Eric E Sigmund

List of Publications by Year
in descending order

81	4,430	94433 37	106344 65
papers	citations	h-index	g-index

84	84	84	4691
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Diagnosis of cirrhosis with intravoxel incoherent motion diffusion MRI and dynamic contrastâ€enhanced MRI alone and in combination: Preliminary experience. Journal of Magnetic Resonance Imaging, 2010, 31, 589-600.	3.4	336
2	Diffusion-weighted imaging of the breastâ€”a consensus and mission statement from the EUSOBI International Breast Diffusion-Weighted Imaging working group. European Radiology, 2020, 30, 1436-1450.	4.5	255
3	Diffusion-weighted breast MRI: Clinical applications and emerging techniques. Journal of Magnetic Resonance Imaging, 2017, 45, 337-355.	3.4	243
4	Prostate Cancer: Feasibility and Preliminary Experience of a Diffusional Kurtosis Model for Detection and Assessment of Aggressiveness of Peripheral Zone Cancer. Radiology, 2012, 264, 126-135.	7.3	223
5	Intravoxel Incoherent Motion and Diffusion-Tensor Imaging in Renal Tissue under Hydration and Furosemide Flow Challenges. Radiology, 2012, 263, 758-769.	7.3	185
6	Intravoxel incoherent motion imaging of tumor microenvironment in locally advanced breast cancer. Magnetic Resonance in Medicine, 2011, 65, 1437-1447.	3.0	181
7	Spatially resolved electronic structure inside and outside the vortex cores of a high-temperature superconductor. Nature, 2001, 413, 501-504.	27.8	172
8	Variability of Renal Apparent Diffusion Coefficients: Limitations of the Monoexponential Model for Diffusion Quantification. Radiology, 2010, 254, 783-792.	7.3	155
9	Comparison of Biexponential and Monoexponential Model of Diffusion Weighted Imaging in Evaluation of Renal Lesions. Investigative Radiology, 2011, 46, 285-291.	6.2	150
10	Diffusionâ€weighted imaging outside the brain: Consensus statement from an ISMRMâ€sponsored workshop. Journal of Magnetic Resonance Imaging, 2016, 44, 521-540.	3.4	146
11	Evaluation of breast cancer using intravoxel incoherent motion (IVIM) histogram analysis: comparison with malignant status, histological subtype, and molecular prognostic factors. European Radiology, 2016, 26, 2547-2558.	4.5	122
12	Diffusion MRI of the breast: Current status and future directions. Journal of Magnetic Resonance Imaging, 2020, 52, 70-90.	3.4	113
13	T1 Hyperintense Renal Lesions: Characterization with Diffusion-weighted MR Imaging versus Contrast-enhanced MR Imaging. Radiology, 2009, 251, 796-807.	7.3	104
14	Diffusion-Weighted Intravoxel Incoherent Motion Imaging of Renal Tumors With Histopathologic Correlation. Investigative Radiology, 2012, 47, 688-696.	6.2	100
15	Comparison of Whole-Body¹⁸F FDG PET/MR Imaging and Whole-Body¹⁸F FDG PET/CT in Terms of Lesion Detection and Radiation Dose in Patients with Breast Cancer. Radiology, 2016, 281, 193-202.	7.3	99
16	Optimization of bâ€value sampling for diffusionâ€weighted imaging of the kidney. Magnetic Resonance in Medicine, 2012, 67, 89-97.	3.0	98
17	Comparison of fitting methods and bâ€value sampling strategies for intravoxel incoherent motion in breast cancer. Magnetic Resonance in Medicine, 2015, 74, 1077-1085.	3.0	95
18	Combined intravoxel incoherent motion and diffusion tensor imaging of renal diffusion and flow anisotropy. Magnetic Resonance in Medicine, 2015, 73, 1526-1532.	3.0	85

#	Article	IF	Citations
19	New magnetic resonance imaging methods in nephrology. Kidney International, 2014, 85, 768-778.	5.2	84
20	Assessment of hepatocellular carcinoma using apparent diffusion coefficient and diffusion kurtosis indices: preliminary experience in fresh liver explants. Magnetic Resonance Imaging, 2012, 30, 1534-1540.	1.8	83
21	Ductal Carcinoma in Situ of the Breasts: Review of MR Imaging Features. Radiographics, 2013, 33, 1569-1588.	3.3	83
22	Stokes-Einstein Relation in Supercooled Aqueous Solutions of Glycerol. Physical Review Letters, 2006, 96, 145502.	7.8	72
23	Time-dependent diffusion in skeletal muscle with the random permeable barrier model (RPBM): application to normal controls and chronic exertional compartment syndrome patients. NMR in Biomedicine, 2014, 27, 519-528.	2.8	71
24	A Better Characterization of Spinal Cord Damage in Multiple Sclerosis: A Diffusional Kurtosis Imaging Study. American Journal of Neuroradiology, 2013, 34, 1846-1852.	2.4	64
25	Consensus-based technical recommendations for clinical translation of renal diffusion-weighted MRI. Magnetic Resonance Materials in Physics, Biology, and Medicine, 2020, 33, 177-195.	2.0	61
26	Highâ€resolution human cervical spinal cord imaging at 7â€‰T. NMR in Biomedicine, 2012, 25, 891-899.	2.8	59
27	Subtype Differentiation of Renal Tumors Using Voxel-Based Histogram Analysis of Intravoxel Incoherent Motion Parameters. Investigative Radiology, 2015, 50, 144-152.	6.2	56
28	Toward simultaneous PET/MR breast imaging: Systematic evaluation and integration of a radiofrequency breast coil. Medical Physics, 2013, 40, 024301.	3.0	54
29	A versatile flow phantom for intravoxel incoherent motion MRI. Magnetic Resonance in Medicine, 2012, 67, 1710-1720.	3.0	45
30	Diffusion-weighted MR Imaging of the Kidneys and the Urinary Tract. Magnetic Resonance Imaging Clinics of North America, 2008, 16, 585-596.	1.1	44
31	Stimulated echo diffusion tensor imaging and SPAIR T₂â€weighted imaging in chronic exertional compartment syndrome of the lower leg muscles. Journal of Magnetic Resonance Imaging, 2013, 38, 1073-1082.	3.4	44
32	In vivo measurement of membrane permeability and myofiber size in human muscle using timeâ€dependent diffusion tensor imaging and the random permeable barrier model. NMR in Biomedicine, 2017, 30, e3612.	2.8	44
33	Technical recommendations for clinical translation of renal MRI: a consensus project of the Cooperation in Science and Technology Action PARENCHIMA. Magnetic Resonance Materials in Physics, Biology, and Medicine, 2020, 33, 131-140.	2.0	44
34	Interstitial fluid pressure correlates with intravoxel incoherent motion imaging metrics in a mouse mammary carcinoma model. NMR in Biomedicine, 2012, 25, 787-794.	2.8	43
35	Utility of Diffusional Kurtosis Imaging as a Marker of Adverse Pathologic Outcomes Among Prostate Cancer Active Surveillance Candidates Undergoing Radical Prostatectomy. American Journal of Roentgenology, 2013, 201, 840-846.	2.2	40
36	Antiferromagnetism in the vortex cores ofYBa2Cu3O7â^'Î´. Physical Review B, 2003, 67, .	3.2	39

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37	A modelâ€based reconstruction for undersampled radial spinâ€echo DTI with variational penalties on the diffusion tensor. NMR in Biomedicine, 2015, 28, 353-366.	2.8	39
38	Intravoxel incoherent motion (IVIM) histogram biomarkers for prediction of neoadjuvant treatment response in breast cancer patients. European Journal of Radiology Open, 2017, 4, 101-107.	1.6	32
39	Stimulated echo diffusion tensor imaging (STEAM-DTI) with varying diffusion times as a probe of breast tissue. Journal of Magnetic Resonance Imaging, 2017, 45, 84-93.	3.4	30
40	Highâ€resolution MRI of internal field diffusionâ€weighting in trabecular bone. NMR in Biomedicine, 2009, 22, 436-448.	2.8	27
41	Diffusionâ€based MR methods for bone structure and evolution. Magnetic Resonance in Medicine, 2008, 59, 28-39.	3.0	24
42	MRI assessment of the thigh musculature in dermatomyositis and healthy subjects using diffusion tensor imaging, intravoxel incoherent motion and dynamic DTI. European Radiology, 2018, 28, 5304-5315.	4.5	24
43	Multiple echo diffusion tensor acquisition technique. Magnetic Resonance Imaging, 2006, 24, 7-18.	1.8	23
44	Assessment of Aggressiveness of Breast Cancer Using Simultaneous 18F-FDG-PET and DCE-MRI. Clinical Nuclear Medicine, 2016, 41, e355-e361.	1.3	22
45	Simultaneous Measurement of Diffusion along Multiple Directions. Journal of the American Chemical Society, 2004, 126, 16336-16337.	13.7	19
46	Renal Blood Oxygenation Levelâ€“Dependent Imaging. Investigative Radiology, 2013, 48, 501-508.	6.2	18
47	Progressive saturation NMR relaxation. Physical Review B, 2001, 64, .	3.2	17
48	Magnetic Resonance Characterization of Porous Media Using Diffusion through Internal Magnetic Fields. Materials, 2012, 5, 590-616.	2.9	16
49	Comparison of contrast enhancement and diffusion-weighted magnetic resonance imaging in healthy and cancerous breast tissue. European Journal of Radiology, 2015, 84, 1888-1893.	2.6	16
50	Inductive shielding of NMR phase noise. Journal of Magnetic Resonance, 2002, 159, 190-194.	2.1	15
51	Hole-burning diffusion measurements in high magnetic field gradients. Journal of Magnetic Resonance, 2003, 163, 99-104.	2.1	15
52	Effect of intravoxel incoherent motion on diffusion parameters in normal brain. NeuroImage, 2020, 204, 116228.	4.2	14
53	Intravoxel Incoherent Motion Magnetic Resonance Imaging in Skeletal Muscle: Review and Future Directions. Journal of Magnetic Resonance Imaging, 2022, 55, 988-1012.	3.4	14
54	A survey by the European Society of Breast Imaging on the implementation of breast diffusion-weighted imaging in clinical practice. European Radiology, 2022, 32, 6588-6597.	4.5	14

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55	Spatial Heterogeneity Length Scales in Carbonate Rocks. Applied Magnetic Resonance, 2007, 32, 221-231.	1.2	13
56	NMR Phase Noise in Bitter Magnets. Journal of Magnetic Resonance, 2001, 148, 309-313.	2.1	12
57	Fast imaging with the MMME sequence. Journal of Magnetic Resonance, 2006, 180, 18-28.	2.1	11
58	Rapid measurement of three-dimensional diffusion tensor. Journal of Chemical Physics, 2007, 126, 154501.	3.0	11
59	REnal Flow and Microstructure AnisotroPy (REFMAP) MRI in Normal and Peritumoral Renal Tissue. Journal of Magnetic Resonance Imaging, 2018, 48, 188-197.	3.4	11
60	Diffusion-weighted imaging of the brain at 7 T with echo-planar and turbo spin echo sequences: preliminary results. Magnetic Resonance Imaging, 2011, 29, 752-765.	1.8	10
61	Multipleâ€modulationâ€multipleâ€echo magnetic resonance. Concepts in Magnetic Resonance Part A: Bridging Education and Research, 2007, 30A, 358-377.	0.5	9
62	A single-scan method for measuring flow along an arbitrary direction. Journal of Magnetic Resonance, 2007, 186, 11-16.	2.1	9
63	Multipleâ€echo diffusion tensor acquisition technique (MEDITATE) on a 3T clinical scanner. NMR in Biomedicine, 2013, 26, 1471-1483.	2.8	9
64	Voxelwise analysis of simultaneously acquired and spatially correlated ¹⁸Fâ€fluorodeoxyglucose (FDG)â€PET and intravoxel incoherent motion metrics in breast cancer. Magnetic Resonance in Medicine, 2017, 78, 1147-1156.	3.0	9
65	Rapid measurement via decay-recovery decomposition: Applications in fringe field and distributed relaxation experiments. Solid State Nuclear Magnetic Resonance, 2006, 29, 232-241.	2.3	8
66	Dynamic diffusion-tensor measurements in muscle tissue using the single-line multiple-echo diffusion-tensor acquisition technique at 3T. NMR in Biomedicine, 2015, 28, 667-678.	2.8	8
67	Spatially resolved kinetics of skeletal muscle exercise response and recovery with multiple echo diffusion tensor imaging (MEDITI): a feasibility study. Magnetic Resonance Materials in Physics, Biology, and Medicine, 2018, 31, 599-608.	2.0	6
68	Magnetic Resonance Imaging of Part-solid Nodules. Journal of Thoracic Imaging, 2016, 31, 2-10.	1.5	5
69	Geometric Distortion Correction of Renal Diffusion Tensor Imaging Using the Reversed Gradient Method. Journal of Computer Assisted Tomography, 2021, 45, 218-223.	0.9	5
70	Lithium transport in a macrocyclic electrolyte. Physical Review B, 2001, 64, .	3.2	4
71	Anisotropy and penetration depth of MgB2from11B NMR. New Journal of Physics, 2006, 8, 274-274.	2.9	4
72	Preliminary analysis: Background parenchymal 18F-FDG uptake in breast cancer patients appears to correlate with background parenchymal enhancement and to vary by distance from the index cancer. European Journal of Radiology, 2019, 110, 163-168.	2.6	3

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73	NMR lineshape in the vortex lattice state of near-optimally doped YBa2Cu3O7â˜Î´. Physica C: Superconductivity and Its Applications, 2003, 388-389, 629-630.	1.2	2
74	Alkali ionâ€“cryptand interactions and their effects on electrolyte conductivity. Physical Chemistry Chemical Physics, 2003, 5, 2072-2081.	2.8	2
75	Perspectives on Porous Media MR in Clinical MRI. AIP Conference Proceedings, 2011, , .	0.4	2
76	Porous Materials. , 2006, , 340-358.		1
77	Diffusion-weighted Imaging of Prostate Cancer: Revisiting Occamâ€™s Razor. Radiology, 2019, 291, 398-399.	7.3	1
78	Basic physical principles of body diffusion-weighted MRI. , 0, , 1-17.		0
79	Polar signal averaging. Concepts in Magnetic Resonance, 2002, 14, 359-364.	1.3	0
80	Stimulated echo diffusion tensor imaging (STEAM-DTI) with varying diffusion times as a probe of breast tissue. Journal of Magnetic Resonance Imaging, 2017, 45, spcone-spcone.	3.4	0
81	Multiple-Echo Magnetic Resonance. , 0, , 31-48.		0