Petter Dyverfeldt

List of Publications by Year in descending order

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		186265	168389
82	2,960	28	53
papers	citations	h-index	g-index

85	85	85	2331
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	4D flow cardiovascular magnetic resonance consensus statement. Journal of Cardiovascular Magnetic Resonance, 2015, 17, 72.	3.3	642
2	Semi-automatic quantification of 4D left ventricular blood flow. Journal of Cardiovascular Magnetic Resonance, 2010, 12, 9.	3.3	170
3	Quantification of intravoxel velocity standard deviation and turbulence intensity by generalizing phase-contrast MRI. Magnetic Resonance in Medicine, 2006, 56, 850-858.	3.0	128
4	Assessment of fluctuating velocities in disturbed cardiovascular blood flow: In vivo feasibility of generalized phaseâ€contrast MRI. Journal of Magnetic Resonance Imaging, 2008, 28, 655-663.	3.4	128
5	Magnetic Resonance Measurement of Turbulent Kinetic Energy for the Estimation of Irreversible Pressure Loss in Aortic Stenosis. JACC: Cardiovascular Imaging, 2013, 6, 64-71.	5.3	122
6	Comparison of fourâ€dimensional flow parameters for quantification of flow eccentricity in the ascending aorta. Journal of Magnetic Resonance Imaging, 2011, 34, 1226-1230.	3.4	121
7	4-D blood flow in the human right ventricle. American Journal of Physiology - Heart and Circulatory Physiology, 2011, 301, H2344-H2350.	3.2	111
8	Quantification of presystolic blood flow organization and energetics in the human left ventricle. American Journal of Physiology - Heart and Circulatory Physiology, 2011, 300, H2135-H2141.	3.2	110
9	Assessment of the accuracy of MRI wall shear stress estimation using numerical simulations. Journal of Magnetic Resonance Imaging, 2012, 36, 128-138.	3.4	110
10	On MRI turbulence quantification. Magnetic Resonance Imaging, 2009, 27, 913-922.	1.8	88
11	MRI hemodynamic markers of progressive bicuspid aortic valveâ€related aortic disease. Journal of Magnetic Resonance Imaging, 2014, 40, 140-145.	3.4	78
12	Turbulent kinetic energy in normal and myopathic left ventricles. Journal of Magnetic Resonance Imaging, 2015, 41, 1021-1029.	3.4	62
13	In Vivo Validation of Numerical Prediction for Turbulence Intensity in an Aortic Coarctation. Annals of Biomedical Engineering, 2012, 40, 860-870.	2.5	56
14	Altered Diastolic Flow Patterns and Kinetic Energy in Subtle Left Ventricular Remodeling and Dysfunction Detected by 4D Flow MRI. PLoS ONE, 2016, 11, e0161391.	2.5	53
15	Estimating the irreversible pressure drop across a stenosis by quantifying turbulence production using 4D Flow MRI. Scientific Reports, 2017, 7, 46618.	3.3	50
16	Age-Related Vascular Changes Affect Turbulence in Aortic Blood Flow. Frontiers in Physiology, 2018, 9, 36.	2.8	50
17	Atlas-based analysis of 4D flow CMR: Automated vessel segmentation and flow quantification. Journal of Cardiovascular Magnetic Resonance, 2015, 17, 87.	3.3	48
18	Simulation of phase contrast MRI of turbulent flow. Magnetic Resonance in Medicine, 2010, 64, 1039-1046.	3.0	46

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19	Pulse wave velocity with 4D flow MRI: Systematic differences and age-related regional vascular stiffness. Magnetic Resonance Imaging, 2014, 32, 1266-1271.	1.8	46
20	4D Flow MRIâ€based pressure loss estimation in stenotic flows: Evaluation using numerical simulations. Magnetic Resonance in Medicine, 2016, 75, 1808-1821.	3.0	45
21	Cardiothoracic Magnetic Resonance Flow Imaging. Journal of Thoracic Imaging, 2013, 28, 217-230.	1.5	42
22	Left Ventricular Flow Analysis. Circulation: Cardiovascular Imaging, 2019, 12, e008130.	2.6	41
23	4D flow MRI can detect subtle right ventricular dysfunction in primary left ventricular disease. Journal of Magnetic Resonance Imaging, 2016, 43, 558-565.	3.4	40
24	In vitro assessment of flow patterns and turbulence intensity in prosthetic heart valves using generalized phaseâ€contrast MRI. Journal of Magnetic Resonance Imaging, 2010, 31, 1075-1080.	3.4	38
25	Hemodynamic aspects of mitral regurgitation assessed by generalized phaseâ€contrast MRI. Journal of Magnetic Resonance Imaging, 2011, 33, 582-588.	3.4	36
26	Test-retest variability of left ventricular 4D flow cardiovascular magnetic resonance measurements in healthy subjects. Journal of Cardiovascular Magnetic Resonance, 2018, 20, 15.	3.3	35
27	Turbulent kinetic energy in the right ventricle: Potential MR marker for risk stratification of adults with repaired Tetralogy of Fallot. Journal of Magnetic Resonance Imaging, 2018, 47, 1043-1053.	3.4	34
28	Assessment of turbulent viscous stress using ICOSA 4D Flow MRI for prediction of hemodynamic blood damage. Scientific Reports, 2016, 6, 39773.	3.3	31
29	Validation of pressure drop assessment using 4D flow MRIâ€based turbulence production in various shapes of aortic stenoses. Magnetic Resonance in Medicine, 2019, 81, 893-906.	3.0	27
30	Comparison of respiratory motion suppression techniques for 4D flow MRI. Magnetic Resonance in Medicine, 2017, 78, 1877-1882.	3.0	26
31	Post-stenotic dilation: Evaluation of ascending aortic dilation with 4D flow MR imaging. International Journal of Cardiology, 2012, 156, e40-e42.	1.7	22
32	Retrospectively gated intracardiac 4<scp>D</scp> flow <scp>MRI</scp> using spiral trajectories. Magnetic Resonance in Medicine, 2016, 75, 196-206.	3.0	22
33	Assessment of Reynolds stress components and turbulent pressure loss using 4D flow MRI with extended motion encoding. Magnetic Resonance in Medicine, 2018, 79, 1962-1971.	3.0	22
34	Assessment of turbulent flow effects on the vessel wall using four-dimensional flow MRI. Magnetic Resonance in Medicine, 2017, 77, 2310-2319.	3.0	21
35	A novel MRI framework for the quantification of any moment of arbitrary velocity distributions. Magnetic Resonance in Medicine, 2011, 65, 725-731.	3.0	20
36	Quantification of turbulence and velocity in stenotic flow using spiral threeâ€dimensional phaseâ€contrast MRI. Magnetic Resonance in Medicine, 2016, 75, 1249-1255.	3.0	20

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37	Wall shear stress and relative residence time as potential risk factors for abdominal aortic aneurysms in males: a 4D flow cardiovascular magnetic resonance caseâ€“control study. Journal of Cardiovascular Magnetic Resonance, 2022, 24, 18.	3.3	19
38	Improving Blood Flow Simulations by Incorporating Measured Subject-Specific Wall Motion. Cardiovascular Engineering and Technology, 2014, 5, 261-269.	1.6	18
39	Highly accelerated aortic 4D flow MR imaging with variable-density random undersampling. Magnetic Resonance Imaging, 2014, 32, 1012-1020.	1.8	17
40	Extended 3D approach for quantification of abnormal ascending aortic flow. Magnetic Resonance Imaging, 2015, 33, 695-700.	1.8	17
41	Visualizing and quantifying flow stasis in abdominal aortic aneurysms in men using 4D flow MRI. Magnetic Resonance Imaging, 2019, 57, 103-110.	1.8	16
42	4D Flow MRI quantification of blood flow patterns, turbulence and pressure drop in normal and stenotic prosthetic heart valves. Magnetic Resonance Imaging, 2019, 55, 118-127.	1.8	16
43	Reduction of motion artifacts in carotid MRI using freeâ€induction decay navigators. Journal of Magnetic Resonance Imaging, 2014, 40, 214-220.	3.4	13
44	Fixed volume particle trace emission for the analysis of left atrial blood flow using 4D Flow MRI. Magnetic Resonance Imaging, 2018, 47, 83-88.	1.8	11
45	Automated segmentation of the individual branches of the carotid arteries in contrast-enhanced MR angiography using DeepMedic. BMC Medical Imaging, 2021, 21, 38.	2.7	10
46	Quantitative fat and R2* mapping in vivo to measure lipidâ€rich necrotic core and intraplaque hemorrhage in carotid atherosclerosis. Magnetic Resonance in Medicine, 2017, 78, 285-296.	3.0	9
47	In vitro experiments on ICOSA6 4D flow MRI measurement for the quantification of velocity and turbulence parameters. Magnetic Resonance Imaging, 2020, 72, 49-60.	1.8	8
48	Data Quality and Optimal Background Correction Order of Respiratoryâ€Gated k â€Space Segmented Spoiled Gradient Echo (SGRE) and Echo Planar Imaging (EPI)â€Based 4D Flow MRI. Journal of Magnetic Resonance Imaging, 2020, 51, 885-896.	3.4	7
49	Clinical Applications of Aortic 4D Flow Imaging. Current Cardiovascular Imaging Reports, 2013, 6, 128-139.	0.6	6
50	Exploring the Relationships Between Hemodynamic Stresses in the Carotid Arteries. Frontiers in Cardiovascular Medicine, 2020, 7, 617755.	2.4	6
51	Turbulent Intensity of Blood Flow in the Healthy Aorta Increases With Dobutamine Stress and is Related to Cardiac Output. Frontiers in Physiology, 2022, 13, .	2.8	6
52	Reproducibility of quantitative analysis of aortic 4D flow data. Journal of Cardiovascular Magnetic Resonance, 2013, 15, .	3.3	4
53	Towards Automated Quantification of Vessel Wall Composition Using MRI. Journal of Magnetic Resonance Imaging, 2020, 52, 710-719.	3.4	4
54	In-vitro and In-Vivo Assessment of 4D Flow MRI Reynolds Stress Mapping for Pulsatile Blood Flow. Frontiers in Bioengineering and Biotechnology, 2021, 9, 774954.	4.1	4

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55	Visualization and quantification of 4D blood flow distribution and energetics in the right ventricle. Journal of Cardiovascular Magnetic Resonance, 2011, 13, .	3.3	3
56	Comprehensive Evaluation of Culture-Negative Endocarditis with Use of Cardiac and 4-Dimensional-Flow Magnetic Resonance Imaging. Texas Heart Institute Journal, 2014, 41, 351-352.	0.3	3
57	Aortic stiffness with bicuspid aortic valve is variable and not predicted by conventional parameters in young patients. Journal of Cardiovascular Magnetic Resonance, 2015, 17, Q80.	3.3	3
58	Letter by Dyverfeldt and Ebbers regarding article â€œEstimation of turbulent kinetic energy using 4D phase-contrast MRI: Effect of scan parameters and target vessel sizeâ€• Magnetic Resonance Imaging, 2016, 34, 1226.	1.8	3
59	Ascending Aortic Stiffness with Bicuspid Aortic Valve is Variable and Not Predicted by Conventional Parameters in Young Patients. Journal of Heart Valve Disease, 2016, 25, 270-280.	0.5	3
60	The kinetic energies of left ventricular 4D flow components correlate with established markers of prognosis and represent novel imaging biomarkers in both ischaemic and dilated cardiomyopathy. Journal of Cardiovascular Magnetic Resonance, 2016, 18, O68.	3.3	2
61	18Fluorodeoxyglucose uptake in relation to fat fraction and R2* in atherosclerotic plaques, using PET/MRI: a pilot study. Scientific Reports, 2021, 11, 14217.	3.3	2
62	Quantitative Magnetic Resonance Imaging Assessment of the Relationships Between Fat Fraction and R2 * Inside Carotid Plaques, and Circulating Lipoproteins. Journal of Magnetic Resonance Imaging, 2021, , .	3.4	2
63	Quantification of 4D left ventricular blood flow organization in normal and failing hearts. Journal of Cardiovascular Magnetic Resonance, 2010, 12, .	3.3	1
64	Accuracy of MRI wall shear stress estimation. Journal of Cardiovascular Magnetic Resonance, 2012, 14, .	3.3	1
65	Turbulent kinetic energy in the ascending aorta is greater in bicuspid than tricuspid aortic valve stenosis. Journal of Cardiovascular Magnetic Resonance, 2015, 17, O88.	3.3	1
66	Reproducibility and variability of left ventricular 4D flow in healthy volunteers. Journal of Cardiovascular Magnetic Resonance, 2015, 17, P7.	3.3	1
67	4D flow CMR can detect subtle right ventricular dysfunction in primary left ventricular disease. Journal of Cardiovascular Magnetic Resonance, 2015, 17, Q4.	3.3	1
68	Editorial for â€œSegmentation of the Aorta and Pulmonary Arteries Based on <scp>4D</scp> Flow <scp>MRI</scp> in the Pediatric Setting Using Fully Automated Multiâ€Site, Multiâ€Vendor, and Multiâ€Label Dense Uâ€Netâ€• Journal of Magnetic Resonance Imaging, 2022, 55, 1681-1682.	3.4	1
69	143 Multidimensional turbulence mapping in mitral insufficiency. Journal of Cardiovascular Magnetic Resonance, 2008, 10, .	3.3	0
70	Assessment of diastolic efficiency of blood transit through normal and dysfunctional left ventricles. Journal of Cardiovascular Magnetic Resonance, 2010, 12, .	3.3	0
71	Diastolic preparation for left ventricular ejection - A marker of inefficiency of the failing heart. Journal of Cardiovascular Magnetic Resonance, 2011, 13, .	3.3	0
72	Motion compensated carotid MRI using FID navigators. Journal of Cardiovascular Magnetic Resonance, 2013, 15, P242.	3.3	0

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73	Turbulent kinetic energy from CMR identifies disturbed diastolic flow in myopathic left ventricles. Journal of Cardiovascular Magnetic Resonance, 2013, 15, E114.	3.3	0
74	Turbulence mapping: a new CMR approach for assessment of aortic stenosis. Journal of Cardiovascular Magnetic Resonance, 2013, 15, P110.	3.3	0
75	Accelerated 4D flow imaging with variable-density cartesian undersampling and parallel imaging reconstruction. Journal of Cardiovascular Magnetic Resonance, 2013, 15, P11.	3.3	0
76	Improved quantification of abnormal aortic flow in 3D compared to standard 2D approach. Journal of Cardiovascular Magnetic Resonance, 2013, 15, P232.	3.3	0
77	Letter by Hope et al Regarding Article, â€œBicuspid Aortic Cusp Fusion Morphology Alters Aortic Three-Dimensional Outflow Patterns, Wall Shear Stress, and Expression of Aortopathyâ€• Circulation, 2014, 130, e170.	1.6	0
78	Automatic multi-vessel volume flow calculation with 4D flow CMR. Journal of Cardiovascular Magnetic Resonance, 2015, 17, O45.	3.3	0
79	Left ventricular kinetic energy as a marker of mechanical dyssynchrony in failing hearts with LBBB: a 4D flow CMR study. Journal of Cardiovascular Magnetic Resonance, 2016, 18, O91.	3.3	0
80	112â€…Evaluation of patients with left ventricular thrombus using intra-cardiac blood visualisation with 4d flow. Heart, 2017, 103, A83-A84.	2.9	0
81	Abstract 20143: Direct in vivo Quantification of Intraplaque Hemorrhage and Fat in Atherosclerosis by Magnetic Resonance Imaging. Circulation, 2014, 130, .	1.6	0
82	Abstract 13435: Deranged Intra-Cardiac Blood Flow Components and Kinetic Energy in Dilated Cardiomyopathy Are an Additional Marker of Disease Severity and Correlate With Established Markers of Prognosis. Circulation, 2015, 132, .	1.6	0