

# Andrew Ooi

## List of Publications by Year in descending order

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80  
papers

2,888  
citations

236612

25  
h-index

168136

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. <i>Ultrasonics</i> , 2010, 50, 273-279.	2.1	243
2	Evaporation and dispersion of respiratory droplets from coughing. <i>Indoor Air</i> , 2017, 27, 179-190.	2.0	229
3	CFD analysis of ejector in a combined ejector cooling system. <i>International Journal of Refrigeration</i> , 2005, 28, 1092-1101.	1.8	213
4	Reynolds averaged simulation of unsteady separated flow. <i>International Journal of Heat and Fluid Flow</i> , 2003, 24, 147-156.	1.1	201
5	Cavitation microstreaming patterns in single and multiple bubble systems. <i>Journal of Fluid Mechanics</i> , 2007, 576, 191-233.	1.4	186
6	Expert recommendations on the assessment of wall shear stress in human coronary arteries: existing methodologies, technical considerations, and clinical applications. <i>European Heart Journal</i> , 2019, 40, 3421-3433.	1.0	178
7	A systematic investigation of roughness height and wavelength in turbulent pipe flow in the transitionally rough regime. <i>Journal of Fluid Mechanics</i> , 2015, 771, 743-777.	1.4	140
8	Reynolds averaged simulation of flow and heat transfer in ribbed ducts. <i>International Journal of Heat and Fluid Flow</i> , 2002, 23, 750-757.	1.1	118
9	Transitions between Turbulent and Laminar Superfluid Vorticity States in the Outer Core of a Neutron Star. <i>Astrophysical Journal</i> , 2006, 651, 1079-1091.	1.6	97
10	Vertical natural convection: application of the unifying theory of thermal convection. <i>Journal of Fluid Mechanics</i> , 2015, 764, 349-361.	1.4	82
11	A fast direct numerical simulation method for characterising hydraulic roughness. <i>Journal of Fluid Mechanics</i> , 2015, 773, 418-431.	1.4	77
12	Global Three-dimensional Flow of a Neutron Superfluid in a Spherical Shell in a Neutron Star. <i>Astrophysical Journal</i> , 2005, 635, 1224-1232.	1.6	70
13	Reynolds number effects in DNS of pipe flow and comparison with channels and boundary layers. <i>International Journal of Heat and Fluid Flow</i> , 2014, 45, 33-40.	1.1	68
14	Conjugate heat transfer predictions in two-dimensional ribbed passages. <i>International Journal of Heat and Fluid Flow</i> , 2002, 23, 340-345.	1.1	66
15	Passive Acoustic Determination of Wave-Breaking Events and Their Severity across the Spectrum. <i>Journal of Atmospheric and Oceanic Technology</i> , 2006, 23, 599-618.	0.5	56
16	Anisotropy in the sound field generated by a bubble chain. <i>Journal of Sound and Vibration</i> , 2004, 278, 807-823.	2.1	53
17	The Role of Surfactant Headgroup, Chain Length, and Cavitation Microstreaming on the Growth of Bubbles by Rectified Diffusion. <i>Journal of Physical Chemistry C</i> , 2011, 115, 24310-24316.	1.5	53
18	Endothelial Shear Stress and Plaque Erosion. <i>JACC: Cardiovascular Imaging</i> , 2019, 12, 374-375.	2.3	53

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19	Symmetric mode resonance of bubbles attached to a rigid boundary. <i>Journal of the Acoustical Society of America</i> , 2005, 118, 2841-2849.	0.5	47
20	High spatial endothelial shear stress gradient independently predicts site of acute coronary plaque rupture and erosion. <i>Cardiovascular Research</i> , 2021, 117, 1974-1985.	1.8	45
21	Time delays in coupled multibubble systems (L). <i>Journal of the Acoustical Society of America</i> , 2005, 117, 47-50.	0.5	43
22	BiGlobal stability analysis in curvilinear coordinates of massively separated lifting bodies. <i>Journal of Computational Physics</i> , 2009, 228, 7181-7196.	1.9	38
23	Effects of coupling, bubble size, and spatial arrangement on chaotic dynamics of microbubble cluster in ultrasonic fields. <i>Journal of the Acoustical Society of America</i> , 2013, 134, 3425-3434.	0.5	38
24	Changes in the boundary-layer structure at the edge of the ultimate regime in vertical natural convection. <i>Journal of Fluid Mechanics</i> , 2017, 825, 550-572.	1.4	37
25	Endothelial shear stress 5 years after implantation of a coronary bioresorbable scaffold. <i>European Heart Journal</i> , 2018, 39, 1602-1609.	1.0	33
26	Analysis of time delay effects on a linear bubble chain system. <i>Journal of the Acoustical Society of America</i> , 2008, 124, 815-826.	0.5	25
27	Chaotic micromixing in open wells using audio-frequency acoustic microstreaming. <i>BioTechniques</i> , 2009, 47, 827-834.	0.8	23
28	Nonlinear dynamic behavior of microscopic bubbles near a rigid wall. <i>Physical Review E</i> , 2012, 85, 066309.	0.8	21
29	Bulk scaling in wall-bounded and homogeneous vertical natural convection. <i>Journal of Fluid Mechanics</i> , 2018, 841, 825-850.	1.4	21
30	On the propagation of acoustic energy in the vicinity of a bubble chain. <i>Journal of Sound and Vibration</i> , 2007, 306, 507-523.	2.1	20
31	Haemodynamic effects of incomplete stent apposition in curved coronary arteries. <i>Journal of Biomechanics</i> , 2017, 63, 164-173.	0.9	20
32	Verification of a Lagrangian particle model for short-range firebrand transport. <i>Fire Safety Journal</i> , 2017, 91, 776-783.	1.4	20
33	Receptivity characteristics of under-expanded supersonic impinging jets. <i>Journal of Fluid Mechanics</i> , 2020, 889, .	1.4	19
34	Computational fluid dynamics study of common stent models inside idealised curved coronary arteries. <i>Computer Methods in Biomechanics and Biomedical Engineering</i> , 2017, 20, 671-681.	0.9	18
35	Cavitation microstreaming and material transport around microbubbles. <i>Physics Procedia</i> , 2010, 3, 427-432.	1.2	17
36	The effect of internal diffusion on an evaporating bio-oil droplet – The chemistry free case. <i>Biomass and Bioenergy</i> , 2010, 34, 1134-1140.	2.9	15

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37	Simulation of a Large-Eddy-Break-up Device (LEBU) in a Moderate Reynolds Number Turbulent Boundary Layer. <i>Flow, Turbulence and Combustion</i> , 2017, 98, 445-460.	1.4	15
38	Numerical simulation of the blood flow through the coronary artery stenosis: Effects of varying eccentricity. <i>Computers in Biology and Medicine</i> , 2022, 146, 105672.	3.9	14
39	Eigenmodal resonances of polydisperse bubble systems on a rigid boundary. <i>Journal of the Acoustical Society of America</i> , 2009, 126, 2929-2938.	0.5	13
40	High-order accurate large-eddy simulations of compressible viscous flow in cylindrical coordinates. <i>Computers and Fluids</i> , 2019, 191, 104241.	1.3	13
41	Reversal of flow between serial bifurcation lesions: insights from computational fluid dynamic analysis in a population-based phantom model. <i>EuroIntervention</i> , 2015, 11, e1-e3.	1.4	13
42	A singularity-avoiding moving least squares scheme for two-dimensional unstructured meshes. <i>Journal of Computational Physics</i> , 2009, 228, 5592-5619.	1.9	10
43	Non-Newtonian Endothelial Shear Stress Simulation: Does It Matter?. <i>Frontiers in Cardiovascular Medicine</i> , 2022, 9, 835270.	1.1	9
44	Insonation frequency selection may assist detection and therapeutic delivery of targeted ultrasound contrast agents. <i>Therapeutic Delivery</i> , 2011, 2, 213-222.	1.2	6
45	Aerodynamic Shape Optimization via Global Extremum Seeking. <i>IEEE Transactions on Control Systems Technology</i> , 2015, 23, 2336-2343.	3.2	6
46	Five-year follow-up of underexpanded and overexpanded bioresorbable scaffolds: self-correction and impact on shear stress. <i>EuroIntervention</i> , 2017, 12, 2158-2159.	1.4	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. <i>International Journal of Heat and Mass Transfer</i> , 2021, 179, 121737.	2.5	5
49	Computational fluid dynamic simulations informed by CT and 4D flow MRI for post-surgery aortic dissection – A case study. <i>International Journal of Heat and Fluid Flow</i> , 2022, 96, 108986.	1.1	5
50	The structure of an unstable circular vortex in a background straining flow. <i>Journal of Fluid Mechanics</i> , 2002, 462, 31-42.	1.4	4
51	The interaction of counter-rotating strained vortex pairs with a third vortex. <i>Fluid Dynamics Research</i> , 2009, 41, 035502.	0.6	4
52	Coronary optical coherence tomography-derived virtual fractional flow reserve (FFR): anatomy and physiology all-in-one. <i>European Heart Journal</i> , 2017, 38, 3604-3605.	1.0	4
53	Early strut protrusion and late neointima thickness in the Absorb bioresorbable scaffold: a serial wall shear stress analysis up to five years. <i>EuroIntervention</i> , 2019, 15, e370-e379.	1.4	4
54	Two Dimensional Analysis and Optimization of Hybrid MDCD-TENO Schemes. <i>Journal of Scientific Computing</i> , 2022, 90, 1.	1.1	4

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55	Analysis of sound pressure levels generated by nozzle-emitted large bubbles. <i>JASA Express Letters</i> , 2022, 2, 054002.	0.5	4
56	Acoustic microstreaming applied to batch micromixing. , 2005, 6036, 485.		3
57	Computational aeroacoustics using the B-spline collocation method. <i>Comptes Rendus - Mecanique</i> , 2005, 333, 726-731.	2.1	3
58	Batchelor's spectrum from an axisymmetric strained scalar field. <i>Physics of Fluids</i> , 2006, 18, 065111.	1.6	3
59	A new perspective on spectral analysis of numerical schemes. <i>International Journal for Numerical Methods in Fluids</i> , 2012, 68, 467-482.	0.9	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. <i>Journal of Physics: Conference Series</i> , 2016, 708, 012010.	0.3	3
62	Optimization Framework for Codesign of Controlled Aerodynamic Systems. <i>AIAA Journal</i> , 2016, 54, 3149-3159.	1.5	3
63	Numerical Study of Incomplete Stent Apposition Caused by Deploying Undersized Stent in Arteries With Elliptical Cross Sections. <i>Journal of Biomechanical Engineering</i> , 2019, 141, .	0.6	3
64	Two Dimensional Analysis of Hybrid Spectral/Finite Difference Schemes for Linearized Compressible Navier-Stokes Equations. <i>Journal of Scientific Computing</i> , 2021, 87, 1.	1.1	3
65	High endothelial shear stress and stress gradient at plaque erosion persist up to 12 months. <i>International Journal of Cardiology</i> , 2022, 357, 1-7.	0.8	3
66	Investigating Shear-Layer Instabilities in Supersonic Impinging Jets Using Dual-Time Particle Image Velocimetry. <i>AIAA Journal</i> , 2022, 60, 3749-3759.	1.5	3
67	Measurement of pressure on a surface using bubble acoustic resonances. <i>Measurement Science and Technology</i> , 2010, 21, 027002.	1.4	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. <i>Ultrasound in Medicine and Biology</i> , 2013, 39, 1838-1847.	0.7	2
70	Computational particle tracking to model platelet behaviour near malapposed coronary stent struts. <i>European Heart Journal</i> , 2019, 40, 1890-1891.	1.0	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. <i>International Journal of Heat and Fluid Flow</i> , 2022, 93, 108899.	1.1	2

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73	Numerical Modelling of Flow and Heat Transfer in the Rotating Disc Cavities of a Turbo-prop Engine. Annals of the New York Academy of Sciences, 2006, 934, 497-504.	1.8	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.	1.1	1
76	Calculation of scalar structure functions from a vortex model of turbulent passive scalar transport. Physics of Fluids, 2008, 20, 025108.	1.6	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.	1.1	0
79	Decomposition of Radiating and Non-Radiating Linear Fluctuating Components in Compressible Flows. , 2016, , 388-396.		0
80	Sensitivity analysis of FDA's benchmark nozzle regarding in vitro imperfections - Do we need asymmetric CFD benchmarks?. Current Directions in Biomedical Engineering, 2020, 6, 78-81.	0.2	0