# Gil Marom

## List of Publications by Year in Descending Order



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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 | Numerical biomechanics modelling of indirect mitral annuloplasty treatments for functional mitral regurgitation.. *Royal Society Open Science*, **2022**, 9, 211464 | 3.3 | 1 |
| 42 | Cardiac mesh morphing method for finite element modeling of heart failure with preserved ejection fraction.. *Journal of the Mechanical Behavior of Biomedical Materials*, **2021**, 126, 104937 | 4.1 | 0 |
| 41 | Impact of BASILICA on the thrombogenicity potential of valve-in-valve implantations. *Journal of Biomechanics*, **2021**, 118, 110309 | 2.9 | 3 |
| 40 | The effect of clinically recommended Evolut sizes on anchorage forces after BASILICA. *Journal of Biomechanics*, **2021**, 118, 110303 | 2.9 | |
| 39 | Numerical Biomechanics Models of the Interaction Between a Novel Transcatheter Mitral Valve Device and the Subvalvular Apparatus. *Innovations: Technology and Techniques in Cardiothoracic and Vascular Surgery*, **2021**, 16, 327-333 | 1.5 | 1 |
| 38 | Numerical Models of Spinal Cord Trauma: The Effect of Cerebrospinal Fluid Pressure and Epidural Fat on the Results. *Journal of Neurotrauma*, **2021**, 38, 2176-2185 | 5.4 | 1 |
| 37 | Numerical evaluation of transcatheter aortic valve performance during heart beating and its post-deployment fluid-structure interaction analysis. *Biomechanics and Modeling in Mechanobiology*, **2020**, 19, 1725-1740 | 3.8 | 21 |
| 36 | New Insights into Valve Hemodynamics. *Rambam Maimonides Medical Journal*, **2020**, 11, | 1.8 | 2 |
| 35 | Numerical models for assessing the risk of leaflet thrombosis post-transcatheter aortic valve-in-valve implantation. *Royal Society Open Science*, **2020**, 7, 201838 | 3.3 | 6 |
| 34 | Numerical models of valve-in-valve implantation: effect of intentional leaflet laceration on the anchorage. *Biomechanics and Modeling in Mechanobiology*, **2020**, 19, 415-426 | 3.8 | 8 |
| 33 | Three-dimensional morphological analysis of placental terminal villi. *Interface Focus*, **2019**, 9, 20190037 | 3.9 | 7 |
| 32 | ONE-POINT ADVICE: Optimizing Aortic Valve Repair Techniques with Computational Models **2019**, 45-51 | | |
| 31 | Biomechanical modeling of transcatheter aortic valve replacement in a stenotic bicuspid aortic valve: deployments and paravalvular leakage. *Medical and Biological Engineering and Computing*, **2019**, 57, 2129-2143 | 3.1 | 20 |
| 30 | Novel Polymeric Valve for Transcatheter Aortic Valve Replacement Applications: In Vitro Hemodynamic Study. *Annals of Biomedical Engineering*, **2019**, 47, 113-125 | 4.7 | 33 |
| 29 | Patient-specific simulation of transcatheter aortic valve replacement: impact of deployment options on paravalvular leakage. *Biomechanics and Modeling in Mechanobiology*, **2019**, 18, 435-451 | 3.8 | 56 |
| 28 | Patient-Specific Numerical Model of Calcific Aortic Stenosis and Its Treatment by Balloon-Expandable Transcatheter Aortic Valve: Effect of Positioning on the Anchorage. *Lecture Notes in Bioengineering*, **2018**, 259-263 | 0.8 | 1 |
| 27 | A New Growth Model for Aortic Valve Calcification. *Journal of Biomechanical Engineering*, **2018**, 140, | 2.1 | 6 |

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| 26 | Comparative Fluid-Structure Interaction Analysis of Polymeric Transcatheter and Surgical Aortic ValvesaHemodynamics and Structural Mechanics. *Journal of Biomechanical Engineering*, **2018**, | 2.1 | 18 |
| 25 | Fluid-Structure Interaction Models of Bicuspid Aortic Valves: The Effects of Nonfused Cusp Angles. *Journal of Biomechanical Engineering*, **2018**, 140, | 2.1 | 18 |
| 24 | Design Effect of Metallic (Durable) and Polymeric (Resorbable) Stents on Blood Flow and Platelet Activation. *Artificial Organs*, **2018**, 42, 1148-1156 | 2.6 | 2 |
| 23 | Reducing the effects of compressibility in DPD-based blood flow simulations through severe stenotic microchannels. *Journal of Computational Physics*, **2017**, 335, 812-827 | 4.1 | 13 |
| 22 | The effect of pathologic venous valve on neighboring valves: fluid-structure interactions modeling. *Medical and Biological Engineering and Computing*, **2017**, 55, 991-999 | 3.1 | 11 |
| 21 | Fluid-structure interaction modeling of calcific aortic valve disease using patient-specific three-dimensional calcification scans. *Medical and Biological Engineering and Computing*, **2016**, 54, 1683-1694 | 3.1 | 24 |
| 20 | Lagrangian methods for blood damage estimation in cardiovascular devices--How numerical implementation affects the results. *Expert Review of Medical Devices*, **2016**, 13, 113-22 | 3.5 | 22 |
| 19 | Imaging analysis of collagen fiber networks in cusps of porcine aortic valves: effect of their local distribution and alignment on valve functionality. *Computer Methods in Biomechanics and Biomedical Engineering*, **2016**, 19, 1002-8 | 2.1 | 10 |
| 18 | Effect of Balloon-Expandable Transcatheter Aortic Valve Replacement Positioning: A Patient-Specific Numerical Model. *Artificial Organs*, **2016**, 40, E292-E304 | 2.6 | 27 |
| 17 | Hemodynamic and thrombogenic analysis of a trileaflet polymeric valve using a fluid-structure interaction approach. *Journal of Biomechanics*, **2015**, 48, 3641-9 | 2.9 | 41 |
| 16 | Numerical Methods for Fluid–Structure Interaction Models of Aortic Valves. *Archives of Computational Methods in Engineering*, **2015**, 22, 595-620 | 7.8 | 48 |
| 15 | Simulation of Transcatheter Aortic Valve Replacement in patient-specific aortic roots: Effect of crimping and positioning on device performance. *Annual International Conference of the IEEE Engineering in Medicine and Biology Society IEEE Engineering in Medicine and Biology Society Annual International Conference*, **2015**, 2015, 282-5 | 0.9 | 8 |
| 14 | Progressive aortic valve calcification: three-dimensional visualization and biomechanical analysis. *Journal of Biomechanics*, **2015**, 48, 489-97 | 2.9 | 28 |
| 13 | Authorsareply regarding "A general three dimensional parametric geometry of the native aortic valve and root for biomechanical modeling". *Journal of Biomechanics*, **2014**, 47, 1239 | 2.9 | 1 |
| 12 | Numerical model of full-cardiac cycle hemodynamics in a total artificial heart and the effect of its size on platelet activation. *Journal of Cardiovascular Translational Research*, **2014**, 7, 788-96 | 3.3 | 14 |
| 11 | Numerical model of total artificial heart hemodynamics and the effect of its size on stress accumulation. *Annual International Conference of the IEEE Engineering in Medicine and Biology Society IEEE Engineering in Medicine and Biology Society Annual International Conference*, **2014**, 2014, 5651-4 | 0.9 | 0 |
| 10 | Cusp height in aortic valves. *Journal of Thoracic and Cardiovascular Surgery*, **2013**, 146, 269-74 | 1.5 | 118 |
| 9 | Fully coupled fluid-structure interaction model of congenital bicuspid aortic valves: effect of asymmetry on hemodynamics. *Medical and Biological Engineering and Computing*, **2013**, 51, 839-48 | 3.1 | 28 |

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| 8 | Numerical model of the aortic root and valve: optimization of graft size and sinotubular junction to annulus ratio. *Journal of Thoracic and Cardiovascular Surgery*, **2013**, 146, 1227-31 | 1.5 | 28 |
| 7 | Fluid-structure interaction model of aortic valve with porcine-specific collagen fiber alignment in the cusps. *Journal of Biomechanical Engineering*, **2013**, 135, 101001-6 | 2.1 | 33 |
| 6 | Aortic root numeric model: correlation between intraoperative effective height and diastolic coaptation. *Journal of Thoracic and Cardiovascular Surgery*, **2013**, 145, 303-4 | 1.5 | 17 |
| 5 | Aortic root numeric model: annulus diameter prediction of effective height and coaptation in post-aortic valve repair. *Journal of Thoracic and Cardiovascular Surgery*, **2013**, 145, 406-411.e1 | 1.5 | 61 |
| 4 | A fluid-structure interaction model of the aortic valve with coaptation and compliant aortic root. *Medical and Biological Engineering and Computing*, **2012**, 50, 173-82 | 3.1 | 66 |
| 3 | A general three-dimensional parametric geometry of the native aortic valve and root for biomechanical modeling. *Journal of Biomechanics*, **2012**, 45, 2392-7 | 2.9 | 53 |
| 2 | Effect of asymmetry on hemodynamics in fluid-structure interaction model of congenital bicuspid aortic valves. *Annual International Conference of the IEEE Engineering in Medicine and Biology Society IEEE Engineering in Medicine and Biology Society Annual International Conference*, **2012**, 2012, 637-40 | 0.9 | 2 |
| 1 | Numerical Simulation of the Airflow Across Trees in a Windbreak. *Boundary-Layer Meteorology*, **2010**, 135, 89-107 | 3.4 | 38 |