

Anthony H Aletras

List of Publications by Year in descending order

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105
papers

11,775
citations

81743

39
h-index

45213

90
g-index

107
all docs

107
docs citations

107
times ranked

9312
citing authors

#	ARTICLE	IF	CITATIONS
1	Super-Resolution Cine Image Enhancement for Fetal Cardiac Magnetic Resonance Imaging. <i>Journal of Magnetic Resonance Imaging</i> , 2022, 56, 223-231.	1.9	10
2	Roadmap on signal processing for next generation measurement systems. <i>Measurement Science and Technology</i> , 2022, 33, 012002.	1.4	12
3	Validation and quantification of left ventricular function during exercise and free breathing from real-time cardiac magnetic resonance images. <i>Scientific Reports</i> , 2022, 12, 5611.	1.6	1
4	Simulator-generated training datasets as an alternative to using patient data for machine learning: An example in myocardial segmentation with MRI. <i>Computer Methods and Programs in Biomedicine</i> , 2021, 198, 105817.	2.6	8
5	Free-breathing fetal cardiac MRI with doppler ultrasound gating, compressed sensing, and motion compensation. <i>Journal of Magnetic Resonance Imaging</i> , 2020, 51, 260-272.	1.9	25
6	Measuring extracellular volume fraction by MRI: First verification of values given by clinical sequences. <i>Magnetic Resonance in Medicine</i> , 2020, 83, 662-672.	1.9	5
7	Cardiac MRI Endpoints in Myocardial Infarction Experimental and Clinical Trials. <i>Journal of the American College of Cardiology</i> , 2019, 74, 238-256.	1.2	235
8	coreMRI: A high-performance, publicly available MR simulation platform on the cloud. <i>PLoS ONE</i> , 2019, 14, e0216594.	1.1	10
9	A new vessel segmentation algorithm for robust blood flow quantification from two-dimensional phase-contrast magnetic resonance images. <i>Clinical Physiology and Functional Imaging</i> , 2019, 39, 327-338.	0.5	15
10	Fetal iGRASP cine CMR assisting in prenatal diagnosis of complicated cardiac malformation with impact on delivery planning. <i>Clinical Physiology and Functional Imaging</i> , 2019, 39, 231-235.	0.5	9
11	Current and Emerging Technologies for Cardiovascular Imaging. <i>Series in Bioengineering</i> , 2019, , 13-59.	0.3	0
12	Quantification of blood flow in the fetus with cardiovascular magnetic resonance imaging using Doppler ultrasound gating: validation against metric optimized gating. <i>Journal of Cardiovascular Magnetic Resonance</i> , 2019, 21, 74.	1.6	19
13	Independent validation of metric optimized gating for fetal cardiovascular phase-contrast flow imaging. <i>Magnetic Resonance in Medicine</i> , 2019, 81, 495-503.	1.9	11
14	Simulation-based quantification of native T1 and T2 of the myocardium using a modified MOLLI scheme and the importance of Magnetization Transfer. <i>Magnetic Resonance Imaging</i> , 2018, 48, 96-106.	1.0	12
15	Automatic lung segmentation in functional SPECT images using active shape models trained on reference lung shapes from CT. <i>Annals of Nuclear Medicine</i> , 2018, 32, 94-104.	1.2	8
16	Cardiac magnetic resonance imaging in myocardial inflammation in autoimmune rheumatic diseases: An appraisal of the diagnostic strengths and limitations of the Lake Louise criteria. <i>International Journal of Cardiology</i> , 2018, 252, 216-219.	0.8	32
17	Association of Unrecognized Myocardial Infarction With Long-term Outcomes in Community-Dwelling Older Adults. <i>JAMA Cardiology</i> , 2018, 3, 1101.	3.0	39
18	Dynamic fetal cardiovascular magnetic resonance imaging using Doppler ultrasound gating. <i>Journal of Cardiovascular Magnetic Resonance</i> , 2018, 20, 17.	1.6	55

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19	Importance of standardizing timing of hematocrit measurement when using cardiovascular magnetic resonance to calculate myocardial extracellular volume (ECV) based on pre- and post-contrast T1 mapping. <i>Journal of Cardiovascular Magnetic Resonance</i> , 2018, 20, 46.	1.6	22
20	Self-gated fetal cardiac MRI with tiny golden angle iGRASP: A feasibility study. <i>Journal of Magnetic Resonance Imaging</i> , 2017, 46, 207-217.	1.9	45
21	Cloud GPU-based simulations for SQUAREMR. <i>Journal of Magnetic Resonance</i> , 2017, 274, 80-88.	1.2	2
22	Validation of T1 and T2 algorithms for quantitative MRI: performance by a vendor-independent software. <i>BMC Medical Imaging</i> , 2016, 16, 46.	1.4	12
23	The evolution of myocardium at risk by T2-STIR MR imaging the first week after acute myocardial ischemia. <i>Journal of Cardiovascular Magnetic Resonance</i> , 2016, 18, P94.	1.6	0
24	Cardiovascular magnetic resonance in rheumatology: Current status and recommendations for use. <i>International Journal of Cardiology</i> , 2016, 217, 135-148.	0.8	114
25	Multi-vendor, multicentre comparison of contrast-enhanced SSFP and T2-STIR CMR for determining myocardium at risk in ST-elevation myocardial infarction. <i>European Heart Journal Cardiovascular Imaging</i> , 2016, 17, 744-753.	0.5	47
26	Validation of a new t2* algorithm and its uncertainty value for cardiac and liver iron load determination from MRI magnitude images. <i>Magnetic Resonance in Medicine</i> , 2016, 75, 1717-1729.	1.9	9
27	Using a modified 3D-printer for mapping the magnetic field of RF coils designed for fetal and neonatal imaging. <i>Journal of Magnetic Resonance</i> , 2016, 269, 146-151.	1.2	4
28	Extent of Myocardium at Risk for Left Anterior Descending Artery, Right Coronary Artery, and Left Circumflex Artery Occlusion Depicted by Contrast-Enhanced Steady State Free Precession and T2-Weighted Short Tau Inversion Recovery Magnetic Resonance Imaging. <i>Circulation: Cardiovascular Imaging</i> , 2016, 9, .	1.3	20
29	MR photography of 3D-MR images. <i>Journal of Cardiovascular Magnetic Resonance</i> , 2016, 18, P33.	1.6	0
30	New automatic algorithm for segmentation of myocardial scar in both inversion recovery and phase sensitive inversion recovery late gadolinium enhancement: validation against TTC and in multi-center, multi-vendor patient data. <i>Journal of Cardiovascular Magnetic Resonance</i> , 2016, 18, P221.	1.6	0
31	Accelerated cloud and GPU-based simulations for quantification of relaxation times: an example with MOLLI. <i>Journal of Cardiovascular Magnetic Resonance</i> , 2016, 18, P42.	1.6	0
32	Validation of a T1 and T2 mapping software for quantitative MRI. <i>Journal of Cardiovascular Magnetic Resonance</i> , 2016, 18, W28.	1.6	0
33	A new automatic algorithm for quantification of myocardial infarction imaged by late gadolinium enhancement cardiovascular magnetic resonance: experimental validation and comparison to expert delineations in multi-center, multi-vendor patient data. <i>Journal of Cardiovascular Magnetic Resonance</i> , 2016, 18, 27.	1.6	67
34	Automatic segmentation of myocardium at risk from contrast enhanced SSFP CMR: validation against expert readers and SPECT. <i>BMC Medical Imaging</i> , 2016, 16, 19.	1.4	11
35	Experimental validation of contrast-enhanced SSFP cine CMR for quantification of myocardium at risk in acute myocardial infarction. <i>Journal of Cardiovascular Magnetic Resonance</i> , 2016, 19, 12.	1.6	22
36	Fully quantitative cardiovascular magnetic resonance myocardial perfusion ready for clinical use: a comparison between cardiovascular magnetic resonance imaging and positron emission tomography. <i>Journal of Cardiovascular Magnetic Resonance</i> , 2016, 19, 78.	1.6	110

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37	Massively parallel CUDA simulations of cardiac and embryonic MRI on a cloud-based cluster. , 2015, , .		1
38	Parallel simulations for QUAntifying RELaxation magnetic resonance constants (SQUAREMR): an example towards accurate MOLLI T1 measurements. Journal of Cardiovascular Magnetic Resonance, 2015, 17, 104.	1.6	19
39	Semi-automatic segmentation of myocardium at risk from contrast enhanced SSFP images - validation against manual delineation and SPECT. Journal of Cardiovascular Magnetic Resonance, 2015, 17, Q127.	1.6	0
40	Simulating MR imaging for the human embryonic heart. Journal of Cardiovascular Magnetic Resonance, 2015, 17, P48.	1.6	0
41	A new validated T2* analysis method with certainty estimates for cardiac and liver iron load determination. Journal of Cardiovascular Magnetic Resonance, 2015, 17, P52.	1.6	2
42	Regional adenosine-induced hypoperfusion without hyperenhancement on LGE-MRI in young HCM patients: comparison to subjects at risk of HCM and healthy volunteers. Journal of Cardiovascular Magnetic Resonance, 2015, 17, Q51.	1.6	0
43	Regional Stress-Induced Ischemia in Non-fibrotic Hypertrophied Myocardium in Young HCM Patients. Pediatric Cardiology, 2015, 36, 1662-1669.	0.6	20
44	High performance MRI simulations of motion on multi-GPU systems. Journal of Cardiovascular Magnetic Resonance, 2014, 16, 48.	1.6	25
45	MRISIMUL: A GPU-Based Parallel Approach to MRI Simulations. IEEE Transactions on Medical Imaging, 2014, 33, 607-617.	5.4	46
46	Quantification of myocardial salvage by myocardial perfusion SPECT and cardiac magnetic resonance " reference standards for ECG development. Journal of Electrocardiology, 2014, 47, 525-534.	0.4	4
47	Diagnostic Accuracy of Stress Perfusion CMR in Comparison With Quantitative Coronary Angiography. JACC: Cardiovascular Imaging, 2014, 7, 14-22.	2.3	97
48	Navigated DENSE strain imaging for post-radiofrequency ablation lesion assessment in the swine left atria. Europace, 2014, 16, 133-141.	0.7	5
49	A high performance parallelizable MRI physics simulator with graphic processing unit technology. Journal of Cardiovascular Magnetic Resonance, 2013, 15, E45.	1.6	0
50	Accelerated MR physics simulations on multi-GPU systems. , 2013, , .		0
51	Prevalence and Prognosis of Unrecognized Myocardial Infarction Determined by Cardiac Magnetic Resonance in Older Adults. JAMA - Journal of the American Medical Association, 2012, 308, 890.	3.8	234
52	Extracellular volume imaging by magnetic resonance imaging provides insights into overt and sub-clinical myocardial pathology. European Heart Journal, 2012, 33, 1268-1278.	1.0	482
53	A Quantitative Pixel-Wise Measurement of Myocardial Blood Flow by Contrast-Enhanced First-Pass CMR Perfusion Imaging. JACC: Cardiovascular Imaging, 2012, 5, 154-166.	2.3	120
54	Myocardial Edema as Detected by Pre-Contrast T1 and T2 CMR Delineates Area at Risk Associated With Acute Myocardial Infarction. JACC: Cardiovascular Imaging, 2012, 5, 596-603.	2.3	283

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55	Understanding why edema in salvaged myocardium is difficult to detect by late gadolinium enhancement. Journal of Cardiovascular Magnetic Resonance, 2012, 14, .	1.6	5
56	Quantitative T1-maps delineate myocardium at risk as accurately as T2-maps - experimental validation with microspheres. Journal of Cardiovascular Magnetic Resonance, 2011, 13, .	1.6	3
57	Non-contrast quantitative T1-mapping indicates that salvaged myocardium develops edema during coronary occlusion, whereas infarction exhibits evidence of additional reperfusion injury. Journal of Cardiovascular Magnetic Resonance, 2011, 13, .	1.6	3
58	Comparison of arterial input function measured from dual-bolus and dual-sequence dynamic contrast-enhanced cardiac magnetic resonance imaging. Journal of Cardiovascular Magnetic Resonance, 2011, 13, .	1.6	1
59	Myocardial extracellular volume imaging by CMR quantitatively characterizes myocardial infarction and subclinical myocardial fibrosis. Journal of Cardiovascular Magnetic Resonance, 2011, 13, .	1.6	3
60	Edema by T2-weighted imaging in salvaged myocardium is extracellular, not intracellular. Journal of Cardiovascular Magnetic Resonance, 2011, 13, .	1.6	4
61	Heterogeneity of Intramural Function in Hypertrophic Cardiomyopathy. Circulation: Cardiovascular Imaging, 2011, 4, 425-434.	1.3	44
62	Bright-Blood T ₂ -Weighted MRI Has High Diagnostic Accuracy for Myocardial Hemorrhage in Myocardial Infarction. Circulation: Cardiovascular Imaging, 2011, 4, 738-745.	1.3	57
63	Magnetic Resonance Imaging Delineates the Ischemic Area at Risk and Myocardial Salvage in Patients With Acute Myocardial Infarction. Circulation: Cardiovascular Imaging, 2010, 3, 527-535.	1.3	114
64	Late Gadolinium-Enhancement Cardiac Magnetic Resonance Identifies Postinfarction Myocardial Fibrosis and the Border Zone at the Near Cellular Level in Ex Vivo Rat Heart. Circulation: Cardiovascular Imaging, 2010, 3, 743-752.	1.3	156
65	Cardiovascular Magnetic Resonance in Myocarditis: A JACC White Paper. Journal of the American College of Cardiology, 2009, 53, 1475-1487.	1.2	2,055
66	Estimation of absolute myocardial blood flow during first-pass MR perfusion imaging using a dual-bolus injection technique: Comparison to single-bolus injection method. Journal of Magnetic Resonance Imaging, 2008, 27, 1271-1277.	1.9	76
67	ACUTE TSE-SFP: A hybrid method for T2-weighted imaging of edema in the heart. Magnetic Resonance in Medicine, 2008, 59, 229-235.	1.9	536
68	Nitrite Anion Provides Potent Cytoprotective and Antiapoptotic Effects as Adjunctive Therapy to Reperfusion for Acute Myocardial Infarction. Circulation, 2008, 117, 2986-2994.	1.6	157
69	Correcting surface coil intensity inhomogeneity improves quantitative analysis of cardiac magnetic resonance images. , 2008, , .		6
70	In Vivo T2-Weighted Magnetic Resonance Imaging Can Accurately Determine the Ischemic Area at Risk for 2-Day-Old Nonreperfused Myocardial Infarction. Investigative Radiology, 2008, 43, 7-15.	3.5	88
71	Quantitative MRI Techniques in Regional Myocardial Function. , 2008, , 123-154.		0
72	Age-Related Vascular Stiffness and Left Ventricular Size After Myocardial Infarction. The American Journal of Geriatric Cardiology, 2007, 16, 222-228.	0.7	12

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73	T2-prepared SSFP improves diagnostic confidence in edema imaging in acute myocardial infarction compared to turbo spin echo. <i>Magnetic Resonance in Medicine</i> , 2007, 57, 891-897.	1.9	219
74	Myocardial Strain Decreases with Increasing Transmurality of Infarction: A Doppler Echocardiographic and Magnetic Resonance Correlation Study. <i>Journal of the American Society of Echocardiography</i> , 2006, 19, 34-39.	1.2	23
75	Prognosis of Negative Adenosine Stress Magnetic Resonance in Patients Presenting to an Emergency Department With Chest Pain. <i>Journal of the American College of Cardiology</i> , 2006, 47, 1427-1432.	1.2	285
76	Retrospective Determination of the Area at Risk for Reperfused Acute Myocardial Infarction With T2-Weighted Cardiac Magnetic Resonance Imaging. <i>Circulation</i> , 2006, 113, 1865-1870.	1.6	902
77	T2* measurement during first-pass contrast-enhanced cardiac perfusion imaging. <i>Magnetic Resonance in Medicine</i> , 2006, 56, 1132-1134.	1.9	24
78	Quantitative myocardial infarction on delayed enhancement MRI. Part II: Clinical application of an automated feature analysis and combined thresholding infarct sizing algorithm. <i>Journal of Magnetic Resonance Imaging</i> , 2006, 23, 309-314.	1.9	77
79	Quantitative myocardial infarction on delayed enhancement MRI. Part I: Animal validation of an automated feature analysis and combined thresholding infarct sizing algorithm. <i>Journal of Magnetic Resonance Imaging</i> , 2006, 23, 298-308.	1.9	154
80	Quantitative myocardial perfusion analysis with a dual-bolus contrast-enhanced first-pass MRI technique in humans. <i>Journal of Magnetic Resonance Imaging</i> , 2006, 23, 315-322.	1.9	130
81	Computerized measurement of myocardial infarct size on contrast-enhanced magnetic resonance images. , 2005, , .		0
82	DENSE with SENSE. <i>Journal of Magnetic Resonance</i> , 2005, 176, 99-106.	1.2	32
83	Wash-in kinetics for gadolinium-enhanced magnetic resonance imaging of carotid atheroma. <i>Journal of Magnetic Resonance Imaging</i> , 2005, 21, 91-95.	1.9	34
84	Manganese enhanced magnetic resonance imaging of normal and ischemic canine heart. <i>Magnetic Resonance in Medicine</i> , 2005, 54, 196-200.	1.9	31
85	Determining Canine Myocardial Area at Risk with Manganese-enhanced MR Imaging. <i>Radiology</i> , 2005, 236, 859-866.	3.6	29
86	Absolute Myocardial Perfusion in Canines Measured by Using Dual-Bolus First-Pass MR Imaging. <i>Radiology</i> , 2004, 232, 677-684.	3.6	271
87	Artifact suppression in imaging of myocardial infarction using B1-weighted phased-array combined phase-sensitive inversion recovery. <i>Magnetic Resonance in Medicine</i> , 2004, 51, 408-412.	1.9	20
88	AIR-SPAMM: alternative inversion recovery spatial modulation of magnetization for myocardial tagging. <i>Journal of Magnetic Resonance</i> , 2004, 166, 236-245.	1.2	8
89	meta-DENSE complex acquisition for reduced intravoxel dephasing. <i>Journal of Magnetic Resonance</i> , 2004, 169, 246-249.	1.2	22
90	Gadolinium delayed enhancement cardiovascular magnetic resonance correlates with clinical measures of myocardial infarction. <i>Journal of the American College of Cardiology</i> , 2004, 43, 2253-2259.	1.2	292

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91	Detecting Acute Coronary Syndrome in the Emergency Department With Cardiac Magnetic Resonance Imaging. <i>Circulation</i> , 2003, 107, 531-537.	1.6	328
92	Stunned, Infarcted, and Normal Myocardium in Dogs: Simultaneous Differentiation by Using Gadolinium-enhanced Cine MR Imaging with Magnetization Transfer Contrast. <i>Radiology</i> , 2003, 226, 723-730.	3.6	39
93	Phase-sensitive inversion recovery for detecting myocardial infarction using gadolinium-delayed hyperenhancement. <i>Magnetic Resonance in Medicine</i> , 2002, 47, 372-383.	1.9	941
94	Multishot EPI-SSFP in the heart. <i>Magnetic Resonance in Medicine</i> , 2002, 47, 655-664.	1.9	40
95	The Overall Pattern of Cardiac Contraction Depends on a Spatial Gradient of Myosin Regulatory Light Chain Phosphorylation. <i>Cell</i> , 2001, 107, 631-641.	13.5	245
96	Mixed echo train acquisition displacement encoding with stimulated echoes: An optimized DENSE method for in vivo functional imaging of the human heart. <i>Magnetic Resonance in Medicine</i> , 2001, 46, 523-534.	1.9	79
97	In vivo ¹ H double quantum filtered MRI of the human wrist and ankle. <i>Magnetic Resonance in Medicine</i> , 2000, 43, 640-644.	1.9	11
98	A New Class of Contrast Agents for MRI Based on Proton Chemical Exchange Dependent Saturation Transfer (CEST). <i>Journal of Magnetic Resonance</i> , 2000, 143, 79-87.	1.2	1,209
99	Imaging of urea using chemical exchange-dependent saturation transfer at 1.5T. <i>Journal of Magnetic Resonance Imaging</i> , 2000, 12, 745-748.	1.9	58
100	DENSE: Displacement Encoding with Stimulated Echoes in Cardiac Functional MRI. <i>Journal of Magnetic Resonance</i> , 1999, 137, 247-252.	1.2	453
101	High-Resolution Strain Analysis of the Human Heart with Fast-DENSE. <i>Journal of Magnetic Resonance</i> , 1999, 140, 41-57.	1.2	111
102	Alternate k-space sampling in EPI: Compensation for T ₂ * and adjustable T ₂ weighting. <i>Magnetic Resonance in Medicine</i> , 1996, 35, 617-620.	1.9	2
103	Spatial Localization with Modified Fourier Series Windows. <i>Investigative Radiology</i> , 1996, 31, 611-618.	3.5	3
104	3D Echo Planar Imaging: Application to the Human Head. <i>Magnetic Resonance in Medicine</i> , 1995, 34, 144-148.	1.9	10
105	Torque free asymmetric gradient coils for echo planar imaging. <i>Magnetic Resonance in Medicine</i> , 1994, 31, 450-453.	1.9	44