

A computational tool to support pre-operative planning

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Citation Report

#	ARTICLE	IF	CITATIONS
1	Patient-specific modeling of biomechanical interaction in transcatheter aortic valve deployment. <i>Journal of Biomechanics</i> , 2012, 45, 1965-1971.	2.1	80
2	Impact of modeling fluid-structure interaction in the computational analysis of aortic root biomechanics. <i>Medical Engineering and Physics</i> , 2013, 35, 1721-1730.	1.7	76
3	Finite Element Modeling of Mitral Valve Dynamic Deformation Using Patient-Specific Multi-Slices Computed Tomography Scans. <i>Annals of Biomedical Engineering</i> , 2013, 41, 142-153.	2.5	95
4	Aortic root 3D parametric morphological model from 2D-echo images. <i>Computers in Biology and Medicine</i> , 2013, 43, 2196-2204.	7.0	20
5	Aortic Biological Prosthetic Valve for Open-Surgery and Percutaneous Implant: Procedure Simulation and Performance Assessment. <i>Studies in Mechanobiology, Tissue Engineering and Biomaterials</i> , 2013, , 131-168.	1.0	1
6	Simulation of transcatheter aortic valve implantation: a patient-specific finite element approach. <i>Computer Methods in Biomechanics and Biomedical Engineering</i> , 2014, 17, 1347-1357.	1.6	80
7	Quantification of structural compliance of aged human and porcine aortic root tissues. <i>Journal of Biomedical Materials Research - Part A</i> , 2014, 102, 2365-2374.	4.0	3
8	Patient-specific simulation of a stentless aortic valve implant: the impact of fibres on leaflet performance. <i>Computer Methods in Biomechanics and Biomedical Engineering</i> , 2014, 17, 277-285.	1.6	33
9	Simulation of transcatheter aortic valve implantation through patient-specific finite element analysis: Two clinical cases. <i>Journal of Biomechanics</i> , 2014, 47, 2547-2555.	2.1	99
10	Stability and Conservation Properties of Collocated Constraints in Immersogeometric Fluid-Thin Structure Interaction Analysis. <i>Communications in Computational Physics</i> , 2015, 18, 1147-1180.	1.7	35
11	Coupled Simulation of Heart Valves: Applications to Clinical Practice. <i>Annals of Biomedical Engineering</i> , 2015, 43, 1626-1639.	2.5	6
12	Enhancing physiologic simulations using supervised learning on coarse mesh solutions. <i>Journal of the Royal Society Interface</i> , 2015, 12, 20141073.	3.4	16
13	Patient-specific isogeometric structural analysis of aortic valve closure. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2015, 284, 508-520.	6.6	102
14	Prediction of patient-specific post-operative outcomes of TAVI procedure: The impact of the positioning strategy on valve performance. <i>Journal of Biomechanics</i> , 2016, 49, 2513-2519.	2.1	71
15	Computational methods for the aortic heart valve and its replacements. <i>Expert Review of Medical Devices</i> , 2017, 14, 849-866.	2.8	52
16	A patient-specific aortic valve model based on moving resistive immersed implicit surfaces. <i>Biomechanics and Modeling in Mechanobiology</i> , 2017, 16, 1779-1803.	2.8	41
17	Computational comparison of aortic root stresses in presence of stentless and stented aortic valve bio-prostheses. <i>Computer Methods in Biomechanics and Biomedical Engineering</i> , 2017, 20, 171-181.	1.6	18
18	A framework for designing patient-specific bioprosthetic heart valves using immersogeometric fluid-structure interaction analysis. <i>International Journal for Numerical Methods in Biomedical Engineering</i> , 2018, 34, e2938.	2.1	93

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19	Computational Modeling of Heart Valves: Understanding and Predicting Disease. , 2018, , 385-411.		0
20	Aortic Expansion Induces Lumen Narrowing in Anomalous Coronary Arteries: A Parametric Structural Finite Element Analysis. Journal of Biomechanical Engineering, 2018, 140, .	1.3	13
21	Predictive Computational Models of Transcatheter Aortic Valve Implantation. , 2019, , 29-46.		1
22	Computer modeling and simulation of heart valve function and intervention. , 2019, , 177-211.		3
23	Automatic estimation of aortic and mitral valve displacements in dynamic CTA with 4D graph-cuts. Medical Image Analysis, 2020, 65, 101748.	11.6	4
24	In silico biomechanical design of the metal frame of transcatheter aortic valves: multi-objective shape and cross-sectional size optimization. Structural and Multidisciplinary Optimization, 2021, 64, 1825-1842.	3.5	15
25	Bioprosthetic Valve Size Selection to Optimize Aortic Valve Replacement Surgical Outcome: A Fluid-Structure Interaction Modeling Study. CMES - Computer Modeling in Engineering and Sciences, 2021, 127, 159-174.	1.1	0
26	Biomechanics of Transcatheter Aortic Valve Implant. Bioengineering, 2022, 9, 299.	3.5	0
27	Impact of nickel-titanium super-elastic material properties on the mechanical performance of self-expandable transcatheter aortic valves. Journal of the Mechanical Behavior of Biomedical Materials, 2023, 138, 105623.	3.1	5
28	Clinical Applications of 3D Modeling and Printing for Intracardiac Valves. , 2023, , 567-590.		1
29	An FSEI approach for the assessment of stenotic aortic valve effects on the left heart hemodynamics. Computers and Fluids, 2023, 265, 106017.	2.5	1