## Yiannis A Ventikos

List of Publications by Year in descending order

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| #  | Article   | IF   | CITATIONS |
|----|---|------|-----------|
| 1  | Simulations of flow through open cell metal foams using an idealized periodic cell structure.<br>International Journal of Heat and Fluid Flow, 2003, 24, 825-834.   | 1.1  | 269       |
| 2  | Computational study of high-speed liquid droplet impact. Journal of Applied Physics, 2002, 92, 2821-2828.   | 1.1  | 169       |
| 3  | Morphomechanical Innovation Drives Explosive Seed Dispersal. Cell, 2016, 166, 222-233.  | 13.5 | 128       |
| 4  | Modifiable Lifestyle Factors in Dementia: A Systematic Review of Longitudinal Observational Cohort<br>Studies. Journal of Alzheimer's Disease, 2014, 42, 119-135.   | 1.2  | 125       |
| 5  | Haemodynamics and wall remodelling of a growing cerebral aneurysm: A computational model.<br>Journal of Biomechanics, 2007, 40, 412-426.  | 0.9  | 117       |
| 6  | Interaction of a strong shockwave with a gas bubble in a liquid medium: a numerical study. Journal of<br>Fluid Mechanics, 2012, 701, 59-97.   | 1.4  | 110       |
| 7  | Haemodynamic simulation of aneurysm coiling in an anatomically accurate computational fluid<br>dynamics model: technical note. Neuroradiology, 2008, 50, 341-347.   | 1.1  | 101       |
| 8  | Cerebral water transport using multiple-network poroelastic theory: application to normal pressure<br>hydrocephalus. Journal of Fluid Mechanics, 2011, 667, 188-215.  | 1.4  | 99        |
| 9  | Computational investigation of subject-specific cerebrospinal fluid flow in the third ventricle and aqueduct of Sylvius. Journal of Biomechanics, 2007, 40, 1235-1245.  | 0.9  | 92        |
| 10 | The three-dimensional structure of confined swirling flows with vortex breakdown. Journal of Fluid<br>Mechanics, 2001, 426, 155-175.  | 1.4  | 87        |
| 11 | Chaotic advection in three-dimensional stationary vortex-breakdown bubbles: Åjil'nikov's chaos and<br>the devil's staircase. Journal of Fluid Mechanics, 2001, 444, 257-297.                                      | 1.4  | 77        |
| 12 | The Haemodynamics of Endovascular Aneurysm Treatment: A Computational Modelling Approach for<br>Estimating the Influence of Multiple Coil Deployment. IEEE Transactions on Medical Imaging, 2008, 27,<br>814-824. | 5.4  | 77        |
| 13 | Impulsively actuated jets from thin liquid films for high-resolution printing applications. Journal of<br>Fluid Mechanics, 2012, 709, 341-370.  | 1.4  | 77        |
| 14 | Organized modes and the three-dimensional transition to turbulence in the incompressible flow around a NACA0012 wing. Journal of Fluid Mechanics, 2003, 496, 63-72.   | 1.4  | 76        |
| 15 | A numerical method for the simulation of steady and unsteady cavitating flows. Computers and Fluids, 2000, 29, 63-88.   | 1.3  | 74        |
| 16 | Computational simulation of intracoronary flow based on real coronary geometryâ~†. European Journal<br>of Cardio-thoracic Surgery, 2004, 26, 248-256.   | 0.6  | 73        |
| 17 | Modelling the mechanical response of elastin for arterial tissue. Journal of Biomechanics, 2009, 42, 1320-1325.   | 0.9  | 70        |
| 18 | Coupling the Hemodynamic Environment to the Evolution of Cerebral Aneurysms: Computational Framework and Numerical Examples. Journal of Biomechanical Engineering, 2009, 131, 101003.                             | 0.6  | 67        |

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|----|--|-----|-----------|
| 19 | A longitudinal study of Type-B aortic dissection and endovascular repair scenarios: Computational analyses. Medical Engineering and Physics, 2013, 35, 1321-1330.  | 0.8 | 66        |
| 20 | Shock wave formation in droplet impact on a rigid surface: lateral liquid motion and multiple wave structure in the contact line region. Journal of Fluid Mechanics, 2003, 490, 1-14.  | 1.4 | 57        |
| 21 | Coupling Poroelasticity and CFD for Cerebrospinal Fluid Hydrodynamics. IEEE Transactions on<br>Biomedical Engineering, 2009, 56, 1644-1651.  | 2.5 | 56        |
| 22 | Computational Modeling of the Mechanical Behavior of the Cerebrospinal Fluid System. Journal of<br>Biomechanical Engineering, 2005, 127, 264-269.  | 0.6 | 55        |
| 23 | Modelling the growth and stabilization of cerebral aneurysms. Mathematical Medicine and Biology, 2009, 26, 133-164.  | 0.8 | 54        |
| 24 | Robotic swarm concept for efficient oil spill confrontation. Journal of Hazardous Materials, 2008, 154, 880-887.   | 6.5 | 52        |
| 25 | CFD and PTV Steady Flow Investigation in an Anatomically Accurate Abdominal Aortic Aneurysm.<br>Journal of Biomechanical Engineering, 2009, 131, 011008.   | 0.6 | 52        |
| 26 | A patient-specific study of type-B aortic dissection: evaluation of true-false lumen blood exchange.<br>BioMedical Engineering OnLine, 2013, 12, 65.   | 1.3 | 52        |
| 27 | Transitional flow in aneurysms and the computation of haemodynamic parameters. Journal of the<br>Royal Society Interface, 2015, 12, 20141394.  | 1.5 | 52        |
| 28 | Modelling evolution and the evolving mechanical environment of saccular cerebral aneurysms.<br>Biomechanics and Modeling in Mechanobiology, 2011, 10, 109-132.   | 1.4 | 51        |
| 29 | Numerical and Experimental Investigation of an Annular Jet Flow With Large Blockage. Journal of<br>Fluids Engineering, Transactions of the ASME, 2004, 126, 375-384.   | 0.8 | 49        |
| 30 | Subject-specific multi-poroelastic model for exploring the risk factors associated with the early stages of Alzheimer's disease. Interface Focus, 2018, 8, 20170019.   | 1.5 | 49        |
| 31 | Computational modelling of the interaction of shock waves with multiple gas-filled bubbles in a<br>liquid. Physics of Fluids, 2015, 27, .  | 1.6 | 43        |
| 32 | Investigating cerebral oedema using poroelasticity. Medical Engineering and Physics, 2016, 38, 48-57.  | 0.8 | 43        |
| 33 | Transition from bubble-type vortex breakdown to columnar vortex in a confined swirling flow.<br>International Journal of Heat and Fluid Flow, 1998, 19, 446-458.   | 1.1 | 40        |
| 34 | Investigating the Influence of Haemodynamic Stimuli on Intracranial Aneurysm Inception. Annals of<br>Biomedical Engineering, 2013, 41, 1492-1504.  | 1.3 | 39        |
| 35 | Thrombosis in Cerebral Aneurysms and the Computational Modeling Thereof: A Review. Frontiers in Physiology, 2018, 9, 306.  | 1.3 | 39        |
| 36 | Finite element evaluations of the mechanical properties of polycaprolactone/hydroxyapatite scaffolds<br>by direct ink writing: Effects of pore geometry. Journal of the Mechanical Behavior of Biomedical<br>Materials, 2020, 104, 103665. | 1.5 | 39        |

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|----|--|-----|-----------|
| 37 | Personalizing flowâ€diverter intervention for cerebral aneurysms: from computational hemodynamics<br>to biochemical modeling. International Journal for Numerical Methods in Biomedical Engineering,<br>2014, 30, 1387-1407. | 1.0 | 36        |
| 38 | Flow Through a Curved Duct Using Nonlinear Two-Equation Turbulence Models. AIAA Journal, 1998, 36, 1256-1262.  | 1.5 | 34        |
| 39 | On the Genealogy of Tissue Engineering and Regenerative Medicine. Tissue Engineering - Part B:<br>Reviews, 2015, 21, 203-217.  | 2.5 | 34        |
| 40 | Three-Dimensional Modeling of Mechanical Forces in the Extracellular Matrix during Epithelial Lumen<br>Formation. Biophysical Journal, 2006, 90, 4380-4391.  | 0.2 | 32        |
| 41 | Investigating biocomplexity through the agent-based paradigm. Briefings in Bioinformatics, 2015, 16, 137-152.  | 3.2 | 32        |
| 42 | Pulsatile Blood Flow in Anatomically Accurate Vessels with Multiple Aneurysms: A Medical<br>Intervention Planning Application of Computational Haemodynamics. Flow, Turbulence and<br>Combustion, 2003, 71, 333-346.         | 1.4 | 31        |
| 43 | Wave structure in the contact line region during high speed droplet impact on a surface: Solution of the Riemann problem for the stiffened gas equation of state. Journal of Applied Physics, 2003, 93, 3090-3097.           | 1.1 | 31        |
| 44 | Computational modelling of clot development in patientâ€specific cerebral aneurysm cases. Journal of<br>Thrombosis and Haemostasis, 2016, 14, 262-272.   | 1.9 | 30        |
| 45 | A fully dynamic multi-compartmental poroelastic system: Application to aqueductal stenosis. Journal of Biomechanics, 2016, 49, 2306-2312.  | 0.9 | 30        |
| 46 | Multi-stage learning for segmentation of aortic dissections using a prior aortic anatomy simplification. Medical Image Analysis, 2021, 69, 101931.   | 7.0 | 28        |
| 47 | On the influence of variation in haemodynamic conditions on the generation and growth of cerebral aneurysms and atherogenesis: A computational model. Journal of Biomechanics, 2007, 40, 3626-3640.                          | 0.9 | 26        |
| 48 | Rest versus Exercise Hemodynamics for Middle Cerebral Artery Aneurysms: A Computational Study.<br>American Journal of Neuroradiology, 2010, 31, 317-323.   | 1.2 | 26        |
| 49 | Modelling volumetric growth in a thick walled fibre reinforced artery. Journal of the Mechanics and Physics of Solids, 2014, 73, 134-150.  | 2.3 | 26        |
| 50 | Comparison and calibration of a real-time virtual stenting algorithm using Finite Element Analysis and<br>Genetic Algorithms. Computer Methods in Applied Mechanics and Engineering, 2015, 293, 462-480.                     | 3.4 | 26        |
| 51 | A multiple-network poroelastic model for biological systems and application to subject-specific modelling of cerebral fluid transport. International Journal of Engineering Science, 2020, 147, 103204.                      | 2.7 | 26        |
| 52 | Ciliary behaviour and mechano-transduction in the embryonic node: Computational testing of hypotheses. Medical Engineering and Physics, 2011, 33, 857-867.   | 0.8 | 25        |
| 53 | A Multi-Paradigm Modeling Framework to Simulate Dynamic Reciprocity in a Bioreactor. PLoS ONE, 2013, 8, e59671.  | 1.1 | 25        |
| 54 | Disturbed flow induces a sustained, stochastic NF-κB activation which may support intracranial aneurysm growth in vivo. Scientific Reports, 2019, 9, 4738.   | 1.6 | 25        |

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|----|--|-----|-----------|
| 55 | Exploring the Efficacy of Endoscopic Ventriculostomy for Hydrocephalus Treatment via a<br>Multicompartmental Poroelastic Model of CSF Transport: A Computational Perspective. PLoS ONE,<br>2013, 8, e84577.                              | 1.1 | 25        |
| 56 | A Computational Model Combining Vascular Biology and Haemodynamics for Thrombosis Prediction in Anatomically Accurate Cerebral Aneurysms. Food and Bioproducts Processing, 2005, 83, 118-126.  | 1.8 | 24        |
| 57 | Which Spring is the Best? Comparison of Methods for Virtual Stenting. IEEE Transactions on<br>Biomedical Engineering, 2014, 61, 1998-2010.   | 2.5 | 24        |
| 58 | Cerebral oxygenation and optimal vascular brain organization. Journal of the Royal Society Interface, 2015, 12, 20150245.  | 1.5 | 24        |
| 59 | Fluid–structure interaction for highly complex, statistically defined, biological media:<br>Homogenisation and a 3D multi-compartmental poroelastic model for brain biomechanics. Journal of<br>Fluids and Structures, 2019, 91, 102641. | 1.5 | 24        |
| 60 | Large-scale molecular dynamics simulation of coupled dynamics of flow and glycocalyx: towards<br>understanding atomic events on an endothelial cell surface. Journal of the Royal Society Interface,<br>2017, 14, 20170780.              | 1.5 | 22        |
| 61 | Principal mode of Syndecanâ€4 mechanotransduction for the endothelial glycocalyx is a scissorâ€like<br>dimer motion. Acta Physiologica, 2020, 228, e13376.   | 1.8 | 22        |
| 62 | The active and passive ciliary motion in the embryo node: A computational fluid dynamics model.<br>Journal of Biomechanics, 2009, 42, 210-216.   | 0.9 | 20        |
| 63 | Modelling evolution of saccular cerebral aneurysms. Journal of Strain Analysis for Engineering<br>Design, 2009, 44, 375-389.   | 1.0 | 19        |
| 64 | Large-scale molecular dynamics simulation of flow under complex structure of endothelial glycocalyx. Computers and Fluids, 2018, 173, 140-146.   | 1.3 | 19        |
| 65 | Residence times and basins of attraction for a realistic right internal carotid artery with two aneurysms. Biorheology, 2002, 39, 387-93.  | 1.2 | 19        |
| 66 | Oscillatory behavior of nanodroplets. Physical Review E, 2004, 70, 011505.   | 0.8 | 18        |
| 67 | Computational modelling for cerebral aneurysms: risk evaluation and interventional planning. British<br>Journal of Radiology, 2009, 82, S62-S71.   | 1.0 | 18        |
| 68 | General Computational Methodology for Modeling Electrohydrodynamic Flows: Prediction and Optimization Capability for the Generation of Bubbles and Fibers. Langmuir, 2019, 35, 10203-10212.  | 1.6 | 18        |
| 69 | First stages of the transition to turbulence and control in the incompressible detached flow around a NACA0012 wing. International Journal of Heat and Fluid Flow, 2006, 27, 878-886.  | 1.1 | 17        |
| 70 | Modelling of experimentally created partial-thickness human skin burns and subsequent therapeutic cooling: A new measure for cooling effectiveness. Medical Engineering and Physics, 2009, 31, 624-631.                                  | 0.8 | 17        |
| 71 | On the Validation of a Multiple-Network Poroelastic Model Using Arterial Spin Labeling MRI Data.<br>Frontiers in Computational Neuroscience, 2019, 13, 60.   | 1.2 | 17        |
| 72 | A Virtual Comparison of the eCLIPs Device and Conventional Flow-Diverters as Treatment for Cerebral Bifurcation Aneurysms. Cardiovascular Engineering and Technology, 2019, 10, 508-519.   | 0.7 | 17        |

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|----|--|-----|-----------|
| 73 | Dual Pulsating or Steady Slot Jet Cooling of a Constant Heat Flux Surface. Journal of Heat Transfer, 2003, 125, 575-586.   | 1.2 | 16        |
| 74 | The Role of Biofluid Mechanics in the Assessment of Clinical and Pathological Observations. Annals of Biomedical Engineering, 2010, 38, 1216-1224.   | 1.3 | 16        |
| 75 | The importance of the constructal framework in understanding and eventually replicating structure in tissue. Physics of Life Reviews, 2011, 8, 241-242.  | 1.5 | 16        |
| 76 | Computational modelling for the embolization of brain arteriovenous malformations. Medical Engineering and Physics, 2012, 34, 873-881.   | 0.8 | 16        |
| 77 | Synergistic activity of polarised osteoblasts inside condensations cause their differentiation.<br>Scientific Reports, 2015, 5, 11838.   | 1.6 | 16        |
| 78 | Characterizing and Modeling Bone Formation during Mouse Calvarial Development. Physical Review<br>Letters, 2019, 122, 048103.  | 2.9 | 16        |
| 79 | Boundary layer transition over a foil using direct numerical simulation and large eddy simulation.<br>Physics of Fluids, 2019, 31, .   | 1.6 | 16        |
| 80 | The â€~Sphere': A Dedicated Bifurcation Aneurysm Flow-Diverter Device. Cardiovascular Engineering and<br>Technology, 2014, 5, 334-347.   | 0.7 | 15        |
| 81 | Numerical and experimental investigation into the dynamics of a bubble-free-surface system. Physical<br>Review Fluids, 2021, 6, .  | 1.0 | 15        |
| 82 | Modelling the influence of endothelial heterogeneity on the progression of arterial disease:<br>application to abdominal aortic aneurysm evolution. International Journal for Numerical Methods in<br>Biomedical Engineering, 2014, 30, 563-586. | 1.0 | 14        |
| 83 | Oligosaccharide model of the vascular endothelial glycocalyx in physiological flow. Microfluidics and Nanofluidics, 2018, 22, 21.  | 1.0 | 14        |
| 84 | Modelling the Evolution of Cerebral Aneurysms: Biomechanics, Mechanobiology and Multiscale<br>Modelling. Procedia IUTAM, 2014, 10, 396-409.  | 1.2 | 13        |
| 85 | Regimes of Flow over Complex Structures of Endothelial Glycocalyx: A Molecular Dynamics<br>Simulation Study. Scientific Reports, 2018, 8, 5732.  | 1.6 | 13        |
| 86 | A simplified approach for simulations of multidimensional compressible multicomponent flows: The grid-aligned ghost fluid method. Journal of Computational Physics, 2020, 405, 109129.   | 1.9 | 13        |
| 87 | Energy focusing in shock-collapsed bubble arrays. Journal of Fluid Mechanics, 2020, 900, .   | 1.4 | 13        |
| 88 | Reconstruction of Cerebrospinal Fluid Flow in the Third Ventricle Based on MRI Data. Lecture Notes in Computer Science, 2005, 8, 786-793.  | 1.0 | 13        |
| 89 | The effect of imperfections on the emergence of three-dimensionality in stationary vortex breakdown bubbles. Physics of Fluids, 2002, 14, L13-L16.   | 1.6 | 12        |
| 90 | Modelling of the physiological response of the brain to ischaemic stroke. Interface Focus, 2013, 3, 20120079.  | 1.5 | 12        |

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|-----|---|-----|-----------|
| 91  | See-saw rocking: an <i>in vitro</i> model for mechanotransduction research. Journal of the Royal<br>Society Interface, 2014, 11, 20140330.  | 1.5 | 12        |
| 92  | Development of a pneumatically driven active cover lid for multi-well microplates for use in perfusion three-dimensional cell culture. Scientific Reports, 2015, 5, 18352.  | 1.6 | 12        |
| 93  | Dynamic reciprocity revisited. Journal of Theoretical Biology, 2015, 370, 205-208.  | 0.8 | 12        |
| 94  | Novel Preparation of Monodisperse Microbubbles by Integrating Oscillating Electric Fields with Microfluidics. Micromachines, 2018, 9, 497.  | 1.4 | 12        |
| 95  | Marangoni and Variable Viscosity Phenomena in Picoliter Size Solder Droplet Deposition. Journal of<br>Heat Transfer, 2003, 125, 365-376.  | 1.2 | 11        |
| 96  | Towards Treatment Planning for the Embolization of Arteriovenous Malformations of the Brain:<br>Intranidal Hemodynamics Modeling. IEEE Transactions on Biomedical Engineering, 2011, 58, 1994-2001.                                     | 2.5 | 11        |
| 97  | Quantification and significance of fluid shear stress field in biaxial cell stretching device.<br>Biomechanics and Modeling in Mechanobiology, 2011, 10, 559-564.   | 1.4 | 11        |
| 98  | Towards Predicting Patient-Specific Flow-Diverter Treatment Outcomes for Bifurcation Aneurysms:<br>From Implantation Rehearsal to Virtual Angiograms. Annals of Biomedical Engineering, 2016, 44, 99-111.                               | 1.3 | 11        |
| 99  | Exploring neurodegenerative disorders using a novel integrated model of cerebral transport: Initial results. Proceedings of the Institution of Mechanical Engineers, Part H: Journal of Engineering in Medicine, 2020, 234, 1223-1234.  | 1.0 | 11        |
| 100 | Wing-tip vortex dynamics at moderate Reynolds numbers. Physics of Fluids, 2021, 33, 035111.   | 1.6 | 11        |
| 101 | Multicompartmental Poroelasticity as a Platform for the Integrative Modeling of Water Transport in the Brain. , 2013, , 305-316.  |     | 11        |
| 102 | Modeling asymmetric cavity collapse with plasma equations of state. Physical Review E, 2016, 93, 053105.  | 0.8 | 10        |
| 103 | Virtual flow-diverter treatment planning: The effect of device placement on bifurcation aneurysm haemodynamics. Proceedings of the Institution of Mechanical Engineers, Part H: Journal of Engineering in Medicine, 2017, 231, 432-443. | 1.0 | 10        |
| 104 | CFD Modeling of an Ultrasonic Separator for the Removal of Lipid Particles From Pericardial Suction Blood. IEEE Transactions on Biomedical Engineering, 2011, 58, 282-290.  | 2.5 | 9         |
| 105 | Resolving the Issue of Resolution. American Journal of Neuroradiology, 2014, 35, 544-545.   | 1.2 | 9         |
| 106 | Effect of the Mixing Region Geometry and Collector Distance on Microbubble Formation in a<br>Microfluidic Device Coupled with ac–dc Electric Fields. Langmuir, 2019, 35, 10052-10060.   | 1.6 | 9         |
| 107 | Microvascular ion transport through endothelial glycocalyx layer: new mechanism and improved Starling principle. American Journal of Physiology - Heart and Circulatory Physiology, 2019, 317, H104-H113.                               | 1.5 | 9         |
| 108 | A Preliminary Study of Fast Virtual Stent-Graft Deployment: Application to Stanford Type B Aortic Dissection. International Journal of Advanced Robotic Systems, 2013, 10, 154.   | 1.3 | 8         |

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|-----|---|-----|-----------|
| 109 | Characterizing shock waves in hydrogel using high speed imaging and a fiber-optic probe hydrophone.<br>Physics of Fluids, 2017, 29, 057101.   | 1.6 | 8         |
| 110 | Reducing Salt Intake and Exercising Regularly: Implications From Molecular Dynamics Simulations of Endothelial Glycocalyx. Frontiers in Physiology, 2018, 9, 1667.  | 1.3 | 8         |
| 111 | Local remeshing for large amplitude grid deformations. Journal of Computational Physics, 2008, 227, 2781-2793.  | 1.9 | 7         |
| 112 | Multi-scale interaction of particulate flow and the artery wall. Medical Engineering and Physics, 2011, 33, 840-848.  | 0.8 | 7         |
| 113 | A computational analysis of the impact of mass transport and shear on three-dimensional stem cell cultures in perfused micro-bioreactors. Chinese Journal of Chemical Engineering, 2016, 24, 163-174.   | 1.7 | 7         |
| 114 | Modelling the interaction of haemodynamics and the artery wall: Current status and future prospects. Biomedicine and Pharmacotherapy, 2008, 62, 530-535.  | 2.5 | 6         |
| 115 | Response to letter to the editor concerning "A fully dynamic multi-compartmental poroelastic system:<br>Application to aqueductal stenosis― Journal of Biomechanics, 2017, 58, 243-246.   | 0.9 | 6         |
| 116 | A Computational Framework to Predict Calvarial Growth: Optimising Management of Sagittal<br>Craniosynostosis. Frontiers in Bioengineering and Biotechnology, 2022, 10, .  | 2.0 | 6         |
| 117 | Computational Simulation of the Blood Separation Process. Artificial Organs, 2005, 29, 665-674.   | 1.0 | 5         |
| 118 | Risk evaluation and interventional planning for cerebral aneurysms: computational models for<br>growth, coiling and thrombosis. International Journal of Computational Fluid Dynamics, 2009, 23,<br>595-607.  | 0.5 | 5         |
| 119 | Understanding endothelial glycocalyx function under flow shear stress from a molecular perspective. Biorheology, 2019, 56, 89-100.  | 1.2 | 5         |
| 120 | Membrane Deformation of Endothelial Surface Layer Interspersed with Syndecan-4: A Molecular<br>Dynamics Study. Annals of Biomedical Engineering, 2020, 48, 357-366.   | 1.3 | 5         |
| 121 | Molecular dynamics simulation: A new way to understand the functionality of the endothelial glycocalyx. Current Opinion in Structural Biology, 2022, 73, 102330.  | 2.6 | 5         |
| 122 | Modelling Cerebral Aneurysm Evolution. Studies in Mechanobiology, Tissue Engineering and Biomaterials, 2011, , 373-399.   | 0.7 | 4         |
| 123 | An approach to the symbolic representation of brain arteriovenous malformations for management and treatment planning. Neuroradiology, 2014, 56, 195-209.   | 1.1 | 4         |
| 124 | Chemosignalling, mechanotransduction and ciliary behaviour in the embryonic node: Computational<br>evaluation of competing theories. Proceedings of the Institution of Mechanical Engineers, Part H:<br>Journal of Engineering in Medicine, 2014, 228, 465-476. | 1.0 | 4         |
| 125 | A simple ghost fluid method for compressible multicomponent flows with capillary effects. Journal of Computational Physics, 2021, 424, 109861.  | 1.9 | 4         |
| 126 | Using Sensitivity Analysis to Develop a Validated Computational Model of Post-operative Calvarial<br>Growth in Sagittal Craniosynostosis. Frontiers in Cell and Developmental Biology, 2021, 9, 621249.   | 1.8 | 4         |

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|-----|--|-----|-----------|
| 127 | Understanding the Role of Endothelial Glycocalyx in Mechanotransduction via Computational Simulation: A Mini Review. Frontiers in Cell and Developmental Biology, 2021, 9, 732815.                       | 1.8 | 4         |
| 128 | A hybrid computational aeroacoustic model with application to turbulent flows over foil and bluff bodies. Journal of Sound and Vibration, 2022, 526, 116773.   | 2.1 | 4         |
| 129 | Simulation of warm dense matter in intense bubble collapse. Proceedings of Meetings on Acoustics, 2013, , .  | 0.3 | 3         |
| 130 | Sodium ion transport across the endothelial glycocalyx layer under electric field conditions: A molecular dynamics study. Journal of Chemical Physics, 2020, 153, 105102.                                | 1.2 | 3         |
| 131 | Thrombin–Fibrinogen In Vitro Flow Model of Thrombus Growth in Cerebral Aneurysms. TH Open, 2021,<br>05, e155-e162.   | 0.7 | 3         |
| 132 | Highly integrated workflows for exploring cardiovascular conditions: Exemplars of precision medicine in Alzheimer's disease and aortic dissection. Morphologie, 2019, 103, 148-160.                      | 0.5 | 3         |
| 133 | Reproducing the Hemoglobin Saturation Profile, a Marker of the Blood Oxygenation Level Dependent<br>(BOLD) fMRI Effect, at the Microscopic Level. PLoS ONE, 2016, 11, e0149935.                          | 1.1 | 3         |
| 134 | Image-based simulation of brain arteriovenous malformation hemodynamics. , 2008, , .   |     | 2         |
| 135 | Commentary on "Computational Study of Anatomical Risk Factors in Idealized Models of Type B Aortic<br>Dissectionâ€: European Journal of Vascular and Endovascular Surgery, 2016, 52, 746.                | 0.8 | 2         |
| 136 | A CFD Framework for Environmentally-Friendly Hydroturbines. , 1999, , 1.   |     | 1         |
| 137 | Marangoni and Variable Viscosity Phenomena in Picoliter Size Solder Droplet Deposition. , 2002, , 15.  |     | 1         |
| 138 | Biological Fluid Mechanics. , 2011, , 203-216.   |     | 1         |
| 139 | A multiscale perspective on the constructal characteristics of human mobility. Physics of Life<br>Reviews, 2013, 10, 195-196.  | 1.5 | 1         |
| 140 | Experimental characterisation of light emission during shock-driven cavity collapse. Proceedings of Meetings on Acoustics, 2013, , .   | 0.3 | 1         |
| 141 | Computational modeling of clot development in patientâ€ <b>s</b> pecific cerebral aneurysm cases: reply.<br>Journal of Thrombosis and Haemostasis, 2017, 15, 397-398.                                    | 1.9 | 1         |
| 142 | Fluid Viscosity and Corresponding Effects on Fluid flow, Velocity Magnitude and Electric Field<br>Distribution in Electrohydrodynamic Jetting Journal of Physics: Conference Series, 2019, 1322, 012008. | 0.3 | 1         |
| 143 | Coupling the Haemodynamic Environment to the Evolution of Cerebral Aneurysms. , 2009, ,  |     | 1         |
| 144 | Flow through a curved duct using nonlinear two-equation turbulence models. AIAA Journal, 1998, 36, 1256-1262.  | 1.5 | 1         |

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|-----|--|-----|-----------|
| 145 | Virtual Flow-T Stenting for Two Patient-Specific Bifurcation Aneurysms. Frontiers in Neurology, 2021, 12, 726980.  | 1.1 | 1         |
| 146 | A sharp-interface model for grid-resolved cavitating flows. International Journal of Multiphase Flow, 2022, 149, 103968.   | 1.6 | 1         |
| 147 | Should friction losses be included in an electromechanical model of a bioinspired flapping-wing micro aerial vehicle to estimate the flight energetic requirements?. Bioinspiration and Biomimetics, 2022, 17, 036011. | 1.5 | 1         |
| 148 | Numerical Investigation of Heat Transfer From a Surface Under the Influence of Two Impinging Pulsating Slot Jets. , 2002, , 15.  |     | 0         |
| 149 | Transition to turbulence and control in the incompressible flow around a NACA0012 wing. , 2005, , 533-542.   |     | 0         |
| 150 | Dynamic Remeshing for Fluid Structure Interaction: Application to Modelling Aortic Dissection. , 2007, , 461.  |     | 0         |
| 151 | An integrative approach to cerebrovascular disease healthcare: IT for cerebral aneurysms. , 2009, , .  |     | Ο         |
| 152 | Modelling Normal Pressure Hydrocephalus as a â€~Two-Hit' Disease Using Multiple-Network Poroelastic<br>Theory. , 2010, , .   |     | 0         |
| 153 | Is Normal Pressure Hydrocephalus more than a mechanical disruption to CSF flow?. , 2010, 2010, 235-8.  |     | Ο         |
| 154 | Patient-Specific Modelling of Intracranial Aneurysm Evolution. , 2011, , .   |     | 0         |
| 155 | Acoustic particle manipulation in a 40 kHz quarter-wavelength standing wave with an air boundary.<br>Journal of the Acoustical Society of America, 2012, 131, 3627-3637.   | 0.5 | 0         |
| 156 | Intracranial Aneurysms: Modeling Inception and Enlargement. , 2013, , 161-173.   |     | 0         |
| 157 | A preliminary study of dynein-driven ciliary motility: A computational model. , 2013, , .  |     | 0         |
| 158 | Percussoluminescence. Proceedings of Meetings on Acoustics, 2013, , .  | 0.3 | 0         |
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