Cheng Chin

List of Publications by Year
in descending order

59 papers	890 citations	430874 18 h-index	526287 27 g-index
59 all docs	59 docs citations	59 times ranked	621 citing authors

#	Article	IF	Citations
1	A Review on the Effect of Temporal Geometric Variations of the Coronary Arteries on the Wall Shear Stress and Pressure Drop. Journal of Biomechanical Engineering, 2022, 144, .	1.3	6
2	Experimental characteristics and coupled nonlinear forced vibrations of axially travelling hyperelastic beams. Thin-Walled Structures, 2022, 170, 108526.	5.3	31
3	Outer turbulent boundary layer similarities for different 2D surface roughnesses at matched Reynolds number. International Journal of Heat and Fluid Flow, 2022, 94, 108940.	2.4	5
4	Investigation of the influence of miniature vortex generators on the large-scale motions of a turbulent boundary layer. Journal of Fluid Mechanics, 2022, 932, .	3.4	4
5	Large-scale and small-scale contribution to the skin friction reduction in a modified turbulent boundary layer by a large-eddy break-up device. Physical Review Fluids, 2022, 7, .	2.5	4
6	Nonlinear continuum mechanics of thick hyperelastic sandwich beams using various shear deformable beam theories. Continuum Mechanics and Thermodynamics, 2022, 34, 781-827.	2.2	14
7	A new equivalent sand grain roughness relation for two-dimensional rough wall turbulent boundary layers. Journal of Fluid Mechanics, 2022, 940, .	3.4	10
8	Precursors of backflow events and their relationship with the near-wall self-sustaining process. Journal of Fluid Mechanics, 2022, 933, .	3.4	8
9	Decomposition of the Reynolds shear stress in a turbulent boundary layer modified by miniature vortex generators. Physical Review Fluids, 2022, 7, .	2.5	2
10	Extension of the 1D Unsteady Friction Model for Rapidly Accelerating and Decelerating Turbulent Pipe Flows. Journal of Hydraulic Engineering, 2022, 148, .	1.5	4
11	Swirling turbulent pipe flows: Inertial region and velocityâ€"vorticity correlations. International Journal of Heat and Fluid Flow, 2021, 87, 108767.	2.4	1
12	Numerical study of geometric morphing wings of the 1303 UCAV. Aeronautical Journal, 2021, 125, 1192-1208.	1.6	3
13	Effect of artery curvature on the coronary fractional flow reserve. Physics of Fluids, 2021, 33, .	4.0	6
14	The skin-friction coefficient of a turbulent boundary layer modified by a large-eddy break-up device. Physics of Fluids, 2021, 33, .	4.0	5
15	Transient dynamics of accelerating turbulent pipe flow. Journal of Fluid Mechanics, 2021, 917, .	3.4	13
16	Dynamics of semi- and neutrally-buoyant particles in thermally stratified turbulent channel flow. International Journal of Multiphase Flow, 2021, 139, 103595.	3.4	1
17	A novel technique towards investigating wall shear stress within the stent struts using particle image velocimetry. Experiments in Fluids, 2021, 62, 1.	2.4	2
18	Interscale transport mechanisms in turbulent boundary layers. Journal of Fluid Mechanics, 2021, 921, .	3.4	23

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19	Effect of shape of the stenosis on the hemodynamics of a stenosed coronary artery. Physics of Fluids, 2021, 33, .	4.0	24
20	Flow regimes within horizontal particle-laden pipe flows. International Journal of Multiphase Flow, 2021, 143, 103748.	3.4	9
21	Large amplitude vibrations of imperfect porous-hyperelastic beams via a modified strain energy. Journal of Sound and Vibration, 2021, 513, 116416.	3.9	35
22	The influence of the coefficient of restitution on flow regimes within horizontal particle-laden pipe flows. Physics of Fluids, 2021, 33, .	4.0	8
23	Extreme wall shear stress events in turbulent pipe flows: spatial characteristics of coherent motions. Journal of Fluid Mechanics, 2020, 904, .	3.4	27
24	Transitional turbulent flow in a stenosed coronary artery with a physiological pulsatile flow. International Journal for Numerical Methods in Biomedical Engineering, 2020, 36, e3347.	2.1	22
25	A direct comparison of pulsatile and non-pulsatile rough-wall turbulent pipe flow. Journal of Fluid Mechanics, 2020, 895, .	3.4	8
26	An experimental model for pressure drop evaluation in a stenosed coronary artery. Physics of Fluids, 2020, 32, .	4.0	20
27	Backflow events under the effect of secondary flow of Prandtl's first kind. Physical Review Fluids, 2020, 5, .	2.5	14
28	A Numerical Study of the Effects of the Velocity Ratio on Coflow Jet Characteristics. Journal of Fluids Engineering, Transactions of the ASME, 2020, 142, .	1.5	8
29	Vorticity Transport in Turbulent Pipe Flow. , 2020, , .		2
30	Drag Penalty Causing from the Roughness of Recently Cleaned and Painted Ship Hull Using RANS CFD. CFD Letters, 2020, 12, 78-88.	0.8	8
31	Turbulent Boundary Layer over various 2D Uniform Distributed Roughness Elements. , 2020, , .		0
32	Hemodynamics of stented coronary arteries: Experimental and numerical investigations. , 2020, , .		0
33	Numerical simulation of two-stages contra-rotating vertical axis wind turbine. , 2020, , .		1
34	A numerical study of gravity effects on horizontal particle-laden pipe flows. , 2020, , .		0
35	Hydrodynamic simulation of submarine far field flow. , 2020, , .		0
36	Performance Analysis of Novel Blade Design of Vertical Axis Wind Turbine. , 2019, , .		1

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37	Direct numerical simulation of low Reynolds number turbulent swirling pipe flows. Physical Review Fluids, 2019, 4, .	2.5	2
38	Endothelial shear stress 5 years after implantation of a coronary bioresorbable scaffold. European Heart Journal, 2018, 39, 1602-1609.	2.2	33
39	Mechanism of sweep event attenuation using micro-cavities in a turbulent boundary layer. Physics of Fluids, 2018, 30, .	4.0	8
40	Conditionally averaged flow topology about a critical point pair in the skin friction field of pipe flows using direct numerical simulations. Physical Review Fluids, 2018, 3, .	2.5	13
41	Numerical and experimental investigations of the flowâ€“pressure relation in multiple sequential stenoses coronary artery. International Journal of Cardiovascular Imaging, 2017, 33, 1083-1088.	1.5	15
42	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
43	Influence of a Large-Eddy-Breakup-Device on the Turbulent Interface of Boundary Layers. Flow, Turbulence and Combustion, 2017, 99, 823-835.	2.6	6
44	Attenuation of turbulence by the passive control of sweep events in a turbulent boundary layer using micro-cavities. Physics of Fluids, 2017, 29, .	4.0	8
45	On Large-Scale Friction Control in Turbulent Wall Flow in Low Reynolds Number Channels. Flow, Turbulence and Combustion, 2016, 97, 811-827.	2.6	21
46	Reynolds number dependence of large-scale friction control in turbulent channel flow. Physical Review Fluids, 2016, 1, .	2.5	22
47	Advances in three-dimensional coronary imaging and computational fluid dynamics. Coronary Artery Disease, 2015, 26, e43-e54.	0.7	10
48	An investigation of channel flow with a smooth airâ€“water interface. Experiments in Fluids, 2015, 56, 1.	2.4	2
49	Turbulent pipe flow at ReÏ„ â‰ˆ 1000 : A comparison of wall-resolved large-eddy simulation, direct numerical simulation and hot-wire experiment. Computers and Fluids, 2015, 122, 26-33.	2.5	17
50	Reynolds-number-dependent turbulent inertia and onset of log region in pipe flows. Journal of Fluid Mechanics, 2014, 757, 747-769.	3.4	53
51	Large eddy simulation and Reynolds-averaged Navier-Stokes calculations of supersonic impinging jets at varying nozzle-to-wall distances and impinging angles. International Journal of Heat and Fluid Flow, 2014, 47, 31-41.	2.4	12
52	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
53	Investigation of the Flow Structures in Supersonic Free and Impinging Jet Flows. Journal of Fluids Engineering, Transactions of the ASME, 2013, 135, .	1.5	34
54	Emergence of the four layer dynamical regime in turbulent pipe flow. Physics of Fluids, 2012, 24, 045107.	4.0	22

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55	The influence of pipe length on thermal statistics computed from DNS of turbulent heat transfer. International Journal of Heat and Fluid Flow, 2011, 32, 1083-1097.	2.4	22
56	Spatial resolution correction for hot-wire anemometry in wall turbulence. Experiments in Fluids, 2011, 50, 1443-1453.	2.4	28
57	The influence of pipe length on turbulence statistics computed from direct numerical simulation data. Physics of Fluids, 2010, 22, .	4.0	101
58	Use of direct numerical simulation (DNS) data to investigate spatial resolution issues in measurements of wall-bounded turbulence. Measurement Science and Technology, 2009, 20, 115401.	2.6	47
59	A Theoretical Review of Rotating Detonation Engines. , 0, , .		2