Anthony H Aletras

List of Publications by Year
in descending order

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105 papers	11,775 citations	81839 39 h-index	45285 90 g-index
107 all docs	107 docs citations	107 times ranked	9312 citing authors

#	Article	IF	Citations
1	Cardiovascular Magnetic Resonance in Myocarditis: A JACC White Paper. Journal of the American College of Cardiology, 2009, 53, 1475-1487.	1.2	2,055
2	A New Class of Contrast Agents for MRI Based on Proton Chemical Exchange Dependent Saturation Transfer (CEST). Journal of Magnetic Resonance, 2000, 143, 79-87.	1.2	1,209
3	Phase-sensitive inversion recovery for detecting myocardial infarction using gadolinium-delayed hyperenhancement. Magnetic Resonance in Medicine, 2002, 47, 372-383.	1.9	941
4	Retrospective Determination of the Area at Risk for Reperfused Acute Myocardial Infarction With T2-Weighted Cardiac Magnetic Resonance Imaging. Circulation, 2006, 113, 1865-1870.	1.6	902
5	ACUT₂E TSEâ€SSFP: A hybrid method for T2â€weighted imaging of edema in the heart. Magnetic Resonance in Medicine, 2008, 59, 229-235.	1.9	536
6	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
7	DENSE: Displacement Encoding with Stimulated Echoes in Cardiac Functional MRI. Journal of Magnetic Resonance, 1999, 137, 247-252.	1.2	453
8	Detecting Acute Coronary Syndrome in the Emergency Department With Cardiac Magnetic Resonance Imaging. Circulation, 2003, 107, 531-537.	1.6	328
9	Gadolinium delayed enhancement cardiovascular magnetic resonance correlates with clinical measures of myocardial infarction. Journal of the American College of Cardiology, 2004, 43, 2253-2259.	1.2	292
10	Prognosis of Negative Adenosine Stress Magnetic Resonance in Patients Presenting to an Emergency Department With Chest Pain. Journal of the American College of Cardiology, 2006, 47, 1427-1432.	1.2	285
11	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
12	Absolute Myocardial Perfusion in Canines Measured by Using Dual-Bolus First-Pass MR Imaging. Radiology, 2004, 232, 677-684.	3.6	271
13	The Overall Pattern of Cardiac Contraction Depends on a Spatial Gradient of Myosin Regulatory Light Chain Phosphorylation. Cell, 2001, 107, 631-641.	13.5	245
14	Cardiac MRI Endpoints in MyocardialÂInfarction Experimental andÂClinicalÂTrials. Journal of the American College of Cardiology, 2019, 74, 238-256.	1.2	235
15	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
16	T2-prepared SSFP improves diagnostic confidence in edema imaging in acute myocardial infarction compared to turbo spin echo. Magnetic Resonance in Medicine, 2007, 57, 891-897.	1.9	219
17	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
18	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

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19	Quantitative myocardial infarction on delayed enhancement MRI. Part I: Animal validation of an automated feature analysis and combined thresholding infarct sizing algorithm. Journal of Magnetic Resonance Imaging, 2006, 23, 298-308.	1.9	154
20	Quantitative myocardial perfusion analysis with a dual-bolus contrast-enhanced first-pass MRI technique in humans. Journal of Magnetic Resonance Imaging, 2006, 23, 315-322.	1.9	130
21	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
22	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
23	Cardiovascular magnetic resonance in rheumatology: Current status and recommendations for use. International Journal of Cardiology, 2016, 217, 135-148.	0.8	114
24	High-Resolution Strain Analysis of the Human Heart with Fast-DENSE. Journal of Magnetic Resonance, 1999, 140, 41-57.	1.2	111
25	Fully quantitative cardiovascular magnetic resonance myocardial perfusion ready for clinical use: a comparison between cardiovascular magnetic resonance imaging and positron emission tomography. Journal of Cardiovascular Magnetic Resonance, 2016, 19, 78.	1.6	110
26	Diagnostic Accuracy of Stress Perfusion CMR in Comparison With Quantitative Coronary Angiography. JACC: Cardiovascular Imaging, 2014, 7, 14-22.	2.3	97
27	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
28	Mixed echo train acquisition displacement encoding with stimulated echoes: An optimized DENSE method for in vivo functional imaging of the human heart. Magnetic Resonance in Medicine, 2001, 46, 523-534.	1.9	79
29	Quantitative myocardial infarction on delayed enhancement MRI. Part II: Clinical application of an automated feature analysis and combined thresholding infarct sizing algorithm. Journal of Magnetic Resonance Imaging, 2006, 23, 309-314.	1.9	77
30	Estimation of absolute myocardial blood flow during firstâ€pass MR perfusion imaging using a dualâ€bolus injection technique: Comparison to singleâ€bolus injection method. Journal of Magnetic Resonance Imaging, 2008, 27, 1271-1277.	1.9	76
31	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. Journal of Cardiovascular Magnetic Resonance, 2016, 18, 27.	1.6	67
32	Imaging of urea using chemical exchange-dependent saturation transfer at 1.5T. Journal of Magnetic Resonance Imaging, 2000, 12, 745-748.	1.9	58
33	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
34	Dynamic fetal cardiovascular magnetic resonance imaging using Doppler ultrasound gating. Journal of Cardiovascular Magnetic Resonance, 2018, 20, 17.	1.6	55
35	Multi-vendor, multicentre comparison of contrast-enhanced SSFP and T2-STIR CMR for determining myocardium at risk in ST-elevation myocardial infarction. European Heart Journal Cardiovascular Imaging, 2016, 17, 744-753.	0.5	47
36	MRISIMUL: A GPU-Based Parallel Approach to MRI Simulations. IEEE Transactions on Medical Imaging, 2014, 33, 607-617.	5.4	46

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37	Self-gated fetal cardiac MRI with tiny golden angle iGRASP: A feasibility study. Journal of Magnetic Resonance Imaging, 2017, 46, 207-217.	1.9	45
38	Torque free asymmetric gradient coils for echo planar imaging. Magnetic Resonance in Medicine, 1994, 31, 450-453.	1.9	44
39	Heterogeneity of Intramural Function in Hypertrophic Cardiomyopathy. Circulation: Cardiovascular Imaging, 2011, 4, 425-434.	1.3	44
40	Multishot EPI-SSFP in the heart. Magnetic Resonance in Medicine, 2002, 47, 655-664.	1.9	40
41	Stunned, Infarcted, and Normal Myocardium in Dogs: Simultaneous Differentiation by Using Gadolinium-enhanced Cine MR Imaging with Magnetization Transfer Contrast. Radiology, 2003, 226, 723-730.	3.6	39
42	Association of Unrecognized Myocardial Infarction With Long-term Outcomes in Community-Dwelling Older Adults. JAMA Cardiology, 2018, 3, 1101.	3.0	39
43	Wash-in kinetics for gadolinium-enhanced magnetic resonance imaging of carotid atheroma. Journal of Magnetic Resonance Imaging, 2005, 21, 91-95.	1.9	34
44	DENSE with SENSE. Journal of Magnetic Resonance, 2005, 176, 99-106.	1.2	32
45	Cardiac magnetic resonance imaging in myocardial inflammation in autoimmune rheumatic diseases: An appraisal of the diagnostic strengths and limitations of the Lake Louise criteria. International Journal of Cardiology, 2018, 252, 216-219.	0.8	32
46	Manganese enhanced magnetic resonance imaging of normal and ischemic canine heart. Magnetic Resonance in Medicine, 2005, 54, 196-200.	1.9	31
47	Determining Canine Myocardial Area at Risk with Manganese-enhanced MR Imaging. Radiology, 2005, 236, 859-866.	3.6	29
48	High performance MRI simulations of motion on multi-GPU systems. Journal of Cardiovascular Magnetic Resonance, 2014, 16, 48.	1.6	25
49	Freeâ€breathing fetal cardiac MRI with doppler ultrasound gating, compressed sensing, and motion compensation. Journal of Magnetic Resonance Imaging, 2020, 51, 260-272.	1.9	25
50	T2* measurement during first-pass contrast-enhanced cardiac perfusion imaging. Magnetic Resonance in Medicine, 2006, 56, 1132-1134.	1.9	24
51	Myocardial Strain Decreases with Increasing Transmurality of Infarction: A Doppler Echocardiographic and Magnetic Resonance Correlation Study. Journal of the American Society of Echocardiography, 2006, 19, 34-39.	1.2	23
52	meta-DENSE complex acquisition for reduced intravoxel dephasing. Journal of Magnetic Resonance, 2004, 169, 246-249.	1.2	22
53	Experimental validation of contrast-enhanced SSFP cine CMR for quantification of myocardium at risk in acute myocardial infarction. Journal of Cardiovascular Magnetic Resonance, 2016, 19, 12.	1.6	22
54	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. Journal of Cardiovascular Magnetic Resonance, 2018, 20, 46.	1.6	22

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55	Artifact suppression in imaging of myocardial infarction usingB1-weighted phased-array combined phase-sensitive inversion recovery. Magnetic Resonance in Medicine, 2004, 51, 408-412.	1.9	20
56	Regional Stress-Induced Ischemia in Non-fibrotic Hypertrophied Myocardium in Young HCM Patients. Pediatric Cardiology, 2015, 36, 1662-1669.	0.6	20
57	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. Circulation: Cardiovascular Imaging, 2016, 9, .	1.3	20
58	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
59	Quantification of blood flow in the fetus with cardiovascular magnetic resonance imaging using Doppler ultrasound gating: validation against metric optimized gating. Journal of Cardiovascular Magnetic Resonance, 2019, 21, 74.	1.6	19
60	A new vessel segmentation algorithm for robust blood flow quantification from twoâ€dimensional phaseâ€contrast magnetic resonance images. Clinical Physiology and Functional Imaging, 2019, 39, 327-338.	0.5	15
61	Ageâ€Related Vascular Stiffness and Left Ventricular Size After Myocardial Infarction. The American Journal of Geriatric Cardiology, 2007, 16, 222-228.	0.7	12
62	Validation of T1 and T2 algorithms for quantitative MRI: performance by a vendor-independent software. BMC Medical Imaging, 2016, 16, 46.	1.4	12
63	Simulation-based quantification of native T1 and T2 of the myocardium using a modified MOLLI scheme and the importance of Magnetization Transfer. Magnetic Resonance Imaging, 2018, 48, 96-106.	1.0	12
64	Roadmap on signal processing for next generation measurement systems. Measurement Science and Technology, 2022, 33, 012002.	1.4	12
65	In vivo1H double quantum filtered MRI of the human wrist and ankle. Magnetic Resonance in Medicine, 2000, 43, 640-644.	1.9	11
66	Automatic segmentation of myocardium at risk from contrast enhanced SSFP CMR: validation against expert readers and SPECT. BMC Medical Imaging, 2016, 16, 19.	1.4	11
67	Independent validation of metric optimized gating for fetal cardiovascular phaseâ€contrast flow imaging. Magnetic Resonance in Medicine, 2019, 81, 495-503.	1.9	11
68	3D Echo Planar Imaging: Application to the Human Head. Magnetic Resonance in Medicine, 1995, 34, 144-148.	1.9	10
69	coreMRI: A high-performance, publicly available MR simulation platform on the cloud. PLoS ONE, 2019, 14, e0216594.	1.1	10
70	Superâ€Resolution Cine Image Enhancement for Fetal Cardiac Magnetic Resonance Imaging. Journal of Magnetic Resonance Imaging, 2022, 56, 223-231.	1.9	10
71	Validation of a new t2* algorithm and its uncertainty value for cardiac and liver iron load determination from MRI magnitude images. Magnetic Resonance in Medicine, 2016, 75, 1717-1729.	1.9	9
72	Fetal iGRASP cine CMR assisting in prenatal diagnosis of complicated cardiac malformation with impact on delivery planning. Clinical Physiology and Functional Imaging, 2019, 39, 231-235.	0.5	9

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73	AIR-SPAMM: alternative inversion recovery spatial modulation of magnetization for myocardial tagging. Journal of Magnetic Resonance, 2004, 166, 236-245.	1.2	8
74	Automatic lung segmentation in functional SPECT images using active shape models trained on reference lung shapes from CT. Annals of Nuclear Medicine, 2018, 32, 94-104.	1.2	8
75	Simulator-generated training datasets as an alternative to using patient data for machine learning: An example in myocardial segmentation with MRI. Computer Methods and Programs in Biomedicine, 2021, 198, 105817.	2.6	8
76	Correcting surface coil intensity inhomogeneity improves quantitative analysis of cardiac magnetic resonance images. , 2008, , .		6
77	Understanding why edema in salvaged myocardium is difficult to detect by late gadolinium enhancement. Journal of Cardiovascular Magnetic Resonance, 2012, 14, .	1.6	5
78	Navigated DENSE strain imaging for post-radiofrequency ablation lesion assessment in the swine left atria. Europace, 2014, 16, 133-141.	0.7	5
79	Measuring extracellular volume fraction by MRI: First verification of values given by clinical sequences. Magnetic Resonance in Medicine, 2020, 83, 662-672.	1.9	5
80	Edema by T2-weighted imaging in salvaged myocardium is extracellular, not intracellular. Journal of Cardiovascular Magnetic Resonance, 2011, 13, .	1.6	4
81	Quantification of myocardial salvage by myocardial perfusion SPECT and cardiac magnetic resonance â€” reference standards for ECG development. Journal of Electrocardiology, 2014, 47, 525-534.	0.4	4
82	Using a modified 3D-printer for mapping the magnetic field of RF coils designed for fetal and neonatal imaging. Journal of Magnetic Resonance, 2016, 269, 146-151.	1.2	4
83	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
84	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
85	Myocardial extracellular volume imaging by CMR quantitatively characterizes myocardial infarction and subclinical myocardial fibrosis. Journal of Cardiovascular Magnetic Resonance, 2011, 13, .	1.6	3
86	Spatial Localization with Modified Fourier Series Windows. Investigative Radiology, 1996, 31, 611-618.	3.5	3
87	Alternate <i>k</i>â€space sampling in EPI: Compensation for <i>T</i>₂* and adjustable <i>T</i>₂ weighting. Magnetic Resonance in Medicine, 1996, 35, 617-620.	1.9	2
88	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
89	Cloud GPU-based simulations for SQUAREMR. Journal of Magnetic Resonance, 2017, 274, 80-88.	1.2	2
90	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

#	ARTICLE	IF	CITATIONS
91	Massively parallel CUDA simulations of cardiac and embryonic MRI on a cloud-based cluster. , 2015, , .		1
92	Validation and quantification of left ventricular function during exercise and free breathing from real-time cardiac magnetic resonance images. Scientific Reports, 2022, 12, 5611.	1.6	1
93	Computerized measurement of myocardial infarct size on contrast-enhanced magnetic resonance images. , 2005, , .		0
94	A high performance parallelizable MRI physics simulator with graphic processing unit technology. Journal of Cardiovascular Magnetic Resonance, 2013, 15, E45.	1.6	0
95	Accelerated MR physics simulations on multi-GPU systems. , 2013, , .		0
96	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
97	Simulating MR imaging for the human embryonic heart. Journal of Cardiovascular Magnetic Resonance, 2015, 17, P48.	1.6	0
98	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
99	The evolution of myocardium at risk by T2-STIR MR imaging the first week after acute myocardial ischemia. Journal of Cardiovascular Magnetic Resonance, 2016, 18, P94.	1.6	0
100	MR photography of 3D-MR images. Journal of Cardiovascular Magnetic Resonance, 2016, 18, P33.	1.6	0
101	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. Journal of Cardiovascular Magnetic Resonance, 2016, 18, P221.	1.6	0
102	Accelerated cloud and GPU-based simulations for quantification of relaxation times: an example with MOLLI. Journal of Cardiovascular Magnetic Resonance, 2016, 18, P42.	1.6	0
103	Validation of a T1 and T2 mapping software for quantitative MRI. Journal of Cardiovascular Magnetic Resonance, 2016, 18, W28.	1.6	0
104	Current and Emerging Technologies for Cardiovascular Imaging. Series in Bioengineering, 2019, , 13-59.	0.3	0
105	Quantitative MRI Techniques in Regional Myocardial Function. , 2008, , 123-154.		0