Declan P O'regan

List of Publications by Year
in descending order

133 papers	5,693 citations	108046 37 h-index	100535 70 g-index
144 all docs	144 docs citations	144 times ranked	9238 citing authors

#	Article	IF	Citations
1	Geometry and flow in ascending aortic aneurysms are influenced by left ventricular outflow tract orientation: Detecting increased wall shear stress on the outer curve of proximal aortic aneurysms. Journal of Thoracic and Cardiovascular Surgery, 2023, 166, 11-21.e1.	0.4	6
2	Learning a Model-Driven Variational Network for Deformable Image Registration. IEEE Transactions on Medical Imaging, 2022, 41, 199-212.	5.4	9
3	Deep Learning of the Retina Enables Phenome- and Genome-Wide Analyses of the Microvasculature. Circulation, 2022, 145, 134-150.	1.6	57
4	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
5	MulViMotion: Shape-Aware 3D Myocardial Motion Tracking From Multi-View Cardiac MRI. IEEE Transactions on Medical Imaging, 2022, 41, 1961-1974.	5.4	7
6	Evaluation of Computational Methodologies for Accurate Prediction of Wall Shear Stress and Turbulence Parameters in a Patient-Specific Aorta. Frontiers in Bioengineering and Biotechnology, 2022, 10, 836611.	2.0	10
7	Genetic and environmental determinants of diastolic heart function. , 2022, 1, 361-371.		12
8	PO-639-02 REPOLARISATION GRADIENTS DECREASE AFTER BARIATRIC SURGERY IN OBESE PATIENTS. Heart Rhythm, 2022, 19, S200.	0.3	0
9	Precision Phenotyping of Dilated Cardiomyopathy Using Multidimensional Data. Journal of the American College of Cardiology, 2022, 79, 2219-2232.	1.2	24
10	Validation of Artificial Intelligence Cardiac MRI Measurements: Relationship to Heart Catheterization and Mortality Prediction. Radiology, 2022, 305, 68-79.	3.6	12
11	Disease-specific variant pathogenicity prediction significantly improves variant interpretation in inherited cardiac conditions. Genetics in Medicine, 2021, 23, 69-79.	1.1	39
12	Nesterov Accelerated ADMM for Fast Diffeomorphic Image Registration. Lecture Notes in Computer Science, 2021, , 150-160.	1.0	4
13	Joint Motion Correction and Super Resolution for Cardiac Segmentation viaÂLatent Optimisation. Lecture Notes in Computer Science, 2021, , 14-24.	1.0	9
14	Regional variation in cardiovascular magnetic resonance service delivery across the UK. Heart, 2021, 107, 1974-1979.	1.2	21
15	Genome-wide association analysis in dilated cardiomyopathy reveals two new players in systolic heart failure on chromosomes 3p25.1 and 22q11.23. European Heart Journal, 2021, 42, 2000-2011.	1.0	49
16	Analysis of Turbulence Effects in a Patient-Specific Aorta with Aortic Valve Stenosis. Cardiovascular Engineering and Technology, 2021, 12, 438-453.	0.7	29
17	The relationship between synaptic density marker SV2A, glutamate and N-acetyl aspartate levels in healthy volunteers and schizophrenia: a multimodal PET and magnetic resonance spectroscopy brain imaging study. Translational Psychiatry, 2021, 11, 393.	2.4	27
18	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

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19	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
20	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
21	One-stage Multi-task Detector for 3D Cardiac MR Imaging. , 2021, , .		0
22	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
23	Phase-contrast magnetic resonance imaging and computational fluid dynamics assessment of thoracic aorta blood flow: a literature review. European Journal of Cardio-thoracic Surgery, 2020, 57, 438-446.	0.6	5
24	Putting machine learning into motion: applications in cardiovascular imaging. Clinical Radiology, 2020, 75, 33-37.	0.5	17
25	Explainable Anatomical Shape Analysis Through Deep Hierarchical Generative Models. IEEE Transactions on Medical Imaging, 2020, 39, 2088-2099.	5.4	34
26	The Egyptian Collaborative Cardiac Genomics (ECCO-GEN) Project: defining a healthy volunteer cohort. Npj Genomic Medicine, 2020, 5, 46.	1.7	5
27	A population-based phenome-wide association study of cardiac and aortic structure and function. Nature Medicine, 2020, 26, 1654-1662.	15.2	98
28	Genetic and functional insights into the fractal structure of the heart. Nature, 2020, 584, 589-594.	13.7	86
29	Artificial Intelligence for Cardiac Imaging-Genetics Research. Frontiers in Cardiovascular Medicine, 2020, 6, 195.	1.1	16
30	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
31	Reevaluating the Genetic Contribution of Monogenic Dilated Cardiomyopathy. Circulation, 2020, 141, 387-398.	1.6	148
32	Artificial intelligence and the cardiologist: what you need to know for 2020. Heart, 2020, 106, 399-400.	1.2	35
33	Cardiac structure and function in schizophrenia: cardiac magnetic resonance imaging study. British Journal of Psychiatry, 2020, 217, 450-457.	1.7	15
34	Prognostic impact of right ventricular mass change in patients with idiopathic pulmonary arterial hypertension. International Journal of Cardiology, 2020, 304, 172-174.	0.8	5
35	Motion-corrected multiparametric renal arterial spin labelling at 3 T: reproducibility and effect of vasodilator challenge. European Radiology, 2019, 29, 232-240.	2.3	14
36	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

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37	3D High-Resolution Cardiac Segmentation Reconstruction From 2D Views Using Conditional Variational Autoencoders. , 2019, , .		11
38	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
39	Sex-Dependent QRS Guidelines for Cardiac Resynchronization Therapy Using Computer Model Predictions. Biophysical Journal, 2019, 117, 2375-2381.	0.2	14
40	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
41	Cardiac structure and function in patients with schizophrenia taking antipsychotic drugs: an MRI study. Translational Psychiatry, 2019, 9, 163.	2.4	34
42	Genetic Variants Associated With Cancer Therapyâ€"Induced Cardiomyopathy. Circulation, 2019, 140, 31-41.	1.6	195
43	Deep-learning cardiac motion analysis for human survival prediction. Nature Machine Intelligence, 2019, 1, 95-104.	8.3	179
44	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
45	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
46	Learning-Based Quality Control for Cardiac MR Images. IEEE Transactions on Medical Imaging, 2019, 38, 1127-1138.	5.4	42
47	VS-Net: Variable Splitting Network for Accelerated Parallel MRI Reconstruction. Lecture Notes in Computer Science, 2019, , 713-722.	1.0	42
48	Enhancing Magnetic Resonance Imaging With Computational Fluid Dynamics. Journal of Engineering and Science in Medical Diagnostics and Therapy, 2019, 2, .	0.3	6
49	Anatomically Constrained Neural Networks (ACNNs): Application to Cardiac Image Enhancement and Segmentation. IEEE Transactions on Medical Imaging, 2018, 37, 384-395.	5.4	493
50	CardioClassifier: disease- and gene-specific computational decision support for clinical genome interpretation. Genetics in Medicine, 2018, 20, 1246-1254.	1.1	75
51	Three-dimensional cardiovascular imaging-genetics: a mass univariate framework. Bioinformatics, 2018, 34, 97-103.	1.8	34
52	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
53	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
54	Genetic Etiology for Alcohol-Induced Cardiac Toxicity. Journal of the American College of Cardiology, 2018, 71, 2293-2302.	1.2	182

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55	Exercise cardiac MRI unmasks right ventricular dysfunction in acute hypoxia and chronic pulmonary arterial hypertension. American Journal of Physiology - Heart and Circulatory Physiology, 2018, 315, H950-H957.	1.5	25
56	Fractal Analysis of Right Ventricular Trabeculae in Pulmonary Hypertension. Radiology, 2018, 288, 386-395.	3.6	23
57	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
58	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
59	On the choice of outlet boundary conditions for patient-specific analysis of aortic flow using computational fluid dynamics. Journal of Biomechanics, 2017, 60, 15-21.	0.9	116
60	Inhibition of pyruvate dehydrogenase kinase improves pulmonary arterial hypertension in genetically susceptible patients. Science Translational Medicine, 2017, 9, .	5.8	206
61	Titin-truncating variants affect heart function in disease cohorts and the general population. Nature Genetics, 2017, 49, 46-53.	9.4	255
62	Stratified Decision Forests for Accurate Anatomical Landmark Localization in Cardiac Images. IEEE Transactions on Medical Imaging, 2017, 36, 332-342.	5.4	56
63	Abnormal brain white matter microstructure is associated with both pre-hypertension and hypertension. PLoS ONE, 2017, 12, e0187600.	1.1	47
64	Exome-wide association study reveals novel susceptibility genes to sporadic dilated cardiomyopathy. PLoS ONE, 2017, 12, e0172995.	1.1	92
65	The Authors Reply:. JACC: Cardiovascular Imaging, 2016, 9, 763-764.	2.3	0
66	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
67	Stiff Arteries, Stiff Ventricles. Circulation: Cardiovascular Imaging, 2016, 9, .	1.3	2
68	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
69	Moderate Physical Activity in Healthy Adults Is Associated With Cardiac Remodeling. Circulation: Cardiovascular Imaging, 2016, 9, .	1.3	40
70	Use of artificial intelligence to predict survival in pulmonary hypertension. Lancet, The, 2016, 387, S35.	6.3	1
71	The safe practice of CT coronary angiography in adult patients in UK imaging departments. Clinical Radiology, 2016, 71, 722-728.	0.5	19
72	Acute myocardial infarction: susceptibility-weighted cardiac MRI for the detection ofÂreperfusion haemorrhage at 1.5 T. Clinical Radiology, 2016, 71, e150-e156.	0.5	3

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73	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
74	Assessment of Hemodynamic Conditions in the Aorta Following Root Replacement with Composite Valve-Conduit Graft. Annals of Biomedical Engineering, 2016, 44, 1392-1404.	1.3	17
75	Assessing exercise cardiac reserve using real-time cardiovascular magnetic resonance. Journal of Cardiovascular Magnetic Resonance, 2016, 19, 7.	1.6	35
76	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
77	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
78	175â€...Aortopathy-causing mutations increase aortic stiffness in healthy individuals. Heart, 2015, 101, A99.1-A99.	1.2	1
79	Precursors of Hypertensive Heart Phenotype Develop in Healthy Adults. JACC: Cardiovascular Imaging, 2015, 8, 1260-1269.	2.3	40
80	Left Main Bronchus Compression Due to Main Pulmonary Artery Dilatation in Pulmonary Hypertension: Two Case Reports. Pulmonary Circulation, 2015, 5, 723-725.	0.8	8
81	<i>ZBTB17</i> (<i>MIZ1</i>) Is Important for the Cardiac Stress Response and a Novel Candidate Gene for Cardiomyopathy and Heart Failure. Circulation: Cardiovascular Genetics, 2015, 8, 643-652.	5.1	12
82	Adverse changes in left ventricular structure begin at normotensive systolic blood pressures: a high resolution MRI study. Journal of Cardiovascular Magnetic Resonance, 2015, 17, M11.	1.6	0
83	Three dimensional modelling of the effect of arterial pulse wave velocity and body size on left ventricular geometry. Journal of Cardiovascular Magnetic Resonance, 2015, 17, O44.	1.6	0
84	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
85	In-vivo assessment of the morphology and hemodynamic functions of the BioValsalvaâ„¢ composite valve-conduit graft using cardiac magnetic resonance imaging and computational modelling technology. Journal of Cardiothoracic Surgery, 2014, 9, 193.	0.4	9
86	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
87	Multi-atlas Spectral PatchMatch: Application to Cardiac Image Segmentation. Lecture Notes in Computer Science, 2014, 17, 348-355.	1.0	7
88	A Probabilistic Patch-Based Label Fusion Model for Multi-Atlas Segmentation With Registration Refinement: Application to Cardiac MR Images. IEEE Transactions on Medical Imaging, 2013, 32, 1302-1315.	5.4	174
89	Impact of number of channels on RF shimming at 3T. Magnetic Resonance Materials in Physics, Biology, and Medicine, 2013, 26, 401-410.	1.1	41
90	Salvage assessment with cardiac MRI following acute myocardial infarction underestimates potential for recovery of systolic strain. European Radiology, 2013, 23, 1210-1217.	2.3	11

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91	MRIdb: Medical Image Management for Biobank Research. Journal of Digital Imaging, 2013, 26, 886-890.	1.6	24
92	Temporal sparse free-form deformations. Medical Image Analysis, 2013, 17, 779-789.	7.0	50
93	Investigating stable chest pain of suspected cardiac origin. BMJ, The, 2013, 347, f3940-f3940.	3.0	2
94	Cardiac Image Super-Resolution with Global Correspondence Using Multi-Atlas PatchMatch. Lecture Notes in Computer Science, 2013, 16, 9-16.	1.0	150
95	Body Fat Is Associated With Reduced Aortic Stiffness Until Middle Age. Hypertension, 2013, 61, 1322-1327.	1.3	80
96	Remodeling after acute myocardial infarction: mapping ventricular dilatation using three dimensional CMR image registration. Journal of Cardiovascular Magnetic Resonance, 2012, 14, 46.	1.6	24
97	Evolution and Current Applications of the Cabrol Procedure and Its Modifications. Annals of Thoracic Surgery, 2011, 91, 1636-1641.	0.7	43
98	Myocarditis or myocardial infarction? MRI can help. Heart, 2011, 97, 1283-1283.	1.2	3
99	Snapshot Inversion Recovery: An Optimized Single-Shot T1-weighted Inversion-Recovery Sequence for Improved Fetal Brain Anatomic Delineation. Radiology, 2011, 258, 229-235.	3.6	21
100	Subject-specific water-selective imaging using parallel transmission. Magnetic Resonance in Medicine, 2010, 63, 988-997.	1.9	16
101	So you want to beâ€¦ a radiologist. British Journal of Hospital Medicine (London, England: 2005), 2010, 71, M176-M176.	0.2	0
102	Assessment of severe reperfusion injury with T2* cardiac MRI in patients with acute myocardial infarction. Heart, 2010, 96, 1885-1891.	1.2	68
103	Right ventricular remodelling in pulmonary arterial hypertension with three-dimensional echocardiography: comparison with cardiac magnetic resonance imaging. European Journal of Echocardiography, 2010, 11, 64-73.	2.3	107
104	Reperfusion Hemorrhage Following Acute Myocardial Infarction: Assessment with T2* Mapping and Effect on Measuring the Area at Risk. Radiology, 2009, 250, 916-922.	3.6	97
105	Cardiac MRI of myocardial salvage at the peri-infarct border zones after primary coronary intervention. American Journal of Physiology - Heart and Circulatory Physiology, 2009, 297, H340-H346.	1.5	42
106	Cardiac T2* and lipid measurement at 3.0 T-initial experience. European Radiology, 2008, 18, 800-805.	2.3	19
107	Quantitative 3T MR Imaging of the Descending Thoracic Aorta: Patients with Familial Hypercholesterolemia Have an Increased Aortic Plaque Burden Despite Long-Term Lipid-lowering Therapy. Journal of Vascular and Interventional Radiology, 2008, 19, 1403-1408.	0.2	13
108	Liver Fat Content and T2*: Simultaneous Measurement by Using Breath-hold Multiecho MR Imaging at 3.0 Tâ€"Feasibility. Radiology, 2008, 247, 550-557.	3.6	114

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109	Three-Tesla Cardiac Magnetic Resonance Imaging for Preterm Infants. Pediatrics, 2007, 120, 78-83.	1.0	55
110	Myocardial infarction in sickle-cell disease. Lancet, The, 2007, 369, 246.	6.3	27
111	MRI at 3 Tesla detects no evidence for ischemic brain damage in intensively treated patients with homozygous familial hypercholesterolemia. Neuroradiology, 2007, 49, 927-931.	1.1	4
112	Magnetic resonance direct thrombus imaging at 3T field strength in patients with lower limb deep vein thrombosis: a feasibility study. Clinical Radiology, 2006, 61, 282-286.	0.5	9
113	Establishing a clinical cardiac MRI service. Clinical Radiology, 2006, 61, 211-224.	0.5	8
114	Interpretation of wrist and hand radiographs. British Journal of Hospital Medicine (London, England:) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 5	0.2	2
115	Interpretation of cervical spine radiographs. British Journal of Hospital Medicine (London, England:) Tj ETQq1 1 0.784314 rgBT /Overlock 1	0.2	0
116	So you want to be â€¦ a radiologist. British Journal of Hospital Medicine (London, England: 2005), 2006, 67, M19-M19.	0.2	0
117	Imaging of the pancreas. British Journal of Hospital Medicine (London, England: 2005), 2006, 67, 8-13.	0.2	0
118	x-f choice: Reconstruction of undersampled dynamic MRI by data-driven alias rejection applied to contrast-enhanced angiography. Magnetic Resonance in Medicine, 2006, 56, 811-823.	1.9	19
119	Interpretation of the shoulder radiograph. British Journal of Hospital Medicine (London, England:) Tj ETQq1 1 0.784314 rgBT /Overlock 1	0.2	3
120	Interpretation of ankle and foot radiographs. British Journal of Hospital Medicine (London, England:) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 5	0.2	2
121	Interpretation of paediatric trauma. British Journal of Hospital Medicine (London, England: 2005), 2006, 67, M134-M137.	0.2	0
122	Interpretation of thoracolumbar spine radiographs. British Journal of Hospital Medicine (London,) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 2	0.2	0
123	Interpretation of pelvis and hip radiographs. British Journal of Hospital Medicine (London, England:) Tj ETQq1 1 0.784314 rgBT /Overlock	0.2	1
124	Interpretation of knee radiographs. British Journal of Hospital Medicine (London, England: 2005), 2006, 67, M150-M152.	0.2	0
125	Interpretation of elbow and forearm radiographs. British Journal of Hospital Medicine (London,) Tj ETQq1 1 0.784314 rgBT /Overlock 10	0.2	1
126	Interpretation of the chest radiograph in the casualty department. British Journal of Hospital Medicine (London, England: 2005), 2005, 66, M8-M13.	0.2	0

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127	Interpretation of skull and facial radiographs. British Journal of Hospital Medicine (London, England:) Tj ETQq1 1 0.784314 rgBT /Overlo	0.2	0
128	Imaging of the jaundiced patient. British Journal of Hospital Medicine (London, England: 2005), 2005, 66, 17-22.	0.2	6
129	Ultrasonography of the Shoulder. Ultrasound, 2005, 13, 48-53.	0.3	0
130	A comparison of MR cholangiopancreatography at 1.5 and 3.0 Tesla. British Journal of Radiology, 2005, 78, 894-898.	1.0	36
131	Interpretation of the abdominal radiograph: 1. British Journal of Hospital Medicine (London, England:) Tj ETQq1 1 0.784314 rgBT /Overlo	0.2	1
132	Interpretation of the abdominal radiograph: 2. British Journal of Hospital Medicine (London, England:) Tj ETQq0 0 0 rgBT /Overlock 10 Tf	0.2	0
133	Respiratory Motion Correction for 2D Cine Cardiac MR Images using Probabilistic Edge Maps. , 0, , .		2