# Andrew Ooi

List of Publications by Year
in descending order



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|---|---|---|---|
| 80 papers | 2,888 citations | 236925 25 h-index | 168389 53 g-index |
| 83 all docs | 83 docs citations | 83 times ranked | 2872 citing authors |

| # | Article | IF | Citations |
|---|---|---|---|
| 1 | Cavitation microstreaming and stress fields created by microbubbles. Ultrasonics, 2010, 50, 273-279. | 3.9 | 243 |
| 2 | Evaporation and dispersion of respiratory droplets from coughing. Indoor Air, 2017, 27, 179-190. | 4.3 | 229 |
| 3 | CFD analysis of ejector in a combined ejector cooling system. International Journal of Refrigeration, 2005, 28, 1092-1101. | 3.4 | 213 |
| 4 | Reynolds averaged simulation of unsteady separated flow. International Journal of Heat and Fluid Flow, 2003, 24, 147-156. | 2.4 | 201 |
| 5 | Cavitation microstreaming patterns in single and multiple bubble systems. Journal of Fluid Mechanics, 2007, 576, 191-233. | 3.4 | 186 |
| 6 | Expert recommendations on the assessment of wall shear stress in human coronary arteries: existing methodologies, technical considerations, and clinical applications. European Heart Journal, 2019, 40, 3421-3433. | 2.2 | 178 |
| 7 | A systematic investigation of roughness height and wavelength in turbulent pipe flow in the transitionally rough regime. Journal of Fluid Mechanics, 2015, 771, 743-777. | 3.4 | 140 |
| 8 | Reynolds averaged simulation of flow and heat transfer in ribbed ducts. International Journal of Heat and Fluid Flow, 2002, 23, 750-757. | 2.4 | 118 |
| 9 | Transitions between Turbulent and Laminar Superfluid Vorticity States in the Outer Core of a Neutron Star. Astrophysical Journal, 2006, 651, 1079-1091. | 4.5 | 97 |
| 10 | Vertical natural convection: application of the unifying theory of thermal convection. Journal of Fluid Mechanics, 2015, 764, 349-361. | 3.4 | 82 |
| 11 | A fast direct numerical simulation method for characterising hydraulic roughness. Journal of Fluid Mechanics, 2015, 773, 418-431. | 3.4 | 77 |
| 12 | Global Threeâ€dimensional Flow of a Neutron Superfluid in a Spherical Shell in a Neutron Star. Astrophysical Journal, 2005, 635, 1224-1232. | 4.5 | 70 |
| 13 | Reynolds number effects in DNS of pipe flow and comparison with channels and boundary layers. International Journal of Heat and Fluid Flow, 2014, 45, 33-40. | 2.4 | 68 |
| 14 | Conjugate heat transfer predictions in two-dimensional ribbed passages. International Journal of Heat and Fluid Flow, 2002, 23, 340-345. | 2.4 | 66 |
| 15 | Passive Acoustic Determination of Wave-Breaking Events and Their Severity across the Spectrum. Journal of Atmospheric and Oceanic Technology, 2006, 23, 599-618. | 1.3 | 56 |
| 16 | Anisotropy in the sound field generated by a bubble chain. Journal of Sound and Vibration, 2004, 278, 807-823. | 3.9 | 53 |
| 17 | The Role of Surfactant Headgroup, Chain Length, and Cavitation Microstreaming on the Growth of Bubbles by Rectified Diffusion. Journal of Physical Chemistry C, 2011, 115, 24310-24316. | 3.1 | 53 |
| 18 | Endothelial Shear Stress andÂPlaqueÂErosion. JACC: Cardiovascular Imaging, 2019, 12, 374-375. | 5.3 | 53 |

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|---|---|---|---|
| 19 | Symmetric mode resonance of bubbles attached to a rigid boundary. Journal of the Acoustical Society of America, 2005, 118, 2841-2849. | 1.1 | 47 |
| 20 | High spatial endothelial shear stress gradient independently predicts site of acute coronary plaque rupture and erosion. Cardiovascular Research, 2021, 117, 1974-1985. | 3.8 | 45 |
| 21 | Time delays in coupled multibubble systems (L). Journal of the Acoustical Society of America, 2005, 117, 47-50. | 1.1 | 43 |
| 22 | BiGlobal stability analysis in curvilinear coordinates of massively separated lifting bodies. Journal of Computational Physics, 2009, 228, 7181-7196. | 3.8 | 38 |
| 23 | Effects of coupling, bubble size, and spatial arrangement on chaotic dynamics of microbubble cluster in ultrasonic fields. Journal of the Acoustical Society of America, 2013, 134, 3425-3434. | 1.1 | 38 |
| 24 | Changes in the boundary-layer structure at theÂedge of the ultimate regime in vertical natural convection. Journal of Fluid Mechanics, 2017, 825, 550-572. | 3.4 | 37 |
| 25 | Endothelial shear stress 5 years after implantation of a coronary bioresorbable scaffold. European Heart Journal, 2018, 39, 1602-1609. | 2.2 | 33 |
| 26 | Analysis of time delay effects on a linear bubble chain system. Journal of the Acoustical Society of America, 2008, 124, 815-826. | 1.1 | 25 |
| 27 | Chaotic micromixing in open wells using audio-frequency acoustic microstreaming. BioTechniques, 2009, 47, 827-834. | 1.8 | 23 |
| 28 | Nonlinear dynamic behavior of microscopic bubbles near a rigid wall. Physical Review E, 2012, 85, 066309. | 2.1 | 21 |
| 29 | Bulk scaling in wall-bounded and homogeneous vertical natural convection. Journal of Fluid Mechanics, 2018, 841, 825-850. | 3.4 | 21 |
| 30 | On the propagation of acoustic energy in the vicinity of a bubble chain. Journal of Sound and Vibration, 2007, 306, 507-523. | 3.9 | 20 |
| 31 | Haemodynamic effects of incomplete stent apposition in curved coronary arteries. Journal of Biomechanics, 2017, 63, 164-173. | 2.1 | 20 |
| 32 | Verification of a Lagrangian particle model for short-range firebrand transport. Fire Safety Journal, 2017, 91, 776-783. | 3.1 | 20 |
| 33 | Receptivity characteristics of under-expanded supersonic impinging jets. Journal of Fluid Mechanics, 2020, 889, . | 3.4 | 19 |
| 34 | Computational fluid dynamics study of common stent models inside idealised curved coronary arteries. Computer Methods in Biomechanics and Biomedical Engineering, 2017, 20, 671-681. | 1.6 | 18 |
| 35 | Cavitation microstreaming and material transport around microbubbles. Physics Procedia, 2010, 3, 427-432. | 1.2 | 17 |
| 36 | The effect of internal diffusion on an evaporating bio-oil droplet â€“ The chemistry free case. Biomass and Bioenergy, 2010, 34, 1134-1140. | 5.7 | 15 |

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|---|---|---|---|
| 37 | Simulation of a Large-Eddy-Break-up Device (LEBU) in a Moderate Reynolds Number Turbulent Boundary Layer. Flow, Turbulence and Combustion, 2017, 98, 445-460. | 2.6 | 15 |
| 38 | Numerical simulation of the blood flow through the coronary artery stenosis: Effects of varying eccentricity. Computers in Biology and Medicine, 2022, 146, 105672. | 7.0 | 14 |
| 39 | Eigenmodal resonances of polydisperse bubble systems on a rigid boundary. Journal of the Acoustical Society of America, 2009, 126, 2929-2938. | 1.1 | 13 |
| 40 | High-order accurate large-eddy simulations of compressible viscous flow in cylindrical coordinates. Computers and Fluids, 2019, 191, 104241. | 2.5 | 13 |
| 41 | Reversal of flow between serial bifurcation lesions: insights from computational fluid dynamic analysis in a population-based phantom model. EuroIntervention, 2015, 11, e1-e3. | 3.2 | 13 |
| 42 | A singularity-avoiding moving least squares scheme for two-dimensional unstructured meshes. Journal of Computational Physics, 2009, 228, 5592-5619. | 3.8 | 10 |
| 43 | Non-Newtonian Endothelial Shear Stress Simulation: Does It Matter?. Frontiers in Cardiovascular Medicine, 2022, 9, 835270. | 2.4 | 9 |
| 44 | Insonation frequency selection may assist detection and therapeutic delivery of targeted ultrasound contrast agents. Therapeutic Delivery, 2011, 2, 213-222. | 2.2 | 6 |
| 45 | Aerodynamic Shape Optimization via Global Extremum Seeking. IEEE Transactions on Control Systems Technology, 2015, 23, 2336-2343. | 5.2 | 6 |
| 46 | Five-year follow-up of underexpanded and overexpanded bioresorbable scaffolds: self-correction and impact on shear stress. EuroIntervention, 2017, 12, 2158-2159. | 3.2 | 6 |
| 47 | Measurement of microbubble-induced acoustic microstreaming using microparticle image velocimetry. , 2005, 5651, 336. | | 5 |
| 48 | Data-driven algebraic models of the turbulent Prandtl number for buoyancy-affected flow near a vertical surface. International Journal of Heat and Mass Transfer, 2021, 179, 121737. | 4.8 | 5 |
| 49 | Computational fluid dynamic simulations informed by CT and 4D flow MRI for post-surgery aortic dissection â€“ A case study. International Journal of Heat and Fluid Flow, 2022, 96, 108986. | 2.4 | 5 |
| 50 | The structure of an unstable circular vortex in a background straining flow. Journal of Fluid Mechanics, 2002, 462, 31-42. | 3.4 | 4 |
| 51 | The interaction of counter-rotating strained vortex pairs with a third vortex. Fluid Dynamics Research, 2009, 41, 035502. | 1.3 | 4 |
| 52 | Coronary optical coherence tomography-derived virtual fractional flow reserve (FFR): anatomy and physiology all-in-one. European Heart Journal, 2017, 38, 3604-3605. | 2.2 | 4 |
| 53 | Early strut protrusion and late neointima thickness in the Absorb bioresorbable scaffold: a serial wall shear stress analysis up to five years. EuroIntervention, 2019, 15, e370-e379. | 3.2 | 4 |
| 54 | Two Dimensional Analysis and Optimization of Hybrid MDCD-TENO Schemes. Journal of Scientific Computing, 2022, 90, 1. | 2.3 | 4 |

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|---|---|---|---|
| 55 | Analysis of sound pressure levels generated by nozzle-emitted large bubbles. JASA Express Letters, 2022, 2, 054002. | 1.1 | 4 |
| 56 | Acoustic microstreaming applied to batch micromixing. , 2005, 6036, 485. | | 3 |
| 57 | Computational aeroacoustics using the B-spline collocation method. Comptes Rendus - Mecanique, 2005, 333, 726-731. | 2.1 | 3 |
| 58 | Batchelorâ€™s spectrum from an axisymmetric strained scalar field. Physics of Fluids, 2006, 18, 065111. | 4.0 | 3 |
| 59 | A new perspective on spectral analysis of numerical schemes. International Journal for Numerical Methods in Fluids, 2012, 68, 467-482. | 1.6 | 3 |
| 60 | Is there a need for fully converged CFD solutions? Global extremum seeking applied to aerodynamic shape optimisation. , 2013, , . | | 3 |
| 61 | The minimal channel: a fast and direct method for characterising roughness. Journal of Physics: Conference Series, 2016, 708, 012010. | 0.4 | 3 |
| 62 | Optimization Framework for Codesign of Controlled Aerodynamic Systems. AIAA Journal, 2016, 54, 3149-3159. | 2.6 | 3 |
| 63 | Numerical Study of Incomplete Stent Apposition Caused by Deploying Undersized Stent in Arteries With Elliptical Cross Sections. Journal of Biomechanical Engineering, 2019, 141, . | 1.3 | 3 |
| 64 | Two Dimensional Analysis of Hybrid Spectral/Finite Difference Schemes for Linearized Compressible Navierâ€“Stokes Equations. Journal of Scientific Computing, 2021, 87, 1. | 2.3 | 3 |
| 65 | High endothelial shear stress and stress gradient at plaque erosion persist up to 12Âmonths. International Journal of Cardiology, 2022, 357, 1-7. | 1.7 | 3 |
| 66 | Investigating Shear-Layer Instabilities in Supersonic Impinging Jets Using Dual-Time Particle Image Velocimetry. AIAA Journal, 2022, 60, 3749-3759. | 2.6 | 3 |
| 67 | Measurement of pressure on a surface using bubble acoustic resonances. Measurement Science and Technology, 2010, 21, 027002. | 2.6 | 2 |
| 68 | Theoretical and experimental evaluation of microstreaming created by a single microbubble: Application to sonoporation. , 2011, , . | | 2 |
| 69 | Quantitative Guidelines for the Prediction of Ultrasound Contrast Agent Destruction During Injection. Ultrasound in Medicine and Biology, 2013, 39, 1838-1847. | 1.5 | 2 |
| 70 | Computational particle tracking to model platelet behaviour near malapposed coronary stent struts. European Heart Journal, 2019, 40, 1890-1891. | 2.2 | 2 |
| 71 | Measurement and analysis of the shear layer instabilities in supersonic impinging jets. , 2020, , . | | 2 |
| 72 | Characteristics of a buoyant plume in a channel with cross-flow. International Journal of Heat and Fluid Flow, 2022, 93, 108899. | 2.4 | 2 |

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|---|---|---|---|
| 73 | Numerical Modelling of Flow and Heat Transfer in the Rotating Disc Cavities of a Turboprop Engine. Annals of the New York Academy of Sciences, 2006, 934, 497-504. | 3.8 | 1 |
| 74 | Adjoint assisted geometry design of a feedback controlled missile. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2014, 47, 451-456. | 0.4 | 1 |
| 75 | Evolution of a wall-attached buoyant plume in confined boxes: Direct numerical simulations, entrainment coefficient and an integral model. International Journal of Heat and Fluid Flow, 2021, 90, 108824. | 2.4 | 1 |
| 76 | Calculation of scalar structure functions from a vortex model of turbulent passive scalar transport. Physics of Fluids, 2008, 20, 025108. | 4.0 | 0 |
| 77 | Nonlinear oscillations of air bubbles near and on a rigid boundary with time delay effects. , 2008, , . | | 0 |
| 78 | An improved interpolation scheme for finite volume simulations on unstructured meshes. Mathematics of Computation, 2012, 82, 803-830. | 2.1 | 0 |
| 79 | Decomposition of Radiating and Non-Radiating Linear Fluctuating Components in Compressible Flows. , 2016, , 388-396. | | 0 |
| 80 | Sensitivity analysis of FDAÂ´s benchmark nozzle regarding in vitro imperfections - Do we need asymmetric CFD benchmarks?. Current Directions in Biomedical Engineering, 2020, 6, 78-81. | 0.4 | 0 |