James J Pilla

List of Publications by Year
in descending order

48 papers	1,410 citations	304743 22 h-index	330143 37 g-index
50 all docs	50 docs citations	50 times ranked	1805 citing authors

#	Article	IF	Citations
1	A technique for in vivo mapping of myocardial creatine kinase metabolism. Nature Medicine, 2014, 20, 209-214.	30.7	168
2	Injectable Shear-Thinning Hydrogels for Minimally Invasive Delivery to Infarcted Myocardium to Limit Left Ventricular Remodeling. Circulation: Cardiovascular Interventions, 2016, 9, .	3.9	98
3	Cardiac Support Device Modifies Left Ventricular Geometry and Myocardial Structure After Myocardial Infarction. Circulation, 2005, 112, 1274-1283.	1.6	93
4	MRI evaluation of injectable hyaluronic acid-based hydrogel therapy to limit ventricular remodeling after myocardial infarction. Biomaterials, 2015, 69, 65-75.	11.4	91
5	In vivo chronic myocardial infarction characterization by spin locked cardiovascular magnetic resonance. Journal of Cardiovascular Magnetic Resonance, 2012, 14, 37.	3.3	65
6	Estimating passive mechanical properties in a myocardial infarction using MRI and finite element simulations. Biomechanics and Modeling in Mechanobiology, 2015, 14, 633-647.	2.8	53
7	Ventricular Restraint Prevents Infarct Expansion and Improves Borderzone Function After Myocardial Infarction: A Study Using Magnetic Resonance Imaging, Three-Dimensional Surface Modeling, and Myocardial Tagging. Annals of Thoracic Surgery, 2007, 84, 2004-2010.	1.3	50
8	Deformation analysis of 3D tagged cardiac images using an optical flow method. Journal of Cardiovascular Magnetic Resonance, 2010, 12, 19.	3.3	46
9	Rotating frame spin lattice relaxation in a swine model of chronic, left ventricular myocardial infarction. Magnetic Resonance in Medicine, 2010, 64, 1453-1460.	3.0	43
10	Noninvasive Measurement of the Human Brachial Artery Pressureâ€"Area Relation in Collapse and Hypertension. Annals of Biomedical Engineering, 1998, 26, 965-974.	2.5	42
11	Early Postinfarction Ventricular Restraint Improves Borderzone Wall Thickening Dynamics During Remodeling. Annals of Thoracic Surgery, 2005, 80, 2257-2262.	1.3	42
12	Preclinical Evaluation of the Engineered Stem Cell Chemokine Stromal Cellâ€"Derived Factor 1Î± Analog in a Translational Ovine Myocardial Infarction Model. Circulation Research, 2014, 114, 650-659.	4.5	42
13	Stabilization of Chronic Remodeling by Asynchronous Cardiomyoplasty in Dilated Cardiomyopathy. Circulation, 1997, 96, 3665-3671.	1.6	41
14	Dynamic cardiomyoplasty: Its chronic and acute effects on the failing heart. Journal of Thoracic and Cardiovascular Surgery, 1997, 114, 169-178.	0.8	37
15	Ventricular Constraint Using the Acorn Cardiac Support Device Reduces Myocardial Akinetic Area in an Ovine Model of Acute Infarction. Circulation, 2002, 106, .	1.6	35
16	Ventricular constraint using the acorn cardiac support device reduces myocardial akinetic area in an ovine model of acute infarction. Circulation, 2002, 106, I207-11.	1.6	35
17	The Influence of Mitral Annuloplasty on Left Ventricular Flow Dynamics. Annals of Thoracic Surgery, 2015, 100, 114-121.	1.3	34
18	Theoretic Impact of Infarct Compliance on Left Ventricular Function. Annals of Thoracic Surgery, 2009, 87, 803-810.	1.3	32

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19	Passive ventricular constraint to improve left ventricular function and mechanics in an ovine model of heart failure secondary to acute myocardial infarction. Journal of Thoracic and Cardiovascular Surgery, 2003, 126, 1467-1475.	0.8	29
20	Infarct Size Reduction and Attenuation of Global Left Ventricular Remodeling with the CorCapTM Cardiac Support Device Following Acute Myocardial Infarction in Sheep. Heart Failure Reviews, 2005, 10, 125-139.	3.9	28
21	Temporal Changes in Infarct Material Properties: An InÂVivo Assessment Using Magnetic Resonance Imaging and Finite Element Simulations. Annals of Thoracic Surgery, 2015, 100, 582-589.	1.3	28
22	Assessment of myocardial injury after reperfused infarction by T1Ï•cardiovascular magnetic resonance. Journal of Cardiovascular Magnetic Resonance, 2016, 19, 17.	3.3	24
23	Iron imaging in myocardial infarction reperfusion injury. Nature Communications, 2020, 11, 3273.	12.8	22
24	Regional Myocardial Three-Dimensional Principal Strains During Postinfarction Remodeling. Annals of Thoracic Surgery, 2015, 99, 770-778.	1.3	21
25	Optimized Local Infarct Restraint Improves Left Ventricular Function and Limits Remodeling. Annals of Thoracic Surgery, 2013, 95, 155-162.	1.3	19
26	Cardiac-respiratory gating method for magnetic resonance imaging of the heart. Magnetic Resonance in Medicine, 2000, 43, 314-318.	3.0	18
27	Real-Time Magnetic Resonance Imaging TechniqueÂfor Determining Left Ventricle Pressure-Volume Loops. Annals of Thoracic Surgery, 2014, 97, 1597-1603.	1.3	18
28	Effects of using the unloaded configuration in predicting the <i>in vivo</i> diastolic properties of the heart. Computer Methods in Biomechanics and Biomedical Engineering, 2016, 19, 1714-1720.	1.6	18
29	Computational Modeling of Healthy Myocardium in Diastole. Annals of Biomedical Engineering, 2016, 44, 980-992.	2.5	18
30	Effects of hydrogel injection on borderzone contractility post-myocardial infarction. Biomechanics and Modeling in Mechanobiology, 2018, 17, 1533-1542.	2.8	18
31	MR COMPATIBLE GATING SYSTEM FOR IMAGING OF DYNAMIC CARDIOMYOPLASTY AND CARDIAC PACING. ASAIO Journal, 1999, 45, 131.	1.6	14
32	Injectable Microsphere Gel Progressively ImprovesÂGlobal Ventricular Function, Regional Contractile Strain, and Mitral Regurgitation AfterÂMyocardial Infarction. Annals of Thoracic Surgery, 2015, 99, 597-603.	1.3	10
33	Computational Investigation of Transmural Differences in Left Ventricular Contractility. Journal of Biomechanical Engineering, 2016, 138, .	1.3	10
34	Self-gated MRI of multiple beat morphologies in the presence of arrhythmias. Magnetic Resonance in Medicine, 2017, 78, 678-688.	3.0	9
35	Determination of Global Function and Regional Mechanics of Dynamic Cardiomyoplasty Using Magnetic Resonance Imaging. ASAIO Journal, 1998, 44, M491-M495.	1.6	8
36	Assessment of Synchronized Direct Mechanical Ventricular Actuation in a Canine Model of Left Ventricular Dysfunction. ASAIO Journal, 2000, 46, 756-760.	1.6	6

#	ARTICLE	IF	CITATIONS
37	Directed Epicardial Assistance in Ischemic Cardiomyopathy: Flow and Function Using CardiacÂMagnetic Resonance Imaging. Annals of Thoracic Surgery, 2013, 96, 577-585.	1.3	6
38	Modified Rapid Ventricular Pacing. ASAIO Journal, 1998, 44, 799-803.	1.6	5
39	Dynamic Cardiomyoplasty Decreases Myocardial Workload as Assessed by Tissue Tagged MRI. ASAIO Journal, 2000, 46, 556-562.	1.6	4
40	Magnetic susceptibility and R2* of myocardial reperfusion injury at 3T and 7T. Magnetic Resonance in Medicine, 2022, 87, 323-336.	3.0	4
41	Minimally Invasive Delivery of a Novel Direct Epicardial Assist Device in a Porcine Heart Failure Model. Innovations: Technology and Techniques in Cardiothoracic and Vascular Surgery, 2014, 9, 16-21.	0.9	3
42	Slice-by-Slice Pressure-Volume Loop Analysis Demonstrates Native Differences in Regional Cardiac Contractility and Response to Inotropic Agents. Annals of Thoracic Surgery, 2016, 102, 796-802.	1.3	3
43	Design of a dynamic heart phantom for magnetic resonance imaging. , 2009, , .		2
44	Closed-loop control of k-space sampling via physiologic feedback for cine MRI. PLoS ONE, 2020, 15, e0244286.	2.5	2
45	Development of a dynamic heart phantom prototype for Magnetic Resonance Imaging. , 2010, , .		1
46	Continuous adaptive radial sampling of k-space from real-time physiologic feedback in MRI. Journal of Cardiovascular Magnetic Resonance, 2015, 17, P37.	3.3	1
47	A Novel Approach to Quantify Alterations in Ventricular Principal Strain Vectors Secondary to Ischemic Injury. , 2010, , .		0
48	Minimally Invasive Delivery of a Novel Direct Epicardial Assist Device in a Porcine Heart Failure Model. Innovations: Technology and Techniques in Cardiothoracic and Vascular Surgery, 2014, 9, 16-21.	0.9	0