Ajit P Yoganathan

List of Publications by Year
in descending order

451	18,651	12330 69	24982 109
papers	citations	h-index	g-index

475	475	475	8841
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Dynamic nature of the LVOT following transcatheter mitral valve replacement with LAMPOON: new insights from post-procedure imaging. European Heart Journal Cardiovascular Imaging, 2022, 23, 650-662.	1.2	12
2	The role of flow stasis in transcatheter aortic valve leaflet thrombosis. Journal of Thoracic and Cardiovascular Surgery, 2022, 164, e105-e117.	0.8	23
3	Long-term durability of a new surgical aortic valve: A 1 billion cycle inÂvitro study. JTCVS Open, 2022, 9, 59-69.	0.5	6
4	Gradient and pressure recovery of a self-expandable transcatheter aortic valve depends on ascending aorta size: InÂvitro study. JTCVS Open, 2022, , .	0.5	3
5	Fontan Geometry and Hemodynamics Are Associated With Quality of Life in Adolescents and Young Adults. Annals of Thoracic Surgery, 2022, 114, 841-847.	1.3	6
6	Computational Methods for Fluid-Structure Interaction Simulation of Heart Valves in Patient-Specific Left Heart Anatomies. Fluids, 2022, 7, 94.	1.7	7
7	Impact of Anchor Location on Mitral Neochordae Forces: An InÂVitro Study. Annals of Thoracic Surgery, 2022, 113, 1378-1384.	1.3	2
8	Clinical Impact of Computational Heart Valve Models. Materials, 2022, 15, 3302.	2.9	12
9	Essential information on surgical heart valve characteristics for optimal valve prosthesis selection: expert consensus document from the European Association for Cardio-Thoracic Surgery (EACTS)â€"The Society of Thoracic Surgeons (STS)â€"American Association for Thoracic Surgery (AATS)ÂValve Labelling Task Force. European Journal of Cardio-thoracic Surgery, 2021, 59, 54-64.	1.4	15
10	Transcatheter Aortic Valve Thrombogenesis: A Foreign Materials Perspective. Cardiovascular Engineering and Technology, 2021, 12, 28-36.	1.6	4
11	In-Vitro Assessment of the Effects of Transcatheter Aortic Valve Leaflet Design on Neo-Sinus Geometry and Flow. Annals of Biomedical Engineering, 2021, 49, 1046-1057.	2.5	10
12	InÂvitro evaluation of a new aortic valved conduit. Journal of Thoracic and Cardiovascular Surgery, 2021, 161, 581-590.e6.	0.8	7
13	A Simplified In Silico Model of Left Ventricular Outflow in Patients After Transcatheter Mitral Valve Replacement with Anterior Leaflet Laceration. Annals of Biomedical Engineering, 2021, 49, 1449-1461.	2.5	7
14	Percutaneous DLC-Based Total Cavopulmonary Assist Achieves 96-Hour SurvivalÂinÂLethal Cavopulmonary Failure Sheep. Journal of the American College of Cardiology, 2021, 78, 538-540.	2.8	1
15	An Anterior Anastomosis for the Modified Fontan Connection: A Hemodynamic Analysis. Seminars in Thoracic and Cardiovascular Surgery, 2021, 33, 816-823.	0.6	1
16	Transcatheter aortic valve thrombosis: a review of potential mechanisms. Journal of the Royal Society Interface, 2021, 18, 20210599.	3.4	11
17	Predictive Model for Thrombus Formation After Transcatheter Valve Replacement. Cardiovascular Engineering and Technology, 2021, 12, 576-588.	1.6	14
18	Y-graft modification to the Fontan procedure: Increasingly balanced flow over time. Journal of Thoracic and Cardiovascular Surgery, 2020, 159, 652-661.	0.8	19

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19	Transcatheter aortic valve deployment influences neoâ€sinus thrombosis risk: An in vitro flow study. Catheterization and Cardiovascular Interventions, 2020, 95, 1009-1016.	1.7	18
20	An Evaluation of the Influence of Coronary Flow on Transcatheter Heart Valve Neo-Sinus Flow Stasis. Annals of Biomedical Engineering, 2020, 48, 169-180.	2.5	19
21	A mechanistic investigation of the EDWARDS INTUITY Elite valveâ€™s hemodynamic performance. General Thoracic and Cardiovascular Surgery, 2020, 68, 9-17.	0.9	14
22	Optimized mitral annuloplasty ring design reduces loading in the posterior annulus. Journal of Thoracic and Cardiovascular Surgery, 2020, 159, 1766-1774.e2.	0.8	7
23	Cardiac Magnetic Resonanceâ€“Derived Metrics Are Predictive of Liver Fibrosis in Fontan Patients. Annals of Thoracic Surgery, 2020, 109, 1904-1911.	1.3	22
24	Impact of Free-Breathing Phase-Contrast MRI on Decision-Making in Fontan Surgical Planning. Journal of Cardiovascular Translational Research, 2020, 13, 640-647.	2.4	5
25	Cross-Sectional Magnetic Resonance and Modeling Comparison From Just After Fontan to the Teen Years. Annals of Thoracic Surgery, 2020, 109, 574-582.	1.3	5
26	Fluid-Structure Interaction Simulation of an Intra-Atrial Fontan Connection. Biology, 2020, 9, 412.	2.8	22
27	Effect of Edge-to-Edge Mitral Valve Repair on Chordal Strain: Fluid-Structure Interaction Simulations. Biology, 2020, 9, 173.	2.8	13
28	Hemodynamics of a stenosed aortic valve: Effects of the geometry of the sinuses and the positions of the coronary ostia. International Journal of Mechanical Sciences, 2020, 188, 106015.	6.7	5
29	Framework for Planning TMVR using 3-D Imaging, In Silico Modeling, and Virtual Reality. Structural Heart, 2020, 4, 336-341.	0.6	3
30	Influence of Patient-Specific Characteristics on Transcatheter Heart Valve Neo-Sinus Flow: An In Silico Study. Annals of Biomedical Engineering, 2020, 48, 2400-2411.	2.5	23
31	Non-Newtonian Effects on Patient-Specific Modeling of Fontan Hemodynamics. Annals of Biomedical Engineering, 2020, 48, 2204-2217.	2.5	17
32	Comparison of Fontan Surgical Options for Patients with Apicocaval Juxtaposition. Pediatric Cardiology, 2020, 41, 1021-1030.	1.3	8
33	Fluid-Structure Interaction Analysis of Subject-Specific Mitral Valve Regurgitation Treatment with an Intra-Valvular Spacer. Prosthesis, 2020, 2, 65-75.	2.9	9
34	Computational modeling of a right-sided Fontan assist device: Effectiveness across patient anatomies and cannulations. Journal of Biomechanics, 2020, 109, 109917.	2.1	4
35	A multilayered valve leaflet promotes cell-laden collagen type I production and aortic valve hemodynamics. Biomaterials, 2020, 240, 119838.	11.4	21
36	SETTING STANDARDS: Revised ISO 5840 Series Clarifies Testing, Evaluation Procedures for Cardiac Valves. Biomedical Instrumentation and Technology, 2020, 54, 441-443.	0.4	3

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37	Farewell Editorial. Cardiovascular Engineering and Technology, 2020, 11, 605-606.	1.6	0
38	Editorial. Cardiovascular Engineering and Technology, 2019, 10, 395-396.	1.6	0
39	An inÂvitro analysis of the PediMag and CentriMag for right-sided failing Fontan support. Journal of Thoracic and Cardiovascular Surgery, 2019, 158, 1413-1421.	0.8	14
40	Relationship of Aortic Stiffness to Exercise and Ventricular Volumes in Single Ventricles. Annals of Thoracic Surgery, 2019, 108, 574-580.	1.3	3
41	Neosinus Flow Stasis Correlates With Thrombus Volume Post-TAVR. JACC: Cardiovascular Interventions, 2019, 12, 1288-1290.	2.9	18
42	miR-214 is Stretch-Sensitive in Aortic Valve and Inhibits Aortic Valve Calcification. Annals of Biomedical Engineering, 2019, 47, 1106-1115.	2.5	12
43	Might Coronary Flow Influence Transcatheter Heart Valve Neo-Sinus Thrombosis?. Circulation: Cardiovascular Interventions, 2019, 12, e008005.	3.9	7
44	Analysis of Inlet Velocity Profiles in Numerical Assessment of Fontan Hemodynamics. Annals of Biomedical Engineering, 2019, 47, 2258-2270.	2.5	24
45	Three-dimensional extent of flow stagnation in transcatheter heart valves. Journal of the Royal Society Interface, 2019, 16, 20190063.	3.4	19
46	ARE FONTAN HEMODYNAMICS PREDICTIVE OF FUTURE LIVER DISEASE IN FONTAN PATIENTS?. Journal of the American College of Cardiology, 2019, 73, 581.	2.8	0
47	Characteristics of surgical prosthetic heart valves and problems around labeling: A document from the European Association for Cardio-Thoracic Surgery (EACTS)â€"The Society of Thoracic Surgeons (STS)â€"American Association for Thoracic Surgery (AATS) Valve Labelling Task Force. Journal of Thoracic and Cardiovascular Surgery, 2019, 158, 1041-1054.	0.8	24
48	Left ventricular flow in the presence of aortic regurgitation. Journal of Biomechanics, 2019, 87, 211.	2.1	0
49	On the Simulation of Mitral Valve Function in Health, Disease, and Treatment. Journal of Biomechanical Engineering, 2019, 141, .	1.3	45
50	CORONARY FLOW INFLUENCES TRANSCATHETER AORTIC VALVE LEAFLET THROMBOSIS RISK. Journal of the American College of Cardiology, 2019, 73, 1035.	2.8	0
51	Development of a Computational Method for Simulating Tricuspid Valve Dynamics. Annals of Biomedical Engineering, 2019, 47, 1422-1434.	2.5	24
52	The first cohort of prospective Fontan surgical planning patients with follow-up data: How accurate is surgical planning?. Journal of Thoracic and Cardiovascular Surgery, 2019, 157, 1146-1155.	0.8	34
53	Tricuspid Valve Annular Mechanics: Interactions with and Implications for Transcatheter Devices. Cardiovascular Engineering and Technology, 2019, 10, 193-204.	1.6	7
54	Disturbed Flow Increases UBE2C (Ubiquitin E2 Ligase C) via Loss of miR-483-3p, Inducing Aortic Valve Calcification by the pVHL (von Hippel-Lindau Protein) and HIF-1Î± (Hypoxia-Inducible Factor-1Î±) Pathway in Endothelial Cells. Arteriosclerosis, Thrombosis, and Vascular Biology, 2019, 39, 467-481.	2.4	54

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55	In Vitro Examination of the VentriFlo True Pulse Pump for Failing Fontan Support. Artificial Organs, 2019, 43, 181-188.	1.9	9
56	Outcomes of Single Ventricle Patients Undergoing the Kawashima Procedure: Can We Do Better?. World Journal for Pediatric & Congenital Heart Surgery, 2019, 10, 20-27.	0.8	7
57	Novel In Vitro Test Systems and Insights for Transcatheter Mitral Valve Design, Part II: Radial Expansion Forces. Annals of Biomedical Engineering, 2019, 47, 392-402.	2.5	4
58	Novel In Vitro Test Systems and Insights for Transcatheter Mitral Valve Design, Part I: Paravalvular Leakage. Annals of Biomedical Engineering, 2019, 47, 381-391.	2.5	5
59	The effect of respiration-driven flow waveforms on hemodynamic metrics used in Fontan surgical planning. Journal of Biomechanics, 2019, 82, 87-95.	2.1	13
60	Suture dehiscence and collagen content in the human mitral and tricuspid annuli. Biomechanics and Modeling in Mechanobiology, 2019, 18, 291-299.	2.8	8
61	Characterization of aortic root geometry in transcatheter aortic valve replacement patients. Catheterization and Cardiovascular Interventions, 2019, 93, 134-140.	1.7	11
62	Computational Fluid Dynamics Assessment Associated with Transcatheter Heart Valve Prostheses: A Position Paper of the ISO Working Group. Cardiovascular Engineering and Technology, 2018, 9, 289-299.	1.6	29
63	Impact of hemodynamics and fluid energetics on liver fibrosis after Fontan operation. Journal of Thoracic and Cardiovascular Surgery, 2018, 156, 267-275.	0.8	41
64	Fontan Surgical Planning: Previous Accomplishments, Current Challenges, and Future Directions. Journal of Cardiovascular Translational Research, 2018, 11, 133-144.	2.4	46
65	Standardized Definition of Structural Valve Degeneration for Surgical and Transcatheter Bioprosthetic Aortic Valves. Circulation, 2018, 137, 388-399.	1.6	350
66	Effects of annular contraction on anterior leaflet strain using an in vitro simulator with a dynamically contracting mitral annulus. Journal of Biomechanics, 2018, 66, 51-56.	2.1	4
67	Valve mediated hemodynamics and their association with distal ascending aortic diameter in bicuspid aortic valve subjects. Journal of Magnetic Resonance Imaging, 2018, 47, 246-254.	3.4	24
68	Mitral annuloplasty ring suture forces: Impact of surgeon, ring, and use conditions. Journal of Thoracic and Cardiovascular Surgery, 2018, 155, 131-139.e3.	0.8	15
69	Leg lean mass correlates with exercise systemic output in young Fontan patients. Heart, 2018, 104, 680-684.	2.9	29
70	Using a Novel In Vitro Fontan Model and Condition-Specific Real-Time MRI Data to Examine Hemodynamic Effects of Respiration and Exercise. Annals of Biomedical Engineering, 2018, 46, 135-147.	2.5	16
71	The Advantages of Viscous Dissipation Rate over Simplified Power Loss as a Fontan Hemodynamic Metric. Annals of Biomedical Engineering, 2018, 46, 404-416.	2.5	32
72	Measurement Technologies for Heart Valve Function. , 2018, , 115-149.		1

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73	Transcatheter Mitral Valve Planning and the Neo-LVOT: Utilization of Virtual Simulation Models and 3D Printing. Current Treatment Options in Cardiovascular Medicine, 2018, 20, 99.	0.9	44
74	Response by Sharma et al to Letter Regarding Article, â€œThe Fluid Mechanics of Transcatheter Heart Valve Leaflet Thrombosis in the Neosinusâ€. Circulation, 2018, 137, 2094-2095.	1.6	0
75	Flow visualization of the non-parallel jet-vortex interaction. Journal of Visualization, 2018, 21, 533-542.	1.8	5
76	Impact of simulated MitraClip on forward flow obstruction in the setting of mitral leaflet tethering: An in vitro investigation. Catheterization and Cardiovascular Interventions, 2018, 92, 797-807.	1.7	4
77	Mitral annuloplasty ring flexibility preferentially reduces posterior suture forces. Journal of Biomechanics, 2018, 75, 58-66.	2.1	9
78	The Effect of Valve-in-Valve Implantation Height on Sinus Flow. Annals of Biomedical Engineering, 2017, 45, 405-412.	2.5	42
79	Personalized mitral valve closure computation and uncertainty analysis from 3D echocardiography. Medical Image Analysis, 2017, 35, 238-249.	11.6	14
80	Mechanotransduction in small intestinal submucosa scaffolds: fabrication parameters potentially modulate the shear-induced expression of PECAM-1 and eNOS. Journal of Tissue Engineering and Regenerative Medicine, 2017, 11, 1427-1434.	2.7	3
81	Aortic Regurgitation Generates a Kinematic Obstruction Which Hinders Left Ventricular Filling. Annals of Biomedical Engineering, 2017, 45, 1305-1314.	2.5	21
82	A Method for In Vitro TCPC Compliance Verification. Journal of Biomechanical Engineering, 2017, 139, .	1.3	9
83	Suture Dehiscence in the Tricuspid Annulus: An ExÂVivo Analysis of Tissue Strength and Composition. Annals of Thoracic Surgery, 2017, 104, 820-826.	1.3	15
84	Effect of Fontan geometry on exercise haemodynamics and its potential implications. Heart, 2017, 103, 1806-1812.	2.9	46
85	Mitral Valve Chordae Tendineae: Topological and Geometrical Characterization. Annals of Biomedical Engineering, 2017, 45, 378-393.	2.5	36
86	The Fluid Mechanics of Transcatheter Heart Valve Leaflet Thrombosis in the Neosinus. Circulation, 2017, 136, 1598-1609.	1.6	163
87	In Vitro Examination of the HeartWare CircuLite Ventricular Assist Device in the Fontan Connection. ASAIO Journal, 2017, 63, 482-489.	1.6	7
88	Editorial. Cardiovascular Engineering and Technology, 2017, 8, 1-2.	1.6	4
89	Fluidâ€“structure interaction and structural analyses using a comprehensive mitral valve model with 3D chordal structure. International Journal for Numerical Methods in Biomedical Engineering, 2017, 33, e2815.	2.1	37
90	Can time-averaged flow boundary conditions be used to meet the clinical timeline for Fontan surgical planning?. Journal of Biomechanics, 2017, 50, 172-179.	2.1	29

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91	Ex Vivo Methods for Informing Computational Models of the Mitral Valve. Annals of Biomedical Engineering, 2017, 45, 496-507.	2.5	43
92	Fluid-Structure Interaction Analysis of Ruptured Mitral Chordae Tendineae. Annals of Biomedical Engineering, 2017, 45, 619-631.	2.5	25
93	On the Mechanics of Transcatheter Aortic Valve Replacement. Annals of Biomedical Engineering, 2017, 45, 310-331.	2.5	69
94	Local Hemodynamic Differences Between Commercially Available Y-Grafts and Traditional Fontan Baffles Under Simulated Exercise Conditions: Implications for Exercise Tolerance. Cardiovascular Engineering and Technology, 2017, 8, 390-399.	1.6	14
95	Fluid Dynamics of Prosthetic Valves. , 2017, , 433-454.		0
96	Identification of side- and shear-dependent microRNAs regulating porcine aortic valve pathogenesis. Scientific Reports, 2016, 6, 25397.	3.3	43
97	Mitral annuloplasty ring suture dehiscence: In search of more robust techniques. Journal of Thoracic and Cardiovascular Surgery, 2016, 152, 1640.	0.8	1
98	The hemodynamic effects of acute aortic regurgitation into a stiffened left ventricle resulting from chronic aortic stenosis. American Journal of Physiology - Heart and Circulatory Physiology, 2016, 310, H1801-H1807.	3.2	8
99	Real-time recording of annuloplasty suture dehiscence reveals a potential mechanism for dehiscence cascade. Journal of Thoracic and Cardiovascular Surgery, 2016, 152, e15-e17.	0.8	9
100	High-resolution subject-specific mitral valve imaging and modeling: experimental and computational methods. Biomechanics and Modeling in Mechanobiology, 2016, 15, 1619-1630.	2.8	28
101	Valve Type, Size, and Deployment Location Affect Hemodynamics in anÂInÂVitro Valve-in-Valve Model. JACC: Cardiovascular Interventions, 2016, 9, 1618-1628.	2.9	67
102	Three-Dimensional Field Optimization Method: Gold-Standard Validation of a Novel Color Doppler Method for Quantifying Mitral Regurgitation. Journal of the American Society of Echocardiography, 2016, 29, 917-925.	2.8	13
103	How Local Annular Force and Collagen Density Govern Mitral Annuloplasty Ring Dehiscence Risk. Annals of Thoracic Surgery, 2016, 102, 518-526.	1.3	31
104	Haemodynamic impact of stent implantation for lateral tunnel Fontan stenosis: a patient-specific computational assessment. Cardiology in the Young, 2016, 26, 116-126.	0.8	9
105	Long-Term Durability of Carpentier-Edwards Magna Ease Valve: A One Billion Cycle InÂVitro Study. Annals of Thoracic Surgery, 2016, 101, 1759-1765.	1.3	35
106	Validation of Cardiac Output as Reported by a Permanently Implanted Wireless Sensor. Journal of Medical Devices, Transactions of the ASME, 2016, 10, .	0.7	5
107	New mitral annular force transducer optimized to distinguish annular segments and multi-plane forces. Journal of Biomechanics, 2016, 49, 742-748.	2.1	7
108	A pulsatile hemodynamic evaluation of the commercially available bifurcated Y-graft Fontan modification and comparison with the lateral tunnel and extracardiac conduits. Journal of Thoracic and Cardiovascular Surgery, 2016, 151, 1529-1536.	0.8	33

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109	Respiratory Effects on Fontan Circulation During Rest and Exercise Using Real-Time Cardiac Magnetic Resonance Imaging. Annals of Thoracic Surgery, 2016, 101, 1818-1825.	1.3	37
110	Atrial systole enhances intraventricular filling flow propagation during increasing heart rate. Journal of Biomechanics, 2016, 49, 618-623.	2.1	6
111	SURGEM: A solid modeling tool for planning and optimizing pediatric heart surgeries. CAD Computer Aided Design, 2016, 70, 3-12.	2.7	20
112	Novel Method to Track Soft Tissue Deformation by Micro-Computed Tomography: Application to the Mitral Valve. Annals of Biomedical Engineering, 2016, 44, 2273-2281.	2.5	13
113	Hemodynamic Impact of Superior Vena Cava Placement in the Y-Graft Fontan Connection. Annals of Thoracic Surgery, 2016, 101, 183-189.	1.3	10
114	Fluidâ€“Structure Interaction Analysis of Papillary Muscle Forces Using a Comprehensive Mitral Valve Model with 3D Chordal Structure. Annals of Biomedical Engineering, 2016, 44, 942-953.	2.5	54
115	Cardiovascular magnetic resonance compatible physical model of the left ventricle for multi-modality characterization of wall motion and hemodynamics. Journal of Cardiovascular Magnetic Resonance, 2015, 17, 51.	3.3	20
116	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. Journal of the Royal Society Interface, 2015, 12, 20150737.	3.4	45
117	How Can We Help a Patient With a SmallÂFailing Bioprosthesis?. JACC: Cardiovascular Interventions, 2015, 8, 2026-2033.	2.9	33
118	Role of Mitral Annulus Diastolic Geometry on Intraventricular Filling Dynamics. Journal of Biomechanical Engineering, 2015, 137, 121007.	1.3	8
119	Comparison of hinge microflow fields of bileaflet mechanical heart valves implanted in different sinus shape and downstream geometry. Computer Methods in Biomechanics and Biomedical Engineering, 2015, 18, 1785-1796.	1.6	10
120	Does TCPC power loss really affect exercise capacity?. Heart, 2015, 101, 575.2-576.	2.9	3
121	Fifth Anniversary Editorial. Cardiovascular Engineering and Technology, 2015, 6, 1-1.	1.6	1
122	Relationship of Single Ventricle Filling and Preload to Total Cavopulmonary Connection Hemodynamics. Annals of Thoracic Surgery, 2015, 99, 911-917.	1.3	20
123	A Comprehensive Framework for the Characterization of the Complete Mitral Valve Geometry for the Development of a Population-Averaged Model. Lecture Notes in Computer Science, 2015, , 164-171.	1.3	15
124	Design of a Pulsatile Flow Facility to Evaluate Thrombogenic Potential of Implantable Cardiac Devices. Journal of Biomechanical Engineering, 2015, 137, 045001.	1.3	11
125	Exercise capacity in the Bidirectional Glenn physiology: Coupling cardiac index, ventricular function and oxygen extraction ratio. Journal of Biomechanics, 2015, 48, 1997-2004.	2.1	3
126	On the effects of leaflet microstructure and constitutive model on the closing behavior of the mitral valve. Biomechanics and Modeling in Mechanobiology, 2015, 14, 1281-1302.	2.8	60

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127	MRI-based Protocol to Characterize the Relationship Between Bicuspid Aortic Valve Morphology and Hemodynamics. Annals of Biomedical Engineering, 2015, 43, 1815-1827.	2.5	11
128	Energetic Implications of Vessel Growth and Flow Changes Over Time in Fontan Patients. Annals of Thoracic Surgery, 2015, 99, 163-170.	1.3	35
129	Isolated effect of geometry on mitral valve function forin silicomodel development. Computer Methods in Biomechanics and Biomedical Engineering, 2015, 18, 618-627.	1.6	8
130	Surgical Planning of the Total Cavopulmonary Connection: Robustness Analysis. Annals of Biomedical Engineering, 2015, 43, 1321-1334.	2.5	20
131	Optimizing hepatic flow distribution with the Fontan Y-graft: Lessons from computational simulations. Journal of Thoracic and Cardiovascular Surgery, 2015, 149, 255-256.	0.8	6
132	Bicuspid aortic valves are associated with increased wall and turbulence shear stress levels compared to trileaflet aortic valves. Biomechanics and Modeling in Mechanobiology, 2015, 14, 577-588.	2.8	36
133	Exercise capacity in single-ventricle patients after Fontan correlates with haemodynamic energy loss in TCPC. Heart, 2015, 101, 139-143.	2.9	104
134	High Transcatheter Valve Replacement May Reduce Washout in the Aortic Sinuses: an In-Vitro Study. Journal of Heart Valve Disease, 2015, 24, 22-9.	0.5	14
135	Blood Damage Through a Bileaflet Mechanical Heart Valve: A Quantitative Computational Study Using a Multiscale Suspension Flow Solver. Journal of Biomechanical Engineering, 2014, 136, 101009.	1.3	23
136	Effect of Hinge Gap Width of a St. Jude Medical Bileaflet Mechanical Heart Valve on Blood Damage Potentialâ€"An In Vitro Micro Particle Image Velocimetry Study. Journal of Biomechanical Engineering, 2014, 136, 091008.	1.3	15
137	Comparison by Magnetic Resonance Phase Contrast Imagingof Pulse-Wave Velocity in Patients With Single Ventricle Who Have Reconstructed Aortas Versus Those Without. American Journal of Cardiology, 2014, 114, 1902-1907.	1.6	8
138	Response to Letter Regarding Article, â€œAccurate Assessment of Aortic Stenosis: A Review of Diagnostic Modalities and Hemodynamicsâ€• Circulation, 2014, 130, e135.	1.6	1
139	Fontan Pathway Growth: A Quantitative Evaluation of Lateral Tunnel and Extracardiac Cavopulmonary Connections Using Serial Cardiac Magnetic Resonance. Annals of Thoracic Surgery, 2014, 97, 916-922.	1.3	32
140	Quantitative Evaluation of Annuloplasty on Mitral Valve Chordae Tendineae Forces to Supplement Surgical Planning Model Development. Cardiovascular Engineering and Technology, 2014, 5, 35-43.	1.6	23
141	Micro Particle Image Velocimetry Measurements of Steady Diastolic Leakage Flow in the Hinge of a St. Jude MedicalÂ® Regentâ„¢ Mechanical Heart Valve. Annals of Biomedical Engineering, 2014, 42, 526-540.	2.5	22
142	Fontan hemodynamics from 100 patient-specific cardiac magnetic resonance studies: A computational fluid dynamics analysis. Journal of Thoracic and Cardiovascular Surgery, 2014, 148, 1481-1489.	0.8	86
143	Clinical Evaluation of New Heart Valve Prostheses: Update of Objective Performance Criteria. Annals of Thoracic Surgery, 2014, 98, 1865-1874.	1.3	29
144	Suture Forces in Undersized Mitral Annuloplasty: Novel Device and Measurements. Annals of Thoracic Surgery, 2014, 98, 305-309.	1.3	19

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145	An In Vitro Evaluation of the Impact of Eccentric Deployment on Transcatheter Aortic Valve Hemodynamics. Annals of Biomedical Engineering, 2014, 42, 1195-1206.	2.5	61
146	Accurate Assessment of Aortic Stenosis. Circulation, 2014, 129, 244-253.	1.6	130
147	Reply to the Editor. Journal of Thoracic and Cardiovascular Surgery, 2014, 148, 1771-1772.	0.8	0
148	Computational simulations of flow dynamics and blood damage through a bileaflet mechanical heart valve scaled to pediatric size and flow. Journal of Biomechanics, 2014, 47, 3169-3177.	2.1	23
149	Mitral valve annuloplasty and anterior leaflet augmentation for functional ischemic mitral regurgitation: Quantitative comparison ofÂcoaptation and subvalvular tethering. Journal of Thoracic and Cardiovascular Surgery, 2014, 148, 1688-1693.	0.8	23
150	Mitral valve annular downsizing forces: Implications for annuloplasty device development. Journal of Thoracic and Cardiovascular Surgery, 2014, 148, 83-89.	0.8	12
151	Transcatheter aortic valve implantation can potentially impact short-term and long-term functionality: An in vitro study. International Journal of Cardiology, 2014, 172, e421-e422.	1.7	3
152	Geometric Characterization of Patient-Specific Total Cavopulmonary Connections and its Relationship to Hemodynamics. JACC: Cardiovascular Imaging, 2014, 7, 215-224.	5.3	59
153	Computational modeling of Fontan physiology: at the crossroads of pediatric cardiology and biomedical engineering. International Journal of Cardiovascular Imaging, 2014, 30, 1073-1084.	1.5	14
154	Effect of high altitude exposure on the hemodynamics of the bidirectional Glenn physiology: Modeling incremented pulmonary vascular resistance and heart rate. Journal of Biomechanics, 2014, 47, 1846-1852.	2.1	7
155	Heart Valve Dynamics. , 2014, , 9-1-9-32.		0
156	The role of inorganic pyrophosphate in aortic valve calcification. Journal of Heart Valve Disease, 2014, 23, 387-94.	0.5	21
157	Impact of mitral valve geometry on hemodynamic efficacy of surgical repair in secondary mitral regurgitation. Journal of Heart Valve Disease, 2014, 23, 79-87.	0.5	22
158	Hemodynamic comparison of mitral valve repair: techniques for a flail anterior leaflet. Journal of Heart Valve Disease, 2014, 23, 171-6.	0.5	9
159	Numerical analysis of the hemodynamic performance of bileaflet mechanical heart valves at different implantation angles. Journal of Heart Valve Disease, 2014, 23, 642-50.	0.5	0
160	2012 CVET Reviewers. Cardiovascular Engineering and Technology, 2013, 4, 101-101.	1.6	0
161	Aortic Valve: Mechanical Environment and Mechanobiology. Annals of Biomedical Engineering, 2013, 41, 1331-1346.	2.5	91
162	Treatment planning for a TCPC test case: A numerical investigation under rigid and moving wall assumptions. International Journal for Numerical Methods in Biomedical Engineering, 2013, 29, 197-216.	2.1	19

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163	Hemodynamics of the Boston Scientific Lotusâ„¢ Valve: An In Vitro Study. Cardiovascular Engineering and Technology, 2013, 4, 427-439.	1.6	15
164	Contractile mitral annular forces are reduced with ischemic mitral regurgitation. Journal of Thoracic and Cardiovascular Surgery, 2013, 146, 422-428.	0.8	13
165	Impact of Pulmonary Hypertension on Tricuspid Valve Function. Annals of Biomedical Engineering, 2013, 41, 709-724.	2.5	7
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