Mark Francis Tachie

List of Publications by Year
in descending order

80 papers	1,061 citations	361045 20 h-index	500791 28 g-index
80 all docs	80 docs citations	80 times ranked	540 citing authors

#	Article	IF	Citations
1	PIV measurements of flow through a model porous medium with varying boundary conditions. Journal of Fluid Mechanics, 2009, 629, 343-374.	1.4	54
2	On the unsteady characteristics of turbulent separations over a forwardâ€“backward-facing step. Journal of Fluid Mechanics, 2019, 863, 994-1030.	1.4	52
3	Velocity measurements of a shear flow penetrating a porous medium. Journal of Fluid Mechanics, 2003, 493, 319-343.	1.4	46
4	PIV Study of Separated and Reattached Open Channel Flow Over Surface Mounted Blocks. Journal of Fluids Engineering, Transactions of the ASME, 2008, 130, .	0.8	38
5	PIV Measurements in the Near and Intermediate Field Regions of Jets Issuing from Eight Different Nozzle Geometries. Flow, Turbulence and Combustion, 2017, 99, 329-351.	1.4	34
6	The Effects of Surface Roughness on the Mean Velocity Profile in a Turbulent Boundary Layer. Journal of Fluids Engineering, Transactions of the ASME, 2002, 124, 664-670.	0.8	33
7	Flow characteristics within the recirculation region of three-dimensional turbulent offset jet. Journal of Hydraulic Research/De Recherches Hydrauliques, 2015, 53, 230-242.	0.7	31
8	Effects of upstream roughness and Reynolds number on separated and reattached turbulent flow. Journal of Turbulence, 2015, 16, 872-899.	0.5	30
9	Highly-disturbed turbulent flow in a square channel with V-shaped ribs on one wall. International Journal of Heat and Fluid Flow, 2015, 56, 182-197.	1.1	29
10	Characteristics of Shallow Turbulent Near Wakes at Low Reynolds Numbers. Journal of Fluids Engineering, Transactions of the ASME, 2000, 122, 302-308.	0.8	28
11	Open Channel Boundary Layer Relaxation Behind a Forward Facing Step at Low Reynolds Numbers. Journal of Fluids Engineering, Transactions of the ASME, 2001, 123, 539-544.	0.8	28
12	Large-eddy simulation of turbulent flow and structures in a square duct roughened with perpendicular and V-shaped ribs. Physics of Fluids, 2017, 29, .	1.6	28
13	Spatio-temporal dynamics of flow separation induced by a forward-facing step submerged in a thick turbulent boundary layer. Journal of Fluid Mechanics, 2020, 892, .	1.4	26
14	Roughness Effects on Turbulent Flow Downstream of a Backward Facing Step. Flow, Turbulence and Combustion, 2015, 94, 125-153.	1.4	24
15	Flows over surface-mounted bluff bodies with different spanwise widths submerged in a deep turbulent boundary layer. Journal of Fluid Mechanics, 2019, 877, 717-758.	1.4	24
16	Experimental Investigation of Nozzle Spacing Effects on Characteristics of Round Twin Free Jets. Journal of Fluids Engineering, Transactions of the ASME, 2019, 141, .	0.8	24
17	Statistical Properties of Round, Square, and Elliptic Jets at Low and Moderate Reynolds Numbers. Journal of Fluids Engineering, Transactions of the ASME, 2017, 139, .	0.8	23
18	Experimental study of turbulent flow near model trashracks. Journal of Hydraulic Research/De Recherches Hydrauliques, 2009, 47, 275-280.	0.7	22

#	Article	IF	Citations
19	Open-channel turbulent flow through bar racks. Journal of Hydraulic Research/De Recherches Hydrauliques, 2014, 52, 630-643.	0.7	22
20	Time-resolved PIV measurement of influence of upstream roughness on separated and reattached turbulent flows over a forward-facing step. AIP Advances, 2018, 8, .	0.6	22
21	Roughness Effects on the Mixing Properties in Open Channel Turbulent Boundary Layers. Journal of Fluids Engineering, Transactions of the ASME, 2004, 126, 1025-1032.	0.8	20
22	Particle image velocimetry study of turbulent flow over transverse square ribs in an asymmetric diffuser. Physics of Fluids, 2007, 19, 065106.	1.6	20
23	Statistical properties and structural analysis of three-dimensional twin round jets due to variation in Reynolds number. International Journal of Heat and Fluid Flow, 2019, 76, 215-230.	1.1	20
24	Time-resolved wake dynamics of finite wall-mounted circular cylinders submerged in a turbulent boundary layer. Journal of Fluid Mechanics, 2021, 917, .	1.4	20
25	Favorable pressure gradient turbulent flow over straight and inclined ribs on both channel walls. Physics of Fluids, 2008, 20, .	1.6	19
26	Characteristics of flow past elongated bluff bodies with underbody gaps due to varying inflow turbulence. Physics of Fluids, 2021, 33, .	1.6	19
27	Proper Orthogonal Decomposition Analysis of Separated and Reattached Pressure Gradient Flows. AIAA Journal, 2009, 47, 2616-2631.	1.5	17
28	Upstream roughness and Reynolds number effects on turbulent flow structure over forward facing step. International Journal of Heat and Fluid Flow, 2017, 66, 226-242.	1.1	17
29	On the Development of Incompressible Round and Equilateral Triangular Jets Due to Reynolds Number Variation. Journal of Fluids Engineering, Transactions of the ASME, 2018, 140, .	0.8	17
30	Experimental study of the flow structures of 3D turbulent offset jets. Journal of Hydraulic Research/De Recherches Hydrauliques, 2015, 53, 773-786.	0.7	16
31	Experimental and numerical investigation of developing turbulent flow over a wavy wall in a horizontal channel. European Journal of Mechanics, B/Fluids, 2018, 68, 128-143.	1.2	16
32	Turbulent Flow Around Rectangular Cylinders With Different Streamwise Aspect Ratios. Journal of Fluids Engineering, Transactions of the ASME, 2022, 144, .	0.8	16
33	Effects of sedimenting particles on the turbulence structure in a horizontal channel flow. Physics of Fluids, 2015, 27, .	1.6	15
34	Effect of Nozzle Spacing on Turbulent Interaction of Low-Aspect-Ratio Twin Rectangular Jets. Flow, Turbulence and Combustion, 2019, 103, 323-344.	1.4	15
35	Flow Relaxation Past a Transverse Square Rib in Pressure Gradients. AIAA Journal, 2008, 46, 1849-1863.	1.5	12
36	Effects of Nozzle Geometry on Turbulent Characteristics and Structure of Surface Attaching Jets. Flow, Turbulence and Combustion, 2019, 103, 797-825.	1.4	12

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37	Streamwise Aspect Ratio Effects on Turbulent Flow Separations Induced by Forwardâ€“Backward-Facing Steps. Journal of Fluids Engineering, Transactions of the ASME, 2021, 143, .	0.8	12
38	Effects of offset height on the turbulent characteristics of a surface attaching jet. International Journal of Heat and Fluid Flow, 2018, 71, 305-321.	1.1	10
39	Submerged turbulent twin jets interacting with a free surface and a solid wall. International Journal of Heat and Fluid Flow, 2018, 71, 27-38.	1.1	9
40	The Effects of Upstream Wall Roughness on the Spatio-Temporal Characteristics of Flow Separations Induced by a Forward-Facing Step. Journal of Fluids Engineering, Transactions of the ASME, 2021, 143, .	0.8	9
41	PIV investigation of flow over a transverse square rib in pressure gradients. Journal of Turbulence, 2009, 10, N39.	0.5	8
42	Roughness effect on turbulent flow structure beneath a simulated ice jam. Journal of Hydraulic Research/De Recherches Hydrauliques, 2019, 57, 238-249.	0.7	8
43	Tracking the flapping motion of flow separation using pointwise measurement. Physics of Fluids, 2020, 32, 035106.	1.6	8
44	Characteristics of a horizontal square jet interacting with the free surface. Physical Review Fluids, 2017, 2, .	1.0	8
45	Skin Friction Correlation in Open Channel Boundary Layers. Journal of Fluids Engineering, Transactions of the ASME, 2001, 123, 953-956.	0.8	8
46	Particle image velocimetry measurements in curved turbulent jets produced from a slot diffuser. Experimental Thermal and Fluid Science, 2013, 49, 169-184.	1.5	7
47	Hydraulic and turbulent flow characteristics beneath a simulated partial ice-cover. Journal of Hydraulic Research/De Recherches Hydrauliques, 2021, 59, 392-403.	0.7	7
48	Structure of turbulent flow over 90Â° and 45Â° transverse ribs. Journal of Turbulence, 2009, 10, N20.	0.5	6
49	Flow characteristics of an offset jet over a surface mounted square rib. Journal of Turbulence, 2016, 17, 727-757.	0.5	6
50	Free surface effects on the statistical properties of a submerged rectangular jet. Physics of Fluids, 2017, 29, 025101.	1.6	6
51	Flow Characteristics of Submerged Twin Jets Interacting with Free Surface. AIAA Journal, 2017, 55, 3622-3625.	1.5	6
52	Reynolds number effect on flow characteristics of surface single and twin jets. Journal of Hydraulic Research/De Recherches Hydrauliques, 2019, 57, 808-821.	0.7	6
53	Direct numerical simulation of turbulent flow separation induced by a forward-facing step. International Journal of Heat and Fluid Flow, 2021, 87, 108753.	1.1	6
54	Particle Image Velocimetry Measurements of Turbulent Jets Issuing From Twin Elliptic Nozzles With Various Orientations. Journal of Fluids Engineering, Transactions of the ASME, 2021, 143, .	0.8	6

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55	Turbulent Properties of Triple Elliptic Free Jets With Various Nozzle Orientation. Journal of Fluids Engineering, Transactions of the ASME, 2020, 142, .	0.8	5
56	Surface roughness effects on separated and reattached turbulent flow in open channel. Journal of Hydraulic Research/De Recherches Hydrauliques, 2015, 53, 302-316.	0.7	4
57	Acoustic Doppler velocimeter measurements of a submerged three-dimensional offset jet flow over rough surfaces. Journal of Hydraulic Research/De Recherches Hydrauliques, 2017, 55, 40-49.	0.7	4
58	The Wake Dynamics Behind a Near-Wall Square Cylinder. Journal of Fluids Engineering, Transactions of the ASME, 2022, 144, .	0.8	4
59	PIV Investigation of Reynolds Number Effects on a Closed Channel Flow Over a Smooth Forward Facing Step. , 2014, , .		3
60	Comparison of Turbulent Jets Issuing From Various Sharp Contoured Nozzles. , 2017, , .		3
61	Experimental and numerical investigation of three-dimensional open channel with simulated partial ice-covers. Journal of Hydraulic Research/De Recherches Hydrauliques, 0, , 1-12.	0.7	3
62	Comparative Evaluation of Single/Twin Round and Elliptic Jets Using Particle Image Velocimetry. , 2018, , .		2
63	Effect of discharge and upstream jam angle on the flow distribution beneath a simulated ice jam. Canadian Journal of Civil Engineering, 2019, 46, 413-423.	0.7	2
64	Three-dimensional structural characteristics of flow separation induced by a forward-facing step in a turbulent channel flow. Journal of Fluid Mechanics, 2021, 919, .	1.4	2
65	Low Reynolds Number Open Channel Flows Over a Backward Facing Step. , 2012, , .		1
66	Experimental Study of Reynolds Number Effects on Three-Dimensional Offset Jets. , 2014, , .		1
67	Experimental-Numerical Analysis of Turbulent Incompressible Isothermal Jets. , 2017, , .		1
68	Offset height effect on turbulent characteristics of twin surface jets. Journal of Hydraulic Research/De Recherches Hydrauliques, 2020, 58, 910-919.	0.7	1
69	Modelling of Laminar Canonical Flows: Revisit. , 2012, , .		0
70	PIV Investigation of Separated and Reattached Turbulent Flows Over Ribs of Various Aspect Ratio. , 2014, , .		0
71	Effects of Gap Ratio on Flow Past a Square Cylinder. , 2014, , .		0
72	Low Reynolds Number Effect on Open Channel Flow Over a Rib. , 2014, , .		0

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73	An Experimental Study of Surface-Mounted Bluff Bodies Immersed in Deep Turbulent Boundary Layers. , 2018, , .		0
74	Nozzle Orientation Effects on the Turbulent Structure of Submerged Twin Jets. , 2018, , .		0
75	Effects of Offset Height on the Turbulent Characteristics of Rectangular Twin Jets. , 2018, , .		0
76	Influence of Leading Edge and Spacing on the Near Wake of Cylinder Pairs. , 2009, , .		0
77	Three-Dimensional Laminar Wall Jet Flows. , 2009, , .		0
78	Experimental Study of Turbulent Flow in Two-Dimensional Porous Media. , 2009, , .		0
79	Experimental Study of Three-Dimensional Laminar Wall Jets of Non-Newtonian Fluid. , 2009, , .		0
80	Roughness Effect Downstream of Flow Over a Forward Facing Step. , 2014, , .		0