

Ajit P Yoganathan

List of Publications by Year in Descending Order

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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.

442
papers

15,257
citations

64
h-index

98
g-index

475
ext. papers

16,859
ext. citations

3.9
avg, IF

6.41
L-index

#	Paper	IF	Citations
442	Computational Methods for Fluid-Structure Interaction Simulation of Heart Valves in Patient-Specific Left Heart Anatomies. <i>Fluids</i> , 2022 , 7, 94	1.6	1
441	Essential information on surgical heart valve characteristics for optimal valve prosthesis selection: expert consensus document from the European Association for Cardio-Thoracic Surgery (EACTS)-The Society of Thoracic Surgeons (STS)-American Association for Thoracic Surgery (AATS) Valve Labelling Task Force. <i>European Journal of Cardio-thoracic Surgery</i> , 2021 , 59, 54-64	2.9	4
440	Transcatheter Aortic Valve Thrombogenesis: A Foreign Materials Perspective. <i>Cardiovascular Engineering and Technology</i> , 2021 , 12, 28-36	2.1	2
439	In-Vitro Assessment of the Effects of Transcatheter Aortic Valve Leaflet Design on Neo-Sinus Geometry and Flow. <i>Annals of Biomedical Engineering</i> , 2021 , 49, 1046-1057	4.6	4
438	In Vitro evaluation of a new aortic valved conduit. <i>Journal of Thoracic and Cardiovascular Surgery</i> , 2021 , 161, 581-590.e6	1.5	5
437	Dynamic nature of the LVOT following transcatheter mitral valve replacement with LAMPOON: new insights from post-procedure imaging. <i>European Heart Journal Cardiovascular Imaging</i> , 2021 ,	3.9	1
436	Percutaneous DLC-Based Total Cavopulmonary Assist Achieves 96-Hour Survival in Lethal Cavopulmonary Failure Sheep. <i>Journal of the American College of Cardiology</i> , 2021 , 78, 538-540	4.6	
435	A Simplified In Silico Model of Left Ventricular Outflow in Patients After Transcatheter Mitral Valve Replacement with Anterior Leaflet Laceration. <i>Annals of Biomedical Engineering</i> , 2021 , 49, 1449-1461	4.6	4
434	Impact of Anchor Location on Mitral Neo-chordae Forces: An In Vitro Study.. <i>Annals of Thoracic Surgery</i> , 2021 ,	2.6	1
433	Transcatheter aortic valve thrombosis: a review of potential mechanisms. <i>Journal of the Royal Society Interface</i> , 2021 , 18, 20210599	4	2
432	Predictive Model for Thrombus Formation After Transcatheter Valve Replacement. <i>Cardiovascular Engineering and Technology</i> , 2021 , 12, 576	2.1	3
431	An Anterior Anastomosis for the Modified Fontan Connection: A Hemodynamic Analysis. <i>Seminars in Thoracic and Cardiovascular Surgery</i> , 2021 , 33, 816-823	1.6	1
430	Y-graft modification to the Fontan procedure: Increasingly balanced flow over time. <i>Journal of Thoracic and Cardiovascular Surgery</i> , 2020 , 159, 652-661	1.5	11
429	Transcatheter aortic valve deployment influences neo-sinus thrombosis risk: An in vitro flow study. <i>Catheterization and Cardiovascular Interventions</i> , 2020 , 95, 1009-1016	2.6	9
428	An Evaluation of the Influence of Coronary Flow on Transcatheter Heart Valve Neo-Sinus Flow Stasis. <i>Annals of Biomedical Engineering</i> , 2020 , 48, 169-180	4.6	11
427	A mechanistic investigation of the EDWARDS INTUITY Elite valve's hemodynamic performance. <i>General Thoracic and Cardiovascular Surgery</i> , 2020 , 68, 9-17	1.6	6
426	Optimized mitral annuloplasty ring design reduces loading in the posterior annulus. <i>Journal of Thoracic and Cardiovascular Surgery</i> , 2020 , 159, 1766-1774.e2	1.5	4

4 ²⁵	Cardiac Magnetic Resonance-Derived Metrics Are Predictive of Liver Fibrosis in Fontan Patients. <i>Annals of Thoracic Surgery</i> , 2020 , 109, 1904-1911	2.6	14
4 ²⁴	Impact of Free-Breathing Phase-Contrast MRI on Decision-Making in Fontan Surgical Planning. <i>Journal of Cardiovascular Translational Research</i> , 2020 , 13, 640-647	3.2	5
4 ²³	Cross-Sectional Magnetic Resonance and Modeling Comparison From Just After Fontan to the Teen Years. <i>Annals of Thoracic Surgery</i> , 2020 , 109, 574-582	2.6	2
4 ²²	Fluid-Structure Interaction Simulation of an Intra-Atrial Fontan Connection. <i>Biology</i> , 2020 , 9,	4.7	9
4 ²¹	Effect of Edge-to-Edge Mitral Valve Repair on Chordal Strain: Fluid-Structure Interaction Simulations. <i>Biology</i> , 2020 , 9,	4.7	9
4 ²⁰	Hemodynamics of a stenosed aortic valve: Effects of the geometry of the sinuses and the positions of the coronary ostia. <i>International Journal of Mechanical Sciences</i> , 2020 , 188, 106015	5.4	2
4 ¹⁹	Framework for Planning TMVR using 3-D Imaging, In Silico Modeling, and Virtual Reality. <i>Structural Heart</i> , 2020 , 4, 336-341	0.5	2
4 ¹⁸	Influence of Patient-Specific Characteristics on Transcatheter Heart Valve Neo-Sinus Flow: An In Silico Study. <i>Annals of Biomedical Engineering</i> , 2020 , 48, 2400-2411	4.6	9
4 ¹⁷	Non-Newtonian Effects on Patient-Specific Modeling of Fontan Hemodynamics. <i>Annals of Biomedical Engineering</i> , 2020 , 48, 2204-2217	4.6	8
4 ¹⁶	Comparison of Fontan Surgical Options for Patients with Apicocaval Juxtaposition. <i>Pediatric Cardiology</i> , 2020 , 41, 1021-1030	2	3
4 ¹⁵	Fluid-Structure Interaction Analysis of Subject-Specific Mitral Valve Regurgitation Treatment with an Intra-Valvular Spacer. <i>Prosthesis</i> , 2020 , 2, 65-75	4.6	7
4 ¹⁴	Computational modeling of a right-sided Fontan assist device: Effectiveness across patient anatomies and cannulations. <i>Journal of Biomechanics</i> , 2020 , 109, 109917	2.8	3
4 ¹³	A multilayered valve leaflet promotes cell-laden collagen type I production and aortic valve hemodynamics. <i>Biomaterials</i> , 2020 , 240, 119838	15.2	11
4 ¹²	Setting Standards: Revised ISO 5840 Series Clarifies Testing, Evaluation Procedures for Cardiac Valves. <i>Biomedical Instrumentation and Technology</i> , 2020 , 54, 441-443	0.3	2
4 ¹¹	The role of flow stasis in transcatheter aortic valve leaflet thrombosis. <i>Journal of Thoracic and Cardiovascular Surgery</i> , 2020 ,	1.5	8
4 ¹⁰	miR-214 is Stretch-Sensitive in Aortic Valve and Inhibits Aortic Valve Calcification. <i>Annals of Biomedical Engineering</i> , 2019 , 47, 1106-1115	4.6	9
4 ⁰⁹	Might Coronary Flow Influence Transcatheter Heart Valve Neo-Sinus Thrombosis?. <i>Circulation: Cardiovascular Interventions</i> , 2019 , 12, e008005	5.8	4
4 ⁰⁸	Analysis of Inlet Velocity Profiles in Numerical Assessment of Fontan Hemodynamics. <i>Annals of Biomedical Engineering</i> , 2019 , 47, 2258-2270	4.6	15

407	Three-dimensional extent of flow stagnation in transcatheter heart valves. <i>Journal of the Royal Society Interface</i> , 2019 , 16, 20190063	4	13
406	ARE FONTAN HEMODYNAMICS PREDICTIVE OF FUTURE LIVER DISEASE IN FONTAN PATIENTS?. <i>Journal of the American College of Cardiology</i> , 2019 , 73, 581	4.6	
405	Characteristics of surgical prosthetic heart valves and problems around labeling: A document from the European Association for Cardio-Thoracic Surgery (EACTS)-The Society of Thoracic Surgeons (STS)-American Association for Thoracic Surgery (AATS) Valve Labelling Task Force. <i>Journal of Thoracic and Cardiovascular Surgery</i> , 2019 , 158, 1041-1054	1.5	20
404	Left ventricular flow in the presence of aortic regurgitation. <i>Journal of Biomechanics</i> , 2019 , 87, 211	2.8	
403	On the simulation of mitral valve function in health, disease, and treatment. <i>Journal of Biomechanical Engineering</i> , 2019 ,	2.1	18
402	CORONARY FLOW INFLUENCES TRANSCATHETER AORTIC VALVE LEAFLET THROMBOSIS RISK. <i>Journal of the American College of Cardiology</i> , 2019 , 73, 1035	4.6	
401	Development of a Computational Method for Simulating Tricuspid Valve Dynamics. <i>Annals of Biomedical Engineering</i> , 2019 , 47, 1422-1434	4.6	15
400	An in Vitro analysis of the PediMag and CentriMag for right-sided failing Fontan support. <i>Journal of Thoracic and Cardiovascular Surgery</i> , 2019 , 158, 1413-1421	1.5	7
399	Relationship of Aortic Stiffness to Exercise and Ventricular Volumes in Single Ventricles. <i>Annals of Thoracic Surgery</i> , 2019 , 108, 574-580	2.6	0
398	Neosinus Flow Stasis Correlates With Thrombus Volume Post-TAVR: A Patient-Specific In Vitro Study. <i>JACC: Cardiovascular Interventions</i> , 2019 , 12, 1288-1290	4.2	9
397	The first cohort of prospective Fontan surgical planning patients with follow-up data: How accurate is surgical planning?. <i>Journal of Thoracic and Cardiovascular Surgery</i> , 2019 , 157, 1146-1155	1.5	21
396	Tricuspid Valve Annular Mechanics: Interactions with and Implications for Transcatheter Devices. <i>Cardiovascular Engineering and Technology</i> , 2019 , 10, 193-204	2.1	6
395	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-1 α Hypoxia-Inducible Factor-1 β Pathway in Endothelial Cells. <i>Arteriosclerosis, Thrombosis, and Vascular Biology</i> , 2019 , 39, 467-481	9.1	32
394	In Vitro Examination of the VentiFlo True Pulse Pump for Failing Fontan Support. <i>Artificial Organs</i> , 2019 , 43, 181-188	2.5	5
393	Outcomes of Single Ventricle Patients Undergoing the Kawashima Procedure: Can We Do Better?. <i>World Journal for Pediatric & Congenital Heart Surgery</i> , 2019 , 10, 20-27	1.1	4
392	Novel In Vitro Test Systems and Insights for Transcatheter Mitral Valve Design, Part II: Radial Expansion Forces. <i>Annals of Biomedical Engineering</i> , 2019 , 47, 392-402	4.6	4
391	Novel In Vitro Test Systems and Insights for Transcatheter Mitral Valve Design, Part I: Paravalvular Leakage. <i>Annals of Biomedical Engineering</i> , 2019 , 47, 381-391	4.6	4
390	The effect of respiration-driven flow waveforms on hemodynamic metrics used in Fontan surgical planning. <i>Journal of Biomechanics</i> , 2019 , 82, 87-95	2.8	13

389	Suture dehiscence and collagen content in the human mitral and tricuspid annuli. <i>Biomechanics and Modeling in Mechanobiology</i> , 2019 , 18, 291-299	3.7	7
388	Characterization of aortic root geometry in transcatheter aortic valve replacement patients. <i>Catheterization and Cardiovascular Interventions</i> , 2019 , 93, 134-140	2.6	8
387	Computational Fluid Dynamics Assessment Associated with Transcatheter Heart Valve Prostheses: A Position Paper of the ISO Working Group. <i>Cardiovascular Engineering and Technology</i> , 2018 , 9, 289-299 ^{2.1}	2.1	20
386	Impact of hemodynamics and fluid energetics on liver fibrosis after Fontan operation. <i>Journal of Thoracic and Cardiovascular Surgery</i> , 2018 , 156, 267-275	1.5	25
385	Fontan Surgical Planning: Previous Accomplishments, Current Challenges, and Future Directions. <i>Journal of Cardiovascular Translational Research</i> , 2018 , 11, 133-144	3.2	37
384	Standardized Definition of Structural Valve Degeneration for Surgical and Transcatheter Bioprosthetic Aortic Valves. <i>Circulation</i> , 2018 , 137, 388-399	16.3	212
383	Effects of annular contraction on anterior leaflet strain using an in vitro simulator with a dynamically contracting mitral annulus. <i>Journal of Biomechanics</i> , 2018 , 66, 51-56	2.8	3
382	Valve mediated hemodynamics and their association with distal ascending aortic diameter in bicuspid aortic valve subjects. <i>Journal of Magnetic Resonance Imaging</i> , 2018 , 47, 246-254	5.4	21
381	Mitral annuloplasty ring suture forces: Impact of surgeon, ring, and use conditions. <i>Journal of Thoracic and Cardiovascular Surgery</i> , 2018 , 155, 131-139.e3	1.5	11
380	Leg lean mass correlates with exercise systemic output in young Fontan patients. <i>Heart</i> , 2018 , 104, 680-684	4.9	13
379	Response by Sharma et al to Letter Regarding Article, "The Fluid Mechanics of Transcatheter Heart Valve Leaflet Thrombosis in the Neosinus". <i>Circulation</i> , 2018 , 137, 2094-2095	16.3	
378	Flow visualization of the non-parallel jet-vortex interaction. <i>Journal of Visualization</i> , 2018 , 21, 533-542	1.5	4
377	Impact of simulated MitraClip on forward flow obstruction in the setting of mitral leaflet tethering: An in vitro investigation. <i>Catheterization and Cardiovascular Interventions</i> , 2018 , 92, 797-807	2.6	1
376	Mitral annuloplasty ring flexibility preferentially reduces posterior suture forces. <i>Journal of Biomechanics</i> , 2018 , 75, 58-66	2.8	8
375	Using a Novel In Vitro Fontan Model and Condition-Specific Real-Time MRI Data to Examine Hemodynamic Effects of Respiration and Exercise. <i>Annals of Biomedical Engineering</i> , 2018 , 46, 135-147	4.6	14
374	The Advantages of Viscous Dissipation Rate over Simplified Power Loss as a Fontan Hemodynamic Metric. <i>Annals of Biomedical Engineering</i> , 2018 , 46, 404-416	4.6	23
373	Measurement Technologies for Heart Valve Function 2018 , 115-149		0
372	Transcatheter Mitral Valve Planning and the Neo-LVOT: Utilization of Virtual Simulation Models and 3D Printing. <i>Current Treatment Options in Cardiovascular Medicine</i> , 2018 , 20, 99	2	27

371 Fundamentals of Image-Based Computational Simulation **2018**, 191-197

370 The Fluid Mechanics of Transcatheter Heart Valve Leaflet Thrombosis in the Neosinus. *Circulation*, **2017**, 136, 1598-1609 16.3 105

369 In Vitro Examination of the HeartWare CircuLite Ventricular Assist Device in the Fontan Connection. *ASAIO Journal*, **2017**, 63, 482-489 3.4 5

368 Fluid-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 2.5 27

367 Can time-averaged flow boundary conditions be used to meet the clinical timeline for Fontan surgical planning?. *Journal of Biomechanics*, **2017**, 50, 172-179 2.8 26

366 Ex Vivo Methods for Informing Computational Models of the Mitral Valve. *Annals of Biomedical Engineering*, **2017**, 45, 496-507 4.6 37

365 Fluid-Structure Interaction Analysis of Ruptured Mitral Chordae Tendineae. *Annals of Biomedical Engineering*, **2017**, 45, 619-631 4.6 16

364 On the Mechanics of Transcatheter Aortic Valve Replacement. *Annals of Biomedical Engineering*, **2017**, 45, 310-331 4.6 56

363 The Effect of Valve-in-Valve Implantation Height on Sinus Flow. *Annals of Biomedical Engineering*, **2017**, 45, 405-412 4.6 32

362 Personalized mitral valve closure computation and uncertainty analysis from 3D echocardiography. *Medical Image Analysis*, **2017**, 35, 238-249 14.7 9

361 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 4.2 3

360 Aortic Regurgitation Generates a Kinematic Obstruction Which Hinders Left Ventricular Filling. *Annals of Biomedical Engineering*, **2017**, 45, 1305-1314 4.6 17

359 A Method for In Vitro TCPC Compliance Verification. *Journal of Biomechanical Engineering*, **2017**, 139, 2.1 8

358 Suture Dehiscence in the Tricuspid Annulus: An Ex Vivo Analysis of Tissue Strength and Composition. *Annals of Thoracic Surgery*, **2017**, 104, 820-826 2.6 13

357 Effect of Fontan geometry on exercise haemodynamics and its potential implications. *Heart*, **2017**, 103, 1806-1812 4.9 34

356 Mitral Valve Chordae Tendineae: Topological and Geometrical Characterization. *Annals of Biomedical Engineering*, **2017**, 45, 378-393 4.6 27

355 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 2.1 14

354 Fluid Dynamics of Prosthetic Valves **2017**, 433-454

353	Valve Type, Size, and Deployment Location Affect Hemodynamics in an In Vitro Valve-in-Valve Model. <i>JACC: Cardiovascular Interventions</i> , 2016 , 9, 1618-28	4.2	49
352	Three-Dimensional Field Optimization Method: Gold-Standard Validation of a Novel Color Doppler Method for Quantifying Mitral Regurgitation. <i>Journal of the American Society of Echocardiography</i> , 2016 , 29, 917-925	5.7	10
351	How Local Annular Force and Collagen Density Govern Mitral Annuloplasty Ring Dehiscence Risk. <i>Annals of Thoracic Surgery</i> , 2016 , 102, 518-26	2.6	26
350	Haemodynamic impact of stent implantation for lateral tunnel Fontan stenosis: a patient-specific computational assessment. <i>Cardiology in the Young</i> , 2016 , 26, 116-26	1	6
349	Long-Term Durability of Carpentier-Edwards Magna Ease Valve: A One Billion Cycle In Vitro Study. <i>Annals of Thoracic Surgery</i> , 2016 , 101, 1759-65	2.6	25
348	Validation of Cardiac Output as Reported by a Permanently Implanted Wireless Sensor. <i>Journal of Medical Devices, Transactions of the ASME</i> , 2016 , 10,	1.2	3
347	New mitral annular force transducer optimized to distinguish annular segments and multi-plane forces. <i>Journal of Biomechanics</i> , 2016 , 49, 742-748	2.8	6
346	A pulsatile hemodynamic evaluation of the commercially available bifurcated Y-graft Fontan modification and comparison with the lateral tunnel and extracardiac conduits. <i>Journal of Thoracic and Cardiovascular Surgery</i> , 2016 , 151, 1529-36	1.5	29
345	Respiratory Effects on Fontan Circulation During Rest and Exercise Using Real-Time Cardiac Magnetic Resonance Imaging. <i>Annals of Thoracic Surgery</i> , 2016 , 101, 1818-25	2.6	28
344	Atrial systole enhances intraventricular filling flow propagation during increasing heart rate. <i>Journal of Biomechanics</i> , 2016 , 49, 618-23	2.8	4
343	SURGEM: A solid modeling tool for planning and optimizing pediatric heart surgeries. <i>CAD Computer Aided Design</i> , 2016 , 70, 3-12	2.8	16
342	Novel Method to Track Soft Tissue Deformation by Micro-Computed Tomography: Application to the Mitral Valve. <i>Annals of Biomedical Engineering</i> , 2016 , 44, 2273-81	4.6	11
341	Hemodynamic Impact of Superior Vena Cava Placement in the Y-Graft Fontan Connection. <i>Annals of Thoracic Surgery</i> , 2016 , 101, 183-9	2.6	6
340	Identification of side- and shear-dependent microRNAs regulating porcine aortic valve pathogenesis. <i>Scientific Reports</i> , 2016 , 6, 25397	4.7	31
339	Mitral annuloplasty ring suture dehiscence: In search of more robust techniques. <i>Journal of Thoracic and Cardiovascular Surgery</i> , 2016 , 152, 1640	1.5	1
338	The hemodynamic effects of acute aortic regurgitation into a stiffened left ventricle resulting from chronic aortic stenosis. <i>American Journal of Physiology - Heart and Circulatory Physiology</i> , 2016 , 310, H1801-7	5	5
337	Real-time recording of annuloplasty suture dehiscence reveals a potential mechanism for dehiscence cascade. <i>Journal of Thoracic and Cardiovascular Surgery</i> , 2016 , 152, e15-7	1.5	8
336	High-resolution subject-specific mitral valve imaging and modeling: experimental and computational methods. <i>Biomechanics and Modeling in Mechanobiology</i> , 2016 , 15, 1619-1630	3.7	22

335	Fluid-Structure Interaction Analysis of Papillary Muscle Forces Using a Comprehensive Mitral Valve Model with 3D Chordal Structure. <i>Annals of Biomedical Engineering</i> , 2016 , 44, 942-53	4.6	43
334	A Comprehensive Framework for the Characterization of the Complete Mitral Valve Geometry for the Development of a Population-Averaged Model. <i>Lecture Notes in Computer Science</i> , 2015 , 164-171	0.8	12
333	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
332	Exercise capacity in the Bidirectional Glenn physiology: Coupling cardiac index, ventricular function and oxygen extraction ratio. <i>Journal of Biomechanics</i> , 2015 , 48, 1997-2004	2.8	3
331	On the effects of leaflet microstructure and constitutive model on the closing behavior of the mitral valve. <i>Biomechanics and Modeling in Mechanobiology</i> , 2015 , 14, 1281-302	3.7	45
330	MRI-based Protocol to Characterize the Relationship Between Bicuspid Aortic Valve Morphology and Hemodynamics. <i>Annals of Biomedical Engineering</i> , 2015 , 43, 1815-27	4.6	7
329	Energetic implications of vessel growth and flow changes over time in Fontan patients. <i>Annals of Thoracic Surgery</i> , 2015 , 99, 163-70	2.6	28
328	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
327	Surgical planning of the total cavopulmonary connection: robustness analysis. <i>Annals of Biomedical Engineering</i> , 2015 , 43, 1321-34	4.6	17
326	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	3.7	28
325	Exercise capacity in single-ventricle patients after Fontan correlates with haemodynamic energy loss in TCPC. <i>Heart</i> , 2015 , 101, 139-43	4.9	77
324	Cardiovascular magnetic resonance compatible physical model of the left ventricle for multi-modality characterization of wall motion and hemodynamics. <i>Journal of Cardiovascular Magnetic Resonance</i> , 2015 , 17, 51	6.6	18
323	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	30
322	How Can We Help a Patient With a Small Failing Bioprosthesis?: An In Vitro Case Study. <i>JACC: Cardiovascular Interventions</i> , 2015 , 8, 2026-2033	4.2	30
321	Role of Mitral Annulus Diastolic Geometry on Intraventricular Filling Dynamics. <i>Journal of Biomechanical Engineering</i> , 2015 , 137, 121007	2.1	7
320	Comparison of hinge microflow fields of bileaflet mechanical heart valves implanted in different sinus shape and downstream geometry. <i>Computer Methods in Biomechanics and Biomedical Engineering</i> , 2015 , 18, 1785-96	2.1	8
319	Does TCPC power loss really affect exercise capacity?. <i>Heart</i> , 2015 , 101, 575-6	4.9	3
318	Relationship of single ventricle filling and preload to total cavopulmonary connection hemodynamics. <i>Annals of Thoracic Surgery</i> , 2015 , 99, 911-7	2.6	17

317	High Transcatheter Valve Replacement May Reduce Washout in the Aortic Sinuses: an In-Vitro Study. <i>Journal of Heart Valve Disease</i> , 2015 , 24, 22-9		14
316	Multi-modal Validation Framework of Mitral Valve Geometry and Functional Computational Models. <i>Lecture Notes in Computer Science</i> , 2015 , 239-248	0.8	1
315	Blood damage through a bileaflet mechanical heart valve: a quantitative computational study using a multiscale suspension flow solver. <i>Journal of Biomechanical Engineering</i> , 2014 , 136, 101009	2.1	18
314	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
313	Comparison by magnetic resonance phase contrast imaging of pulse-wave velocity in patients with single ventricle who have reconstructed aortas versus those without. <i>American Journal of Cardiology</i> , 2014 , 114, 1902-7	2.9	8
312	Response to letter regarding article, "accurate assessment of aortic stenosis: a review of diagnostic modalities and hemodynamics". <i>Circulation</i> , 2014 , 130, e135	16.3	1
311	Fontan pathway growth: a quantitative evaluation of lateral tunnel and extracardiac cavopulmonary connections using serial cardiac magnetic resonance. <i>Annals of Thoracic Surgery</i> , 2014 , 97, 916-22	2.6	23
310	Quantitative Evaluation of Annuloplasty on Mitral Valve Chordae Tendineae Forces to Supplement Surgical Planning Model Development. <i>Cardiovascular Engineering and Technology</i> , 2014 , 5, 35-43	2.1	20
309	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	4.6	19
308	Fontan hemodynamics from 100 patient-specific cardiac magnetic resonance studies: a computational fluid dynamics analysis. <i>Journal of Thoracic and Cardiovascular Surgery</i> , 2014 , 148, 1481-9	1.5	58
307	Clinical evaluation of new heart valve prostheses: update of objective performance criteria. <i>Annals of Thoracic Surgery</i> , 2014 , 98, 1865-74	2.6	20
306	Suture forces in undersized mitral annuloplasty: novel device and measurements. <i>Annals of Thoracic Surgery</i> , 2014 , 98, 305-9	2.6	18
305	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	4.6	47
304	Accurate assessment of aortic stenosis: a review of diagnostic modalities and hemodynamics. <i>Circulation</i> , 2014 , 129, 244-53	16.3	82
303	Reply to the editor. <i>Journal of Thoracic and Cardiovascular Surgery</i> , 2014 , 148, 1771-2	1.5	
302	Computational simulations of flow dynamics and blood damage through a bileaflet mechanical heart valve scaled to pediatric size and flow. <i>Journal of Biomechanics</i> , 2014 , 47, 3169-77	2.8	17
301	Mitral valve annuloplasty and anterior leaflet augmentation for functional ischemic mitral regurgitation: quantitative comparison of coaptation and subvalvular tethering. <i>Journal of Thoracic and Cardiovascular Surgery</i> , 2014 , 148, 1688-93	1.5	20
300	Mitral valve annular downsizing forces: implications for annuloplasty device development. <i>Journal of Thoracic and Cardiovascular Surgery</i> , 2014 , 148, 83-9	1.5	11

299	Transcatheter aortic valve implantation can potentially impact short-term and long-term functionality: an in vitro study. <i>International Journal of Cardiology</i> , 2014 , 172, e421-2	3	3
298	Geometric characterization of patient-specific total cavopulmonary connections and its relationship to hemodynamics. <i>JACC: Cardiovascular Imaging</i> , 2014 , 7, 215-24	8.1	50
297	Computational modeling of Fontan physiology: at the crossroads of pediatric cardiology and biomedical engineering. <i>International Journal of Cardiovascular Imaging</i> , 2014 , 30, 1073-84	2.4	12
296	Effect of high altitude exposure on the hemodynamics of the bidirectional Glenn physiology: modeling incremented pulmonary vascular resistance and heart rate. <i>Journal of Biomechanics</i> , 2014 , 47, 1846-52	2.8	7
295	Impact of mitral valve geometry on hemodynamic efficacy of surgical repair in secondary mitral regurgitation. <i>Journal of Heart Valve Disease</i> , 2014 , 23, 79-87		21
294	Hemodynamic comparison of mitral valve repair: techniques for a flail anterior leaflet. <i>Journal of Heart Valve Disease</i> , 2014 , 23, 171-6		7
293	Numerical analysis of the hemodynamic performance of bileaflet mechanical heart valves at different implantation angles. <i>Journal of Heart Valve Disease</i> , 2014 , 23, 642-50		
292	The role of inorganic pyrophosphate in aortic valve calcification. <i>Journal of Heart Valve Disease</i> , 2014 , 23, 387-94		17
291	Heart Valve Dynamics 2014 , 9-1-9-32		
290	Blood Damage Quantification in Cardiovascular Flows Through Medical Devices Using a Novel Suspension Flow Method. <i>Journal of Medical Devices, Transactions of the ASME</i> , 2013 , 7, 0409091-409091 ^{1,2}		
289	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	4.6	12
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