

# Gil Marom

## List of Publications by Citations

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43  
papers

895  
citations

18  
h-index

29  
g-index

44  
ext. papers

1,115  
ext. citations

2.8  
avg. IF

4.53  
L-index

#	Paper	IF	Citations
43	Cusp height in aortic valves. <i>Journal of Thoracic and Cardiovascular Surgery</i> , <b>2013</b> , 146, 269-74	1.5	118
42	A fluid-structure interaction model of the aortic valve with coaptation and compliant aortic root. <i>Medical and Biological Engineering and Computing</i> , <b>2012</b> , 50, 173-82	3.1	66
41	Aortic root numeric model: annulus diameter prediction of effective height and coaptation in post-aortic valve repair. <i>Journal of Thoracic and Cardiovascular Surgery</i> , <b>2013</b> , 145, 406-411.e1	1.5	61
40	Patient-specific simulation of transcatheter aortic valve replacement: impact of deployment options on paravalvular leakage. <i>Biomechanics and Modeling in Mechanobiology</i> , <b>2019</b> , 18, 435-451	3.8	56
39	A general three-dimensional parametric geometry of the native aortic valve and root for biomechanical modeling. <i>Journal of Biomechanics</i> , <b>2012</b> , 45, 2392-7	2.9	53
38	Numerical Methods for Fluid-Structure Interaction Models of Aortic Valves. <i>Archives of Computational Methods in Engineering</i> , <b>2015</b> , 22, 595-620	7.8	48
37	Hemodynamic and thrombogenic analysis of a trileaflet polymeric valve using a fluid-structure interaction approach. <i>Journal of Biomechanics</i> , <b>2015</b> , 48, 3641-9	2.9	41
36	Numerical Simulation of the Airflow Across Trees in a Windbreak. <i>Boundary-Layer Meteorology</i> , <b>2010</b> , 135, 89-107	3.4	38
35	Fluid-structure interaction model of aortic valve with porcine-specific collagen fiber alignment in the cusps. <i>Journal of Biomechanical Engineering</i> , <b>2013</b> , 135, 101001-6	2.1	33
34	Novel Polymeric Valve for Transcatheter Aortic Valve Replacement Applications: In Vitro Hemodynamic Study. <i>Annals of Biomedical Engineering</i> , <b>2019</b> , 47, 113-125	4.7	33
33	Fully coupled fluid-structure interaction model of congenital bicuspid aortic valves: effect of asymmetry on hemodynamics. <i>Medical and Biological Engineering and Computing</i> , <b>2013</b> , 51, 839-48	3.1	28
32	Numerical model of the aortic root and valve: optimization of graft size and sinotubular junction to annulus ratio. <i>Journal of Thoracic and Cardiovascular Surgery</i> , <b>2013</b> , 146, 1227-31	1.5	28
31	Progressive aortic valve calcification: three-dimensional visualization and biomechanical analysis. <i>Journal of Biomechanics</i> , <b>2015</b> , 48, 489-97	2.9	28
30	Effect of Balloon-Expandable Transcatheter Aortic Valve Replacement Positioning: A Patient-Specific Numerical Model. <i>Artificial Organs</i> , <b>2016</b> , 40, E292-E304	2.6	27
29	Fluid-structure interaction modeling of calcific aortic valve disease using patient-specific three-dimensional calcification scans. <i>Medical and Biological Engineering and Computing</i> , <b>2016</b> , 54, 1683-1694	3.1	24
28	Lagrangian methods for blood damage estimation in cardiovascular devices--How numerical implementation affects the results. <i>Expert Review of Medical Devices</i> , <b>2016</b> , 13, 113-22	3.5	22
27	Numerical evaluation of transcatheter aortic valve performance during heart beating and its post-deployment fluid-structure interaction analysis. <i>Biomechanics and Modeling in Mechanobiology</i> , <b>2020</b> , 19, 1725-1740	3.8	21

26	Biomechanical modeling of transcatheter aortic valve replacement in a stenotic bicuspid aortic valve: deployments and paravalvular leakage. <i>Medical and Biological Engineering and Computing</i> , <b>2019</b> , 57, 2129-2143	3.1	20
25	Comparative Fluid-Structure Interaction Analysis of Polymeric Transcatheter and Surgical Aortic Valves Hemodynamics and Structural Mechanics. <i>Journal of Biomechanical Engineering</i> , <b>2018</b> ,	2.1	18
24	Fluid-Structure Interaction Models of Bicuspid Aortic Valves: The Effects of Nonfused Cusp Angles. <i>Journal of Biomechanical Engineering</i> , <b>2018</b> , 140,	2.1	18
23	Aortic root numeric model: correlation between intraoperative effective height and diastolic coaptation. <i>Journal of Thoracic and Cardiovascular Surgery</i> , <b>2013</b> , 145, 303-4	1.5	17
22	Numerical model of full-cardiac cycle hemodynamics in a total artificial heart and the effect of its size on platelet activation. <i>Journal of Cardiovascular Translational Research</i> , <b>2014</b> , 7, 788-96	3.3	14
21	Reducing the effects of compressibility in DPD-based blood flow simulations through severe stenotic microchannels. <i>Journal of Computational Physics</i> , <b>2017</b> , 335, 812-827	4.1	13
20	The effect of pathologic venous valve on neighboring valves: fluid-structure interactions modeling. <i>Medical and Biological Engineering and Computing</i> , <b>2017</b> , 55, 991-999	3.1	11
19	Imaging analysis of collagen fiber networks in cusps of porcine aortic valves: effect of their local distribution and alignment on valve functionality. <i>Computer Methods in Biomechanics and Biomedical Engineering</i> , <b>2016</b> , 19, 1002-8	2.1	10
18	Simulation of Transcatheter Aortic Valve Replacement in patient-specific aortic roots: Effect of crimping and positioning on device performance. <i>Annual International Conference of the IEEE Engineering in Medicine and Biology Society IEEE Engineering in Medicine and Biology Society Annual International Conference</i> , <b>2015</b> , 2015, 282-5	0.9	8
17	Numerical models of valve-in-valve implantation: effect of intentional leaflet laceration on the anchorage. <i>Biomechanics and Modeling in Mechanobiology</i> , <b>2020</b> , 19, 415-426	3.8	8
16	Three-dimensional morphological analysis of placental terminal villi. <i>Interface Focus</i> , <b>2019</b> , 9, 20190037	3.9	7
15	A New Growth Model for Aortic Valve Calcification. <i>Journal of Biomechanical Engineering</i> , <b>2018</b> , 140,	2.1	6
14	Numerical models for assessing the risk of leaflet thrombosis post-transcatheter aortic valve-in-valve implantation. <i>Royal Society Open Science</i> , <b>2020</b> , 7, 201838	3.3	6
13	Impact of BASILICA on the thrombogenicity potential of valve-in-valve implantations. <i>Journal of Biomechanics</i> , <b>2021</b> , 118, 110309	2.9	3
12	Effect of asymmetry on hemodynamics in fluid-structure interaction model of congenital bicuspid aortic valves. <i>Annual International Conference of the IEEE Engineering in Medicine and Biology Society IEEE Engineering in Medicine and Biology Society Annual International Conference</i> , <b>2012</b> , 2012, 637-40	0.9	2
11	New Insights into Valve Hemodynamics. <i>Rambam Maimonides Medical Journal</i> , <b>2020</b> , 11,	1.8	2
10	Design Effect of Metallic (Durable) and Polymeric (Resorbable) Stents on Blood Flow and Platelet Activation. <i>Artificial Organs</i> , <b>2018</b> , 42, 1148-1156	2.6	2
9	Patient-Specific Numerical Model of Calcific Aortic Stenosis and Its Treatment by Balloon-Expandable Transcatheter Aortic Valve: Effect of Positioning on the Anchorage. <i>Lecture Notes in Bioengineering</i> , <b>2018</b> , 259-263	0.8	1

8	Authorsareply regarding "A general three dimensional parametric geometry of the native aortic valve and root for biomechanical modeling". <i>Journal of Biomechanics</i> , <b>2014</b> , 47, 1239	2.9	1
7	Numerical biomechanics modelling of indirect mitral annuloplasty treatments for functional mitral regurgitation.. <i>Royal Society Open Science</i> , <b>2022</b> , 9, 211464	3.3	1
6	Numerical Biomechanics Models of the Interaction Between a Novel Transcatheter Mitral Valve Device and the Subvalvular Apparatus. <i>Innovations: Technology and Techniques in Cardiothoracic and Vascular Surgery</i> , <b>2021</b> , 16, 327-333	1.5	1
5	Numerical Models of Spinal Cord Trauma: The Effect of Cerebrospinal Fluid Pressure and Epidural Fat on the Results. <i>Journal of Neurotrauma</i> , <b>2021</b> , 38, 2176-2185	5.4	1
4	Numerical model of total artificial heart hemodynamics and the effect of its size on stress accumulation. <i>Annual International Conference of the IEEE Engineering in Medicine and Biology Society IEEE Engineering in Medicine and Biology Society Annual International Conference</i> , <b>2014</b> , 2014, 5651-4	0.9	0
3	Cardiac mesh morphing method for finite element modeling of heart failure with preserved ejection fraction.. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , <b>2021</b> , 126, 104937	4.1	0
2	ONE-POINT ADVICE: Optimizing Aortic Valve Repair Techniques with Computational Models <b>2019</b> , 45-51		
1	The effect of clinically recommended Evolut sizes on anchorage forces after BASILICA. <i>Journal of Biomechanics</i> , <b>2021</b> , 118, 110303	2.9	