Antonio de Marvao

List of Publications by Year
in descending order

67 papers	3,662 citations	201385 27 h-index	143772 57 g-index
75 all docs	75 docs citations	75 times ranked	5636 citing authors

#	ARTICLE	IF	CITATIONS
1	Anatomically Constrained Neural Networks (ACNNs): Application to Cardiac Image Enhancement and Segmentation. IEEE Transactions on Medical Imaging, 2018, 37, 384-395.	5.4	493
2	Integrated allelic, transcriptional, and phenomic dissection of the cardiac effects of titin truncations in health and disease. Science Translational Medicine, 2015, 7, 270ra6.	5.8	375
3	Titin-truncating variants affect heart function in disease cohorts and the general population. Nature Genetics, 2017, 49, 46-53.	9.4	255
4	Genetic Variants Associated With Cancer Therapyâ€"Induced Cardiomyopathy. Circulation, 2019, 140, 31-41.	1.6	195
5	Deep-learning cardiac motion analysis for human survival prediction. Nature Machine Intelligence, 2019, 1, 95-104.	8.3	179
6	Machine Learning of Three-dimensional Right Ventricular Motion Enables Outcome Prediction in Pulmonary Hypertension: A Cardiac MR Imaging Study. Radiology, 2017, 283, 381-390.	3.6	161
7	Automatic 3D Bi-Ventricular Segmentation of Cardiac Images by a Shape-Refined Multi- Task Deep Learning Approach. IEEE Transactions on Medical Imaging, 2019, 38, 2151-2164.	5.4	155
8	Shared genetic pathways contribute to risk of hypertrophic and dilated cardiomyopathies with opposite directions of effect. Nature Genetics, 2021, 53, 128-134.	9.4	155
9	Cardiac Image Super-Resolution with Global Correspondence Using Multi-Atlas PatchMatch. Lecture Notes in Computer Science, 2013, 16, 9-16.	1.0	150
10	Reevaluating the Genetic Contribution of Monogenic Dilated Cardiomyopathy. Circulation, 2020, 141, 387-398.	1.6	148
11	A bi-ventricular cardiac atlas built from 1000+ high resolution MR images of healthy subjects and an analysis of shape and motion. Medical Image Analysis, 2015, 26, 133-145.	7.0	119
12	Multi-input Cardiac Image Super-Resolution Using Convolutional Neural Networks. Lecture Notes in Computer Science, 2016, , 246-254.	1.0	119
13	Quantitative approaches to variant classification increase the yield and precision of genetic testing in Mendelian diseases: the case of hypertrophic cardiomyopathy. Genome Medicine, 2019, 11, 5.	3.6	90
14	Genetic and functional insights into the fractal structure of the heart. Nature, 2020, 584, 589-594.	13.7	86
15	Body Fat Is Associated With Reduced Aortic Stiffness Until Middle Age. Hypertension, 2013, 61, 1322-1327.	1.3	80
16	Stratified Decision Forests for Accurate Anatomical Landmark Localization in Cardiac Images. IEEE Transactions on Medical Imaging, 2017, 36, 332-342.	5.4	56
17	Phenotypic Expression and Outcomes in Individuals With Rare Genetic Variants of Hypertrophic Cardiomyopathy. Journal of the American College of Cardiology, 2021, 78, 1097-1110.	1.2	55
18	Systematic large-scale assessment of the genetic architecture of left ventricular noncompaction reveals diverse etiologies. Genetics in Medicine, 2021, 23, 856-864.	1.1	45

#	Article	IF	Citations
19	Fractal analysis of left ventricular trabeculations is associated with impaired myocardial deformation in healthy Chinese. Journal of Cardiovascular Magnetic Resonance, 2016, 19, 102.	1.6	43
20	Population-based studies of myocardial hypertrophy: high resolution cardiovascular magnetic resonance atlases improve statistical power. Journal of Cardiovascular Magnetic Resonance, 2014, 16, 16.	1.6	42
21	Learning-Based Quality Control for Cardiac MR Images. IEEE Transactions on Medical Imaging, 2019, 38, 1127-1138.	5.4	42
22	Precursors of Hypertensive Heart Phenotype Develop in Healthy Adults. JACC: Cardiovascular Imaging, 2015, 8, 1260-1269.	2.3	40
23	Moderate Physical Activity in Healthy Adults Is Associated With Cardiac Remodeling. Circulation: Cardiovascular Imaging, 2016, 9, .	1.3	40
24	Disease-specific variant pathogenicity prediction significantly improves variant interpretation in inherited cardiac conditions. Genetics in Medicine, 2021, 23, 69-79.	1.1	39
25	Learning Interpretable Anatomical Features Through Deep Generative Models: Application to Cardiac Remodeling. Lecture Notes in Computer Science, 2018, , 464-471.	1.0	35
26	Artificial intelligence and the cardiologist: what you need to know for 2020. Heart, 2020, 106, 399-400.	1.2	35
27	Three-dimensional cardiovascular imaging-genetics: a mass univariate framework. Bioinformatics, 2018, 34, 97-103.	1.8	34
28	Cardiac structure and function in patients with schizophrenia taking antipsychotic drugs: an MRI study. Translational Psychiatry, 2019, 9, 163.	2.4	34
29	Explainable Anatomical Shape Analysis Through Deep Hierarchical Generative Models. IEEE Transactions on Medical Imaging, 2020, 39, 2088-2099.	5.4	34
30	Supplementation with Iron in Pulmonary Arterial Hypertension. Two Randomized Crossover Trials. Annals of the American Thoracic Society, 2021, 18, 981-988.	1.5	28
31	Relationship between body composition and left ventricular geometry using three dimensional cardiovascular magnetic resonance. Journal of Cardiovascular Magnetic Resonance, 2016, 18, 32.	1.6	23
32	Fractal Analysis of Right Ventricular Trabeculae in Pulmonary Hypertension. Radiology, 2018, 288, 386-395.	3.6	23
33	Heart disease in women: a narrative review. Anaesthesia, 2021, 76, 118-130.	1.8	23
34	Noninvasive Mapping of the Electrophysiological Substrate in Cardiac Amyloidosis and Its Relationship to Structural Abnormalities. Journal of the American Heart Association, 2019, 8, e012097.	1.6	21
35	Genetic Studies of Hypertrophic Cardiomyopathy in Singaporeans Identify Variants in <i>TNNI3</i> and <i>TNNT2</i> That Are Common in Chinese Patients. Circulation Genomic and Precision Medicine, 2020, 13, 424-434.	1.6	18
36	Pulmonary Artery Stiffness Is Independently Associated with Right Ventricular Mass and Function: A Cardiac MR Imaging Study. Radiology, 2016, 280, 398-404.	3.6	17

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37	Deep Nested Level Sets: Fully Automated Segmentation of Cardiac MR Images in Patients with Pulmonary Hypertension. Lecture Notes in Computer Science, 2018, , 595-603.	1.0	17
38	Correspondence on â€œACMG SF v3.0 list for reporting of secondary findings in clinical exome and genome sequencing: a policy statement of the American College of Medical Genetics and Genomics (ACMG)â€•byÂMiller etÂal. Genetics in Medicine, 2022, 24, 744-746.	1.1	17
39	Artificial Intelligence for Cardiac Imaging-Genetics Research. Frontiers in Cardiovascular Medicine, 2020, 6, 195.	1.1	16
40	Cardiac structure and function in schizophrenia: cardiac magnetic resonance imaging study. British Journal of Psychiatry, 2020, 217, 450-457.	1.7	15
41	Metabolic pathways associated with right ventricular adaptation to pulmonary hypertension: 3D analysis of cardiac magnetic resonance imaging. European Heart Journal Cardiovascular Imaging, 2019, 20, 668-676.	0.5	13
42	Genetic and environmental determinants of diastolic heart function. , 2022, 1, 361-371.		12
43	3D High-Resolution Cardiac Segmentation Reconstruction From 2D Views Using Conditional Variational Autoencoders. , 2019, , .		11
44	Adipose tissue dysfunction, inflammation, and insulin resistance: alternative pathways to cardiac remodelling in schizophrenia. A multimodal, caseâ€"control study. Translational Psychiatry, 2021, 11, 614.	2.4	10
45	Learning a Model-Driven Variational Network for Deformable Image Registration. IEEE Transactions on Medical Imaging, 2022, 41, 199-212.	5.4	9
46	Sex and regional differences in myocardial plasticity in aortic stenosis are revealed by 3D model machine learning. European Heart Journal Cardiovascular Imaging, 2019, 21, 417-427.	0.5	7
47	Paradoxical Higher Myocardial Wall Stress and Increased Cardiac Remodeling Despite Lower Mass in Females. Journal of the American Heart Association, 2020, 9, e014781.	1.6	7
48	A Comprehensive Approach for Learning-Based Fully-Automated Inter-slice Motion Correction for Short-Axis Cine Cardiac MR Image Stacks. Lecture Notes in Computer Science, 2018, , 268-276.	1.0	5
49	Nesterov Accelerated ADMM for Fast Diffeomorphic Image Registration. Lecture Notes in Computer Science, 2021, , 150-160.	1.0	4
50	Combining Deep Learning and Shape Priors for Bi-Ventricular Segmentation of Volumetric Cardiac Magnetic Resonance Images. Lecture Notes in Computer Science, 2018, , 258-267.	1.0	3
51	Learning-Based Heart Coverage Estimation for Short-Axis Cine Cardiac MR Images. Lecture Notes in Computer Science, 2017, , 73-82.	1.0	3
52	Prediction of Clinical Information from Cardiac MRI Using Manifold Learning. Lecture Notes in Computer Science, 2015, , 91-98.	1.0	3
53	Genome wide association analysis of the heart using high-resolution 3D cardiac MRI identifies new genetic loci underlying cardiac structure and function. Journal of Cardiovascular Magnetic Resonance, 2016, 18, Q63.	1.6	2
54	The Impact of Norepinephrine on Myocardial Perfusion in Critical Illness. Journal of the American Society of Echocardiography, 2021, 34, 1019-1020.	1.2	2

#	Article	IF	Citations
55	Respiratory Motion Correction for 2D Cine Cardiac MR Images using Probabilistic Edge Maps. , 0, , .		2
56	175â€…Aortopathy-causing mutations increase aortic stiffness in healthy individuals. Heart, 2015, 101, A99.1-A99.	1.2	1
57	Use of artificial intelligence to predict survival in pulmonary hypertension. Lancet, The, 2016, 387, S35.	6.3	1
58	Development of integrated high-resolution three-dimensional MRI and computational modelling techniques to identify novel genetic and anthropometric determinants of cardiac form and function. Lancet, The, 2016, 387, S36.	6.3	1
59	121â€…Re-evaluating the genetic contribution of monogenic dilated cardiomyopathy. , 2019, , .		1
60	Identifying the optimal regional predictor of right ventricular global function: a highâ€resolution threeâ€dimensional cardiac magnetic resonance study. Anaesthesia, 2019, 74, 312-320.	1.8	1
61	Utility of echocardiographic right ventricular subcostal strain in critical care. European Heart Journal Cardiovascular Imaging, 2021, , .	0.5	1
62	Peripartum cardiomyopathy and preâ€eclampsia: two tips of the same iceberg. European Journal of Heart Failure, 2021, 23, 2070-2072.	2.9	1
63	The Authors Reply:. JACC: Cardiovascular Imaging, 2016, 9, 763-764.	2.3	0
64	Exercise CMR: real-time assessment of cardiac performance with phase contrast imaging. Journal of Cardiovascular Magnetic Resonance, 2016, 18, T2.	1.6	0
65	5â€…Defining the effects of genetic variation using machine learning analysis of CMRS: a study in hypertrophic cardiomyopathy and in a healthy population. , 2018, , .		0
66	Reply to: RV dysfunction in Covid-19 ARDS: Is there a difference in the impact of mechanical ventilation and ECMO?. International Journal of Cardiology, 2021, 332, 239.	0.8	0
67	One-stage Multi-task Detector for 3D Cardiac MR Imaging. , 2021, , .		0