magnetic Resonance in Medicine, 1993, 29, 776-782.	3.0	50
47	Angiographic Imaging with 2D RF Pulses. Magnetic Resonance in Medicine, 1997, 37, 260-267.	3.0	49
48	Technique development of 3D dynamic CSâ€EPSI for hyperpolarized ^{13}C pyruvate MR molecular imaging of human prostate cancer. Magnetic Resonance in Medicine, 2018, 80, 2062-2072.	3.0	47
49	Controlling radiofrequency-induced currents in guidewires using parallel transmit. Magnetic Resonance in Medicine, 2015, 74, 1790-1802.	3.0	45
50	Multi-Domain Image Completion for Random Missing Input Data. IEEE Transactions on Medical Imaging, 2021, 40, 1113-1122.	8.9	43
51	Rapid compressed sensing reconstruction of 3D nonâ€Cartesian MRI. Magnetic Resonance in Medicine, 2018, 79, 2685-2692.	3.0	42
52	ShortTE phosphorus spectroscopy using a spin-echo pulse. Magnetic Resonance in Medicine, 1994, 32, 98-103.	3.0	38
53	Improved cortical bone specificity in UTE MR Imaging. Magnetic Resonance in Medicine, 2017, 77, 684-695.	3.0	37
54	Interactive coronary MRI. Magnetic Resonance in Medicine, 1998, 40, 105-111.	3.0	36

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55	Comprehensive Multi-Dimensional MRI for the Simultaneous Assessment of Cardiopulmonary Anatomy and Physiology. Scientific Reports, 2017, 7, 5330.	3.3	36
56	Wasserstein GANs for MR Imaging: From Paired to Unpaired Training. IEEE Transactions on Medical Imaging, 2021, 40, 105-115.	8.9	36
57	NeRP: Implicit Neural Representation Learning With Prior Embedding for Sparsely Sampled Image Reconstruction. IEEE Transactions on Neural Networks and Learning Systems, 2024, 35, 770-782.	11.3	36
58	Ultra-short echo-time 2D time-of-flight MR angiography using a half-pulse excitation. Magnetic Resonance in Medicine, 1999, 41, 591-599.	3.0	35
59	Evaluation of a Flexible 12-Channel Screen-printed Pediatric MRI Coil. Radiology, 2019, 291, 180-185.	7.3	35
60	Robust selfâ€navigated body <scp>MRI</scp> using dense coil arrays. Magnetic Resonance in Medicine, 2016, 76, 197-205.	3.0	34
61	Spiral imaging on a small-bore system at 4.7t. Magnetic Resonance in Medicine, 1995, 34, 580-585.	3.0	33
62	Real-time interactive coronary MRA. Magnetic Resonance in Medicine, 2001, 46, 430-435.	3.0	33
63	Two-dimensional selective adiabatic pulses. Magnetic Resonance in Medicine, 1992, 24, 302-313.	3.0	31
64	Synthesize High-Quality Multi-Contrast Magnetic Resonance Imaging From Multi-Echo Acquisition Using Multi-Task Deep Generative Model. IEEE Transactions on Medical Imaging, 2020, 39, 3089-3099.	8.9	31
65	A Practical Acceleration Algorithm for Real-Time Imaging. IEEE Transactions on Medical Imaging, 2009, 28, 2042-2051.	8.9	29
66	Reducing flow artifacts in echo-planar imaging. Magnetic Resonance in Medicine, 1997, 37, 436-447.	3.0	27
67	Spectrally selective threeâ€dimensional dynamic balanced steadyâ€state free precession for hyperpolarized <scp>C</scp>â€13 metabolic imaging with spectrally selective radiofrequency pulses. Magnetic Resonance in Medicine, 2017, 78, 963-975.	3.0	26
68	Spatially resolved and localized real-time velocity distribution. Magnetic Resonance in Medicine, 1993, 30, 207-212.	3.0	25
69	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
70	Localized real-time velocity spectra determination. Magnetic Resonance in Medicine, 1993, 30, 393-398.	3.0	23
71	Real-time black-blood MRI using spatial presaturation. Journal of Magnetic Resonance Imaging, 2001, 13, 807-812.	3.4	22
72	Rapid ventricular assessment using real-time interactive multislice MRI. Magnetic Resonance in Medicine, 2001, 45, 371-375.	3.0	22

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73	T1Ï•Dispersion in Articular Cartilage. Cartilage, 2015, 6, 113-122.	2.7	21
74	Dataâ€driven selfâ€calibration and reconstruction for nonâ€cartesian waveâ€encoded singleâ€shot fast spin echo using deep learning. Journal of Magnetic Resonance Imaging, 2020, 51, 841-853.	3.4	20
75	RARE spiralT2-weighted imaging. Magnetic Resonance in Medicine, 1997, 37, 582-590.	3.0	18
76	Resolving phase ambiguity in dualâ€echo dixon imaging using a projected power method. Magnetic Resonance in Medicine, 2017, 77, 2066-2076.	3.0	18
77	Development and testing of hyperpolarized 13C MR calibrationless parallel imaging. Journal of Magnetic Resonance, 2016, 262, 1-7.	2.1	17
78	Automatically Determining the Confocal Parameters From OCT B-Scans for Quantification of the Attenuation Coefficients. IEEE Transactions on Medical Imaging, 2019, 38, 261-268.	8.9	16
79	Deep residual network for offâ€resonance artifact correction with application to pediatric body MRA with 3D cones. Magnetic Resonance in Medicine, 2019, 82, 1398-1411.	3.0	16
80	An RFâ€gated wireless power transfer system for wireless MRI receive arrays. Concepts in Magnetic Resonance Part B, 2017, 47B, .	0.7	15
81	An MRI Compatible RF MEMs Controlled Wireless Power Transfer System. IEEE Transactions on Microwave Theory and Techniques, 2019, 67, 1717-1726.	4.6	15
82	Diagnostic Image Quality Assessment and Classification in Medical Imaging: Opportunities and Challenges. , 2020, 2020, 337-340.		15
83	Attention-guided deep learning for gestational age prediction using fetal brain MRI. Scientific Reports, 2022, 12, 1408.	3.3	15
84	Nonsubtractive spiral phase contrast velocity imaging. Magnetic Resonance in Medicine, 1999, 42, 704-713.	3.0	14
85	Artifact- and content-specific quality assessment for MRI with image rulers. Medical Image Analysis, 2022, 77, 102344.	11.6	14
86	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
87	Selfâ€Calibrating Waveâ€Encoded Variableâ€Density Singleâ€Shot Fast Spin Echo Imaging. Journal of Magnetic Resonance Imaging, 2018, 47, 954-966.	3.4	13
88	Partial-FOV reconstruction in dynamic spiral imaging. Magnetic Resonance in Medicine, 2000, 43, 429-439.	3.0	12
89	Chemical shift separation with controlled aliasing for hyperpolarized ¹³C metabolic imaging. Magnetic Resonance in Medicine, 2015, 74, 978-989.	3.0	11
90	Twoâ€dimensional UTE overview imaging for dental application. Magnetic Resonance in Medicine, 2020, 84, 2616-2624.	3.0	11

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91	Fast variable density Poisson-disc sample generation with directional variation for compressed sensing in MRI. Magnetic Resonance Imaging, 2021, 77, 186-193.	1.8	11
92	Multiband RF pulses with improved performance via convex optimization. Journal of Magnetic Resonance, 2016, 262, 81-90.	2.1	10
93	Autocalibrating motion-corrected wave-encoding for highly accelerated free-breathing abdominal MRI. Magnetic Resonance in Medicine, 2017, 78, 1757-1766.	3.0	10
94	Noise Performance of a Precision Pulsed Electromagnet Power Supply for Magnetic Resonance Imaging. IEEE Transactions on Medical Imaging, 2008, 27, 75-86.	8.9	7
95	Body diffusion-weighted imaging using magnetization prepared single-shot fast spin echo and extended parallel imaging signal averaging. Magnetic Resonance in Medicine, 2018, 79, 3032-3044.	3.0	6
96	Rosette Trajectories Enable Ungated, Motion-Robust, Simultaneous Cardiac and Liver T 2 * Iron Assessment. Journal of Magnetic Resonance Imaging, 2020, 52, 1688-1698.	3.4	6
97	Accelerated MRI Reconstruction with Dual-Domain Generative Adversarial Network. Lecture Notes in Computer Science, 2019, , 47-57.	1.3	5
98	Fast Unsupervised MRI Reconstruction Without Fully-Sampled Ground Truth Data Using Generative Adversarial Networks. , 2021, , .		5
99	Fat-suppressed alternating-SSFP for whole-brain fMRI using breath-hold and visual stimulus paradigms. Magnetic Resonance in Medicine, 2016, 75, 1978-1988.	3.0	4
100	Thermo-acoustic ultrasound for noninvasive temperature monitoring at lead tips during MRI. Magnetic Resonance in Medicine, 2020, 84, 1035-1047.	3.0	4
101	Combining complex signal change in functional MRI. Magnetic Resonance in Medicine, 2009, 62, 1358-1360.	3.0	3
102	Formulation of image fusion as a constrained least squares optimization problem. Journal of Medical Imaging, 2017, 4, 014003.	1.5	3
103	Slice profile effects on nCPMG SS-FSE. Magnetic Resonance in Medicine, 2018, 79, 430-438.	3.0	3
104	Utilizing the wavelet transform's structure in compressed sensing. Signal, Image and Video Processing, 2021, 15, 1407-1414.	2.7	3
105	Novel-view X-ray projection synthesis through geometry-integrated deep learning. Medical Image Analysis, 2022, 77, 102372.	11.6	3
106	Frequency shifting reduces but does not eliminate acoustic interference between echolocating bats: A theoretical analysis. Journal of the Acoustical Society of America, 2017, 142, 2133-2142.	1.1	2
107	Task-GAN: Improving Generative Adversarial Network for Image Reconstruction. Lecture Notes in Computer Science, 2019, , 193-204.	1.3	2
108	Abstract WP53: Improved Prediction of the Final Infarct From Acute Stroke Neuroimaging Using Deep Learning. Stroke, 2018, 49, .	2.0	1

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109	Real-Time Interactive MRI for Cardiac Applications. Computer Aided Surgery, 2000, 5, 133-133.	1.8	0
110	Implementation of the derivative back projection - finite Hilbert inverse algorithm in projection reconstruction MRI. , 2007, , .		0
111	Response to comments on â€œEnsuring safety of implanted devices under MRI using reversed RF polarizationâ€• Magnetic Resonance in Medicine, 2011, 66, 1517-1517.	3.0	0
112	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
113	Biopsy marker localization with thermoâ€•acoustic ultrasound for lumpectomy guidance. Medical Physics, 2021, 48, 6069-6079.	3.0	0