

Neelakantan Saikrishnan

List of Publications by Citations

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

24
papers

686
citations

15
h-index

25
g-index

25
ext. papers

767
ext. citations

4.4
avg, IF

3.96
L-index

#	Paper	IF	Citations
24	Accurate assessment of aortic stenosis: a review of diagnostic modalities and hemodynamics. <i>Circulation</i> , 2014 , 129, 244-53	16.7	81
23	Experimental measurement of dynamic fluid shear stress on the aortic surface of the aortic valve leaflet. <i>Biomechanics and Modeling in Mechanobiology</i> , 2012 , 11, 171-82	3.8	75
22	In vitro characterization of bicuspid aortic valve hemodynamics using particle image velocimetry. <i>Annals of Biomedical Engineering</i> , 2012 , 40, 1760-75	4.7	64
21	Experimental measurement of dynamic fluid shear stress on the ventricular surface of the aortic valve leaflet. <i>Biomechanics and Modeling in Mechanobiology</i> , 2012 , 11, 231-44	3.8	58
20	An in vitro evaluation of the impact of eccentric deployment on transcatheter aortic valve hemodynamics. <i>Annals of Biomedical Engineering</i> , 2014 , 42, 1195-206	4.7	46
19	A novel left heart simulator for the multi-modality characterization of native mitral valve geometry and fluid mechanics. <i>Annals of Biomedical Engineering</i> , 2013 , 41, 305-15	4.7	38
18	Total ellipse of the heart valve: the impact of eccentric stent distortion on the regional dynamic deformation of pericardial tissue leaflets of a transcatheter aortic valve replacement. <i>Journal of the Royal Society Interface</i> , 2015 , 12, 20150737	4.1	33
17	In vitro mitral valve simulator mimics systolic valvular function of chronic ischemic mitral regurgitation ovine model. <i>Annals of Thoracic Surgery</i> , 2013 , 95, 825-30	2.7	31
16	Assessment of dual plane PIV measurements in wall turbulence using DNS data. <i>Experiments in Fluids</i> , 2006 , 41, 265-278	2.5	30
15	Bicuspid aortic valves are associated with increased wall and turbulence shear stress levels compared to trileaflet aortic valves. <i>Biomechanics and Modeling in Mechanobiology</i> , 2015 , 14, 577-88	3.8	28
14	The congenital bicuspid aortic valve can experience high-frequency unsteady shear stresses on its leaflet surface. <i>American Journal of Physiology - Heart and Circulatory Physiology</i> , 2012 , 303, H721-31	5.2	28
13	Experimental technique of measuring dynamic fluid shear stress on the aortic surface of the aortic valve leaflet. <i>Journal of Biomechanical Engineering</i> , 2011 , 133, 061007	2.1	27
12	Reynolds number effects on scale energy balance in wall turbulence. <i>Physics of Fluids</i> , 2012 , 24, 015101	4.4	24
11	Experimental Assessment of Flow Fields Associated with Heart Valve Prostheses Using Particle Image Velocimetry (PIV): Recommendations for Best Practices. <i>Cardiovascular Engineering and Technology</i> , 2018 , 9, 273-287	2.2	22
10	Micro particle image velocimetry measurements of steady diastolic leakage flow in the hinge of a St. Jude Medical regent mechanical heart valve. <i>Annals of Biomedical Engineering</i> , 2014 , 42, 526-40	4.7	19
9	Effect of hinge gap width of a St. Jude medical bileaflet mechanical heart valve on blood damage potential—an in vitro micro particle image velocimetry study. <i>Journal of Biomechanical Engineering</i> , 2014 , 136, 091008	2.1	13
8	In-Vitro Pulsatile Flow Testing of Prosthetic Heart Valves: A Round-Robin Study by the ISO Cardiac Valves Working Group. <i>Cardiovascular Engineering and Technology</i> , 2019 , 10, 397-422	2.2	12

7	Accuracy of a mitral valve segmentation method using J-splines for real-time 3D echocardiography data. <i>Annals of Biomedical Engineering</i> , 2013 , 41, 1258-68	4.7	12
6	Hemodynamics of the Boston Scientific Lotus [®] Valve: An In Vitro Study. <i>Cardiovascular Engineering and Technology</i> , 2013 , 4, 427-439	2.2	11
5	Design of a pulsatile flow facility to evaluate thrombogenic potential of implantable cardiac devices. <i>Journal of Biomechanical Engineering</i> , 2015 , 137, 045001	2.1	10
4	Peak mechanical loads induced in the in vitro edge-to-edge repair of posterior leaflet flail. <i>Annals of Thoracic Surgery</i> , 2012 , 94, 1446-53	2.7	10
3	Isolated effect of geometry on mitral valve function for in silico model development. <i>Computer Methods in Biomechanics and Biomedical Engineering</i> , 2015 , 18, 618-27	2.1	7
2	Revisiting the Gorlin equation for aortic stenosis--is it correctly used in clinical practice?. <i>International Journal of Cardiology</i> , 2013 , 168, 2881-3	3.2	6
1	Response to letter regarding article, "accurate assessment of aortic stenosis: a review of diagnostic modalities and hemodynamics". <i>Circulation</i> , 2014 , 130, e135	16.7	1