

Gaetano Burriesci

List of Publications by Year in descending order

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Version: 2024-02-01

63
papers

2,121
citations

201674

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docs citations

65
times ranked

2255
citing authors

#	ARTICLE	IF	CITATIONS
1	Fluid-structure interaction approach with smoothed particle hydrodynamics and particle-spring systems. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2022, 392, 114728.	6.6	10
2	Standard mechanical testing is inadequate for the mechanical characterisation of shape-memory alloys: Source of errors and a new corrective approach. <i>Materials and Design</i> , 2022, 216, 110538.	7.0	3
3	Effect of the Alterations in Contractility and Morphology Produced by Atrial Fibrillation on the Thrombosis Potential of the Left Atrial Appendage. <i>Frontiers in Bioengineering and Biotechnology</i> , 2021, 9, 586041.	4.1	24
4	In silico study of the ageing effect upon aortic valves. <i>Journal of Fluids and Structures</i> , 2021, 103, 103258.	3.4	6
5	Experimental Validation of Enhanced Magnetic Resonance Imaging (EMRI) Using Particle Image Velocimetry (PIV). <i>Annals of Biomedical Engineering</i> , 2021, , 1.	2.5	2
6	Biological Equivalence of GGTA-1 Glycosyltransferase Knockout and Standard Porcine Pericardial Tissue Using 90-Day Mitral Valve Implantation in Adolescent Sheep. <i>Cardiovascular Engineering and Technology</i> , 2021, , 1.	1.6	2
7	Investigation of the Thermomechanical Response of Cyclically Loaded NiTi Alloys by Means of Temperature Frequency Domain Analyses. <i>Materials</i> , 2021, 14, 7866.	2.9	2
8	Low-Cost Fabrication of Polyvinyl Alcohol-Based Personalized Vascular Phantoms for In Vitro Hemodynamic Studies: Three Applications. <i>Journal of Engineering and Science in Medical Diagnostics and Therapy</i> , 2020, 3, .	0.5	7
9	Polymeric Heart Valves. , 2020, , 1-10.		0
10	In Vitro and Ex Vivo Hemodynamic Testing of an Innovative Occluder for Paravalvular Leak After Transcatheter Aortic Valve Implantation. <i>Journal of Cardiovascular Translational Research</i> , 2019, 12, 551-559.	2.4	5
11	The neochord mitral valve repair procedure: Numerical simulation of different neochords tensioning protocols. <i>Medical Engineering and Physics</i> , 2019, 74, 121-128.	1.7	7
12	Sizing the aortic annulus with a robotised, commercially available soft balloon catheter: in vitro study on idealised phantoms. , 2019, , .		8
13	Incidence, predictors and cerebrovascular consequences of leaflet thrombosis after transcatheter aortic valve implantation: a systematic review and meta-analysis. <i>European Journal of Cardio-thoracic Surgery</i> , 2019, 56, 488-494.	1.4	42
14	A Durable Porcine Pericardial Surgical Bioprosthetic Heart Valve: a Proof of Concept. <i>Journal of Cardiovascular Translational Research</i> , 2019, 12, 331-337.	2.4	21
15	Does transcatheter aortic valve alignment matter?. <i>Open Heart</i> , 2019, 6, e001132.	2.3	12
16	In vitro assessment of pacing as therapy for aortic regurgitation. <i>Open Heart</i> , 2019, 6, e000976.	2.3	6
17	3D printing assisted finite element analysis for optimising the manufacturing parameters of a lumbar fusion cage. <i>Materials and Design</i> , 2019, 163, 107540.	7.0	40
18	Patient-Specific Aortic Phantom With Tunable Compliance. <i>Journal of Engineering and Science in Medical Diagnostics and Therapy</i> , 2019, 2, .	0.5	9

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19	Enhancing Magnetic Resonance Imaging With Computational Fluid Dynamics. Journal of Engineering and Science in Medical Diagnostics and Therapy, 2019, 2, .	0.5	6
20	Haemodynamic Issues with Transcatheter Aortic Valve Implantation. , 2019, , 47-59.		0
21	Anatomically realistic ultrasound phantoms using gel wax with 3D printed moulds. Physics in Medicine and Biology, 2018, 63, 015033.	3.0	52
22	Validation and Extension of a Fluid-Structure Interaction Model of the Healthy Aortic Valve. Cardiovascular Engineering and Technology, 2018, 9, 739-751.	1.6	21
23	Computational Fluid Dynamic Analysis of the Left Atrial Appendage to Predict Thrombosis Risk. Frontiers in Cardiovascular Medicine, 2018, 5, 34.	2.4	112
24	In Vitro Hydrodynamic Assessment of a New Transcatheter Heart Valve Concept (the TRISKELE). Journal of Cardiovascular Translational Research, 2017, 10, 104-115.	2.4	28
25	Design, Analysis and Testing of a Novel Mitral Valve for Transcatheter Implantation. Annals of Biomedical Engineering, 2017, 45, 1852-1864.	2.5	14
26	Pledget-Armed Sutures Affect the Haemodynamic Performance of Biologic Aortic Valve Substitutes: A Preliminary Experimental and Computational Study. Cardiovascular Engineering and Technology, 2017, 8, 17-29.	1.6	30
27	Novel heart valve prosthesis with self-endothelialization potential made of modified polyhedral oligomeric silsesquioxane-nanocomposite material. Biointerphases, 2016, 11, 029801.	1.6	16
28	Numerical model of a valvuloplasty balloon: in vitro validation in a rapid-prototyped phantom. BioMedical Engineering OnLine, 2016, 15, 37.	2.7	6
29	Possible Subclinical Leaflet Thrombosis in Bioprosthetic Aortic Valves. New England Journal of Medicine, 2016, 374, 1590-1592.	27.0	40
30	Physiological vortices in the sinuses of Valsalva: An in vitro approach for bio-prosthetic valves. Journal of Biomechanics, 2016, 49, 2635-2643.	2.1	63
31	Transcatheter aortic valves produce unphysiological flows which may contribute to thromboembolic events: An in-vitro study. Journal of Biomechanics, 2016, 49, 4080-4089.	2.1	56
32	Physical equivalency of wild type and galactose \pm 1,3 galactose free porcine pericardium; a new source material for bioprosthetic heart valves. Acta Biomaterialia, 2016, 41, 204-209.	8.3	28
33	Can finite element models of ballooning procedures yield mechanical response of the cardiovascular site to overexpansion?. Journal of Biomechanics, 2016, 49, 2778-2784.	2.1	9
34	Impact of different aortic valve calcification patterns on the outcome of transcatheter aortic valve implantation: A finite element study. Journal of Biomechanics, 2016, 49, 2520-2530.	2.1	69
35	In vitro hemodynamic testing of Amplatzer plugs for paravalvular leak occlusion after transcatheter aortic valve implantation. International Journal of Cardiology, 2016, 203, 1093-1099.	1.7	13
36	A new transcatheter heart valve concept (the TRISKELE): feasibility in an acute preclinical model. EuroIntervention, 2016, 12, 901-908.	3.2	13

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37	A Technical Review of Minimally Invasive Mitral Valve Replacements. <i>Cardiovascular Engineering and Technology</i> , 2015, 6, 174-184.	1.6	28
38	Finite Element Analysis of Transcatheter Aortic Valve Implantation in the Presence of Aortic Leaflet Calcifications. <i>Lecture Notes in Applied and Computational Mechanics</i> , 2015, , 101-115.	2.2	3
39	Uniaxial and buckling mechanical response of auxetic cellular tubes. <i>Smart Materials and Structures</i> , 2013, 22, 084008.	3.5	84
40	Numerical analysis of the radial force produced by the Medtronic-CoreValve and Edwards-SAPIEN after transcatheter aortic valve implantation (TAVI). <i>Medical Engineering and Physics</i> , 2013, 35, 125-130.	1.7	150
41	Polymeric Heart Valves. , 2013, , 1893-1900.		0
42	Hemodynamics in the Valsalva sinuses after transcatheter aortic valve implantation (TAVI). <i>Journal of Heart Valve Disease</i> , 2013, 22, 688-96.	0.5	32
43	A New Generation of Aortic Valve Prosthesis: Design, Manufacture and Hydrodynamic Assessment. , 2012, , .		0
44	STRESS AND STRAIN BASED NUMERICAL SIMULATION OF MITRAL VALVE FIBRE REMODELLING. <i>Journal of Biomechanics</i> , 2012, 45, S147.	2.1	0
45	Manufacturing and hydrodynamic assessment of a novel aortic valve made of a new nanocomposite polymer. <i>Journal of Biomechanics</i> , 2012, 45, 1205-1211.	2.1	85
46	Fluid-Structure Interaction Simulation of the Edge-to-Edge Repair of the Mitral Valve in Functional and Degenerative States. , 2012, , .		0
47	Fluid-structure interaction study of the edge-to-edge repair technique on the mitral valve. <i>Journal of Biomechanics</i> , 2011, 44, 2409-2417.	2.1	35
48	Mitral valve dynamics in structural and fluid-structure interaction models. <i>Medical Engineering and Physics</i> , 2010, 32, 1057-1064.	1.7	90
49	The anti-calcification potential of a silsesquioxane nanocomposite polymer under in vitro conditions: Potential material for synthetic leaflet heart valve. <i>Acta Biomaterialia</i> , 2010, 6, 4249-4260.	8.3	90
50	Design of a novel polymeric heart valve. <i>Journal of Medical Engineering and Technology</i> , 2010, 34, 7-22.	1.4	29
51	Polymeric heart valves: new materials, emerging hopes. <i>Trends in Biotechnology</i> , 2009, 27, 359-367.	9.3	194
52	Current developments and future prospects for heart valve replacement therapy. <i>Journal of Biomedical Materials Research - Part B Applied Biomaterials</i> , 2009, 88B, 290-303.	3.4	86
53	Manufacture of small calibre quadruple lamina vascular bypass grafts using a novel automated extrusion-phase-inversion method and nanocomposite polymer. <i>Journal of Biomechanics</i> , 2009, 42, 722-730.	2.1	46
54	A novel nanocomposite polymer for development of synthetic heart valve leaflets. <i>Acta Biomaterialia</i> , 2009, 5, 2409-2417.	8.3	148

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55	Adaptation and development of software simulation methodologies for cardiovascular engineering: present and future challenges from an end-user perspective. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2009, 367, 2655-2666.	3.4	5
56	Percutaneous Heart Valve Replacement: An Update. Trends in Cardiovascular Medicine, 2008, 18, 117-125.	4.9	15
57	An approach to the simulation of fluid-structure interaction in the aortic valve. Journal of Biomechanics, 2006, 39, 158-169.	2.1	113
58	Computer aided photoelasticity by an optimum phase stepping method. Experimental Mechanics, 2002, 42, 132-139.	2.0	49
59	Influence of anisotropy on the mechanical behaviour of bioprosthetic heart valves. Journal of Medical Engineering and Technology, 1999, 23, 203-215.	1.4	41
60	Heart Valves, Polymeric: Biocompatibility. , 0, , 3713-3721.		3
61	DATA MINING USING A SOFT ROBOTIC BALLOON CATHETER: SIZING IDEALISED AORTIC ANNULAR PHANTOMS. , 0, , .		0
62	Standard Mechanical Testing is Inadequate for the Mechanical Characterisation of Shape-Memory Alloys: Source of Errors and a New Corrective Approach. SSRN Electronic Journal, 0, , .	0.4	0
63	The Role of Patient-Specific Morphological Features of the Left Atrial Appendage on the Thromboembolic Risk Under Atrial Fibrillation. Frontiers in Cardiovascular Medicine, 0, 9, .	2.4	7