

# Vasileios Vavourakis

## List of Publications by Year in descending order

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42  
papers

594  
citations

567281

15  
h-index

713466

21  
g-index

46  
all docs

46  
docs citations

46  
times ranked

703  
citing authors

#	ARTICLE	IF	CITATIONS
1	A review of biomechanically informed breast image registration. <i>Physics in Medicine and Biology</i> , 2016, 61, R1-R31.	3.0	55
2	A Validated Multiscale In-Silico Model for Mechano-sensitive Tumour Angiogenesis and Growth. <i>PLoS Computational Biology</i> , 2017, 13, e1005259.	3.2	45
3	Multiscale Mechano-Biological Finite Element Modelling of Oncoplastic Breast Surgery – Numerical Study towards Surgical Planning and Cosmetic Outcome Prediction. <i>PLoS ONE</i> , 2016, 11, e0159766.	2.5	37
4	Breast cancer surgery with augmented reality. <i>Breast</i> , 2021, 56, 14-17.	2.2	34
5	Symmetric Biomechanically Guided Prone-to-Supine Breast Image Registration. <i>Annals of Biomedical Engineering</i> , 2016, 44, 154-173.	2.5	24
6	BioDynaMo: a modular platform for high-performance agent-based simulation. <i>Bioinformatics</i> , 2022, 38, 453-460.	4.1	23
7	From tumour perfusion to drug delivery and clinical translation of in silico cancer models. <i>Methods</i> , 2021, 185, 82-93.	3.8	22
8	Assessment of remeshing and remapping strategies for large deformation elastoplastic Finite Element analysis. <i>Computers and Structures</i> , 2013, 114-115, 133-146.	4.4	21
9	An Inverse Finite Element u/p-Formulation to Predict the Unloaded State of In Vivo Biological Soft Tissues. <i>Annals of Biomedical Engineering</i> , 2016, 44, 187-201.	2.5	21
10	A quantitative in silico platform for simulating cytotoxic and nanoparticle drug delivery to solid tumours. <i>Interface Focus</i> , 2019, 9, 20180063.	3.0	21
11	An in silico hybrid continuum-/agent-based procedure to modelling cancer development: Interrogating the interplay amongst glioma invasion, vascularity and necrosis. <i>Methods</i> , 2021, 185, 94-104.	3.8	19
12	Coupled fluid-structure interaction hemodynamics in a zero-pressure state corrected arterial geometry. <i>Journal of Biomechanics</i> , 2011, 44, 2453-2460.	2.1	18
13	A robust finite element approach for large deformation elastoplastic plane-strain problems. <i>Finite Elements in Analysis and Design</i> , 2013, 77, 1-15.	3.2	18
14	In-silico dynamic analysis of cytotoxic drug administration to solid tumours: Effect of binding affinity and vessel permeability. <i>PLoS Computational Biology</i> , 2018, 14, e1006460.	3.2	18
15	Hydrodynamic analysis of octopus-like robotic arms. , 2012, , .		17
16	Multiscale modelling of solid tumour growth: the effect of collagen micromechanics. <i>Biomechanics and Modeling in Mechanobiology</i> , 2016, 15, 1079-1090.	2.8	16
17	Numerical modeling of non-Newtonian biomagnetic fluid flow. <i>Computers and Fluids</i> , 2016, 126, 170-180.	2.5	14
18	A nonlinear dynamic finite element approach for simulating muscular hydrostats. <i>Computer Methods in Biomechanics and Biomedical Engineering</i> , 2014, 17, 917-931.	1.6	12

#	ARTICLE	IF	CITATIONS
19	The influence of intraluminal thrombus on noninvasive abdominal aortic aneurysm wall distensibility measurement. <i>Medical and Biological Engineering and Computing</i> , 2015, 53, 299-308.	2.8	11
20	A MLPG(LBIE) numerical method for solving 2D incompressible and nearly incompressible elastostatic problems. <i>Communications in Numerical Methods in Engineering</i> , 2006, 24, 281-296.	1.3	10
21	Generation of primitive behaviors for non-linear hyperelastic octopus-inspired robotic arm. , 2012, , .		10
22	A numerical investigation of flow around octopus-like arms: near-wake vortex patterns and force development. <i>Computer Methods in Biomechanics and Biomedical Engineering</i> , 2015, 18, 1321-1339.	1.6	10
23	Multiscale biphasic modelling of peritumoural collagen microstructure: The effect of tumour growth on permeability and fluid flow. <i>PLoS ONE</i> , 2017, 12, e0184511.	2.5	10
24	Radiation-induced fibrosis in breast cancer: A protocol for an observational cross-sectional pilot study for personalised risk estimation and objective assessment. <i>International Journal of Surgery Protocols</i> , 2019, 14, 9-13.	1.1	10
25	Biomechanical modelling of spinal tumour anisotropic growth. <i>Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences</i> , 2020, 476, 20190364.	2.1	9
26	Engineered magnetoactive collagen hydrogels with tunable and predictable mechanical response. <i>Materials Science and Engineering C</i> , 2020, 114, 111089.	7.3	9
27	Breast deformation modelling: comparison of methods to obtain a patient specific unloaded configuration. <i>Proceedings of SPIE</i> , 2014, , .	0.8	8
28	Investigating the reference domain influence in personalised models of cardiac mechanics. <i>Biomechanics and Modeling in Mechanobiology</i> , 2021, 20, 1579-1597.	2.8	8
29	Interrogating and Quantifying In Vitro Cancer Drug Pharmacodynamics via Agent-Based and Bayesian Monte Carlo Modelling. <i>Pharmaceutics</i> , 2022, 14, 749.	4.5	8
30	Decompressive craniectomy of post-traumatic brain injury: an in silico modelling approach for intracranial hypertension management. <i>Scientific Reports</i> , 2020, 10, 18673.	3.3	7
31	Numerical determination of modal dispersion and AE signal characterization in waveguides through LBIE/BEM and time-frequency analysis. <i>Computational Mechanics</i> , 2009, 43, 431-441.	4.0	6
32	Interrogating an <i>in silico</i> model to determine helium plasma jet and chemotherapy efficacy against B16F10 melanoma cells. <i>Applied Physics Letters</i> , 2022, 120, .	3.3	6
33	A meshless local boundary integral equation method for two-dimensional steady elliptic problems. <i>Computational Mechanics</i> , 2009, 44, 777-790.	4.0	5
34	Surface driven biomechanical breast image registration. , 2016, , .		5
35	Multimodal Structural Analysis of the Human Aorta: From Valve to Bifurcation. <i>European Journal of Vascular and Endovascular Surgery</i> , 2022, 63, 721-730.	1.5	5
36	Convection-Enhanced Delivery In Silico Study for Brain Cancer Treatment. <i>Frontiers in Bioengineering and Biotechnology</i> , 2022, 10, .	4.1	5

#	ARTICLE	IF	CITATIONS
37	Tapering analysis of airways with bronchiectasis. , 2018, , .		4
38	Should the Proximal Part of a Bifurcated Aortic Graft be Kept as Short as Possible? A Computational Study Elucidates on Aortic Graft Hemodynamics for Various Main Body Lengths. Annals of Vascular Surgery, 2022, 84, 344-353.	0.9	4
39	A NUMERICAL STUDY ON THE PROPAGATION OF TRANSIENT ELASTIC WAVES IN AXISYMMETRIC VESSELS. , 2006, , .		1
40	Breast Conserving Surgery Outcome Prediction: A Patient-Specific, Integrated Multi-modal Imaging and Mechano-Biological Modelling Framework. Lecture Notes in Computer Science, 2016, , 274-281.	1.3	1
41	Abdominal Aortic Aneurysm Rupture Risk Assessment Exploiting Dynamic (4D) CT Based Wall Motion Data and Finite Element Analysis. , 2013, , .		0
42	WAVE PROPAGATION IN PLATES WITH MICROSTRUCTURE. , 2004, , .		0