

Lakshmi Prasad Dasi

List of Publications by Year in descending order

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Version: 2024-02-01

52
papers

942
citations

430874

18
h-index

477307

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54
all docs

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docs citations

54
times ranked

882
citing authors

#	ARTICLE	IF	CITATIONS
1	Fluid Dynamic Assessment of Three Polymeric Heart Valves Using Particle Image Velocimetry. <i>Annals of Biomedical Engineering</i> , 2006, 34, 936-952.	2.5	80
2	Antibacterial activity on superhydrophobic titania nanotube arrays. <i>Colloids and Surfaces B: Biointerfaces</i> , 2018, 166, 179-186.	5.0	68
3	Theory to Predict Shear Stress on Cells in Turbulent Blood Flow. <i>PLoS ONE</i> , 2014, 9, e105357.	2.5	54
4	Aortic sinus flow stasis likely in valve-in-valve transcatheter aortic valve implantation. <i>Journal of Thoracic and Cardiovascular Surgery</i> , 2017, 154, 32-43.e1.	0.8	54
5	Impact of patient-specific morphologies on sinus flow stasis in transcatheter aortic valve replacement: An in vitro study. <i>Journal of Thoracic and Cardiovascular Surgery</i> , 2019, 157, 540-549.	0.8	53
6	Implantation Depth and Rotational Orientation Effect on Valve-in-Valve Hemodynamics and Sinus Flow. <i>Annals of Thoracic Surgery</i> , 2018, 106, 70-78.	1.3	49
7	Spatiotemporal complexity of the aortic sinus vortex. <i>Experiments in Fluids</i> , 2014, 55, 1770.	2.4	37
8	Impact of Leaflet Laceration on Transcatheter Aortic Valve-in-Valve Washout. <i>JACC: Cardiovascular Interventions</i> , 2019, 12, 1229-1237.	2.9	36
9	Hemocompatibility and Hemodynamics of Novel Hyaluronan-Polyethylene Materials for Flexible Heart Valve Leaflets. <i>Cardiovascular Engineering and Technology</i> , 2014, 5, 70-81.	1.6	34
10	Sinus Hemodynamics Variation with Tilted Transcatheter Aortic Valve Deployments. <i>Annals of Biomedical Engineering</i> , 2019, 47, 75-84.	2.5	32
11	Modeling risk of coronary obstruction during transcatheter aortic valve replacement. <i>Journal of Thoracic and Cardiovascular Surgery</i> , 2020, 159, 829-838.e3.	0.8	25
12	On the Significance of Systolic Flow Waveform on Aortic Valve Energy Loss. <i>Annals of Biomedical Engineering</i> , 2018, 46, 2102-2111.	2.5	24
13	Stented valve dynamic behavior induced by polyester fiber leaflet material in transcatheter aortic valve devices. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , 2018, 86, 232-239.	3.1	22
14	Differences in Pressure Recovery Between Balloon Expandable and Self-expandable Transcatheter Aortic Valves. <i>Annals of Biomedical Engineering</i> , 2020, 48, 860-867.	2.5	22
15	Effect of Hypertension on the Closing Dynamics and Lagrangian Blood Damage Index Measure of the B-Datum Regurgitant Jet in a Bileaflet Mechanical Heart Valve. <i>Annals of Biomedical Engineering</i> , 2014, 42, 110-122.	2.5	20
16	A turbulence in vitro assessment of On-X and St Jude Medical prostheses. <i>Journal of Thoracic and Cardiovascular Surgery</i> , 2020, 159, 88-97.	0.8	20
17	Heart Valves from Polyester Fibers vs. Biological Tissue: Comparative Study In Vitro. <i>Annals of Biomedical Engineering</i> , 2017, 45, 476-486.	2.5	19
18	Sinus Hemodynamics in Representative Stenotic Native Bicuspid and Tricuspid Aortic Valves: An In-Vitro Study. <i>Fluids</i> , 2018, 3, 56.	1.7	19

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19	The hemodynamics of transcatheter aortic valves in transcatheter aortic valves. Journal of Thoracic and Cardiovascular Surgery, 2021, 161, 565-576.e2.	0.8	19
20	Effect of severe bioprosthetic valve tissue ingrowth and inflow calcification on valve-in-valve performance. Journal of Biomechanics, 2018, 74, 171-179.	2.1	18
21	Neosinus and Sinus Flow After Self-Expanding and Balloon-Expandable Transcatheter Aortic Valve Replacement. JACC: Cardiovascular Interventions, 2021, 14, 2657-2666.	2.9	18
22	In vitro hemodynamic assessment of a novel polymeric transcatheter aortic valve. Journal of the Mechanical Behavior of Biomedical Materials, 2019, 98, 163-171.	3.1	16
23	Leaflet Laceration to Improve Neosinus and Sinus Flow After Valve-in-Valve. Circulation: Cardiovascular Interventions, 2019, 12, e007739.	3.9	16
24	Development of Tissue Engineered Heart Valves for Percutaneous Transcatheter Delivery in a Fetal Ovine Model. JACC Basic To Translational Science, 2020, 5, 815-828.	4.1	14
25	Predictive Model for Thrombus Formation After Transcatheter Valve Replacement. Cardiovascular Engineering and Technology, 2021, 12, 576-588.	1.6	14
26	The Transitional Cardiac Pumping Mechanics in the Embryonic Heart. Cardiovascular Engineering and Technology, 2013, 4, 246-255.	1.6	12
27	Altered mechanical state in the embryonic heart results in time-dependent decreases in cardiac function. Biomechanics and Modeling in Mechanobiology, 2015, 14, 1379-1389.	2.8	12
28	A case study on implantation strategies to mitigate coronary obstruction in a patient receiving transcatheter aortic valve replacement. Journal of Biomechanics, 2019, 89, 115-118.	2.1	12
29	Transcatheter Heart Valves: A Biomaterials Perspective. Advanced Healthcare Materials, 2021, 10, e2100115.	7.6	12
30	Impact of BASILICA on Sinus and Neo-Sinus Hemodynamics after Valve-in-Valve with and without Coronary Flow. Cardiovascular Revascularization Medicine, 2020, 21, 271-276.	0.8	11
31	Flow Dynamics in Anomalous Aortic Origin of a Coronary Artery in Children: Importance of the Intramural Segment. Seminars in Thoracic and Cardiovascular Surgery, 2020, , .	0.6	11
32	Intermittency and local dissipation scales under strong mean shear. Physics of Fluids, 2013, 25, .	4.0	10
33	Pilot-scale open-channel raceways and flat-panel photobioreactors maintain well-mixed conditions under a wide range of mixing energy inputs. Biotechnology and Bioengineering, 2020, 117, 959-969.	3.3	9
34	Mechanisms influencing retrograde flow in the atrioventricular canal during early embryonic cardiogenesis. Journal of Biomechanics, 2016, 49, 3162-3167.	2.1	8
35	Sinus Hemodynamics After Transcatheter Aortic Valve in Transcatheter Aortic Valve. Annals of Thoracic Surgery, 2020, 110, 1348-1356.	1.3	8
36	Impact of superhydrophobicity on the fluid dynamics of a bileaflet mechanical heart valve. Journal of the Mechanical Behavior of Biomedical Materials, 2020, 110, 103895.	3.1	8

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37	Multiple MitraClips: The balancing act between pressure gradient and regurgitation. Journal of Thoracic and Cardiovascular Surgery, 2022, 163, 1319-1327.e1.	0.8	7
38	Simple 2-dimensional anatomic model to predict the risk of coronary obstruction during transcatheter aortic valve replacement. Journal of Thoracic and Cardiovascular Surgery, 2021, 162, 1075-1083.e1.	0.8	7
39	In-vitro characterization of self-expandable textile transcatheter aortic valves. Journal of the Mechanical Behavior of Biomedical Materials, 2020, 103, 103559.	3.1	6
40	Modeling of the Instantaneous Transvalvular Pressure Gradient in Aortic Stenosis. Annals of Biomedical Engineering, 2019, 47, 1748-1763.	2.5	5
41	Fetal Transcatheter Trileaflet Heart Valve Hemodynamics: Implications of Scaling on Valve Mechanics and Turbulence. Annals of Biomedical Engineering, 2020, 48, 1683-1693.	2.5	4
42	Implications of hydrodynamic testing to guide sizing of self-expanding transcatheter heart valves for valve-in-valve procedures. Catheterization and Cardiovascular Interventions, 2020, 96, E332-E340.	1.7	3
43	Atrial and ventricular flows across a transcatheter mitral valve. Interactive Cardiovascular and Thoracic Surgery, 2021, 33, 1-9.	1.1	3
44	Assessment of transfer of morphological characteristics of Anomalous Aortic Origin of a Coronary Artery from imaging to patient specific 3D Printed models: A feasibility study. Computer Methods and Programs in Biomedicine, 2021, 201, 105947.	4.7	3
45	Commentary: Complying With the Compliance of Ross Procedure Reinforcing Grafts. Seminars in Thoracic and Cardiovascular Surgery, 2020, 32, 823-824.	0.6	3
46	Image Registration-Based Method for Reconstructing Transcatheter Heart Valve Geometry from Patient-Specific CT Scans. Annals of Biomedical Engineering, 2022, 50, 805-815.	2.5	3
47	Energy Costs of Singular and Concomitant Pressure and Volume Overload Lesions. Cardiovascular Engineering and Technology, 2014, 5, 44-53.	1.6	1
48	Effect of strong anisotropy on the dissipative and non-dissipative regimes of the second-order structure function. Experiments in Fluids, 2013, 54, 1.	2.4	0
49	Surgical Aortic Valve Sizing: Imagine the Benefits of Imaging. Annals of Thoracic Surgery, 2020, 110, 1511.	1.3	0
50	Commentary: Computational Fluid Dynamics in Anomalous Coronaries: Moving From Anecdote-Based to Data-Based Clinical Decision-Making. Seminars in Thoracic and Cardiovascular Surgery, 2021, 33, 168-169.	0.6	0
51	Predicting leaflet thrombosis: Is the clue in the blood?. Annals of Thoracic Surgery, 2021, 112, 1727-1728.	1.3	0
52	Controlling the Flow Separation in Heart Valves Using Vortex Generators. Annals of Biomedical Engineering, 2022, , 1.	2.5	0