

# Comparison between rough- and smooth-wall turbulence

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Citation Report

#	ARTICLE	IF	CITATIONS
1	Scaling of the bursting period in turbulent rough wall boundary layers. Experiments in Fluids, 1993, 15, 82-84.	1.1	15
2	The use of orthogonal X-wire arrays for structure investigation in a turbulent boundary layer. Experiments in Fluids, 1993, 15-15, 231-239.	1.1	2
3	Spectral scaling in a high reynolds number laboratory boundary layer. Boundary-Layer Meteorology, 1993, 65, 289-306.	1.2	28
4	Fluvial geomorphology. Progress in Physical Geography, 1994, 18, 588-608.	1.4	0
5	Conditional Reynolds stress on a V-grooved surface. Physics of Fluids, 1994, 6, 2101-2117.	1.6	10
6	Quadrant analysis in a heated wall supersonic boundary layer. Physics of Fluids, 1994, 6, 4031-4041.	1.6	10
7	Behaviour of the Reynolds stress on rough walls. Experiments in Fluids, 1994, 17, 39-44.	1.1	9
8	Structure of turbulent boundary layers on smooth and rough walls. Journal of Fluid Mechanics, 1994, 277, 1-21.	1.4	192
9	A turbulent equilibrium boundary layer near separation. Journal of Fluid Mechanics, 1994, 272, 319-348.	1.4	227
10	Uniform flow in open channels with movable gravel bed. Journal of Hydraulic Research/De Recherches Hydrauliques, 1994, 32, 861-876.	0.7	131
11	Turbulent Drag Reduction in a d-Type Rough Wall Boundary Layer with Longitudinal Thin Ribs Placed within the Transverse Grooves. Higher-Order Moments and Conditional Sampling Analysis.. 880-02 Nihon Kikai Gakkai RonbunshÅ« Transactions of the Japan Society of Mechanical Engineers Series B B-hen, 1994, 60, 3264-3271.	0.2	0
12	Anisotropy of the Reynolds stresses in a turbulent boundary layer on a rough wall. Experiments in Fluids, 1995, 18, 213-215.	1.1	47
13	Influence of a strong adverse pressure gradient on the turbulent structure in a boundary layer. Physics of Fluids, 1995, 7, 2014-2024.	1.6	94
14	Low-wavenumber spectral characteristics of velocity and temperature in the atmospheric surface layer. Journal of Geophysical Research, 1995, 100, 14243.	3.3	68
15	On transition over surface roughnesses. , 1996, , .		3
16	Turbulent Convection over Rough Surfaces. Physical Review Letters, 1996, 76, 908-911.	2.9	98
17	Turbulent Drag Reduction in a d-Type Rough Wall Boundary Layer with Longitudinal Thin Ribs Placed within Traverse Grooves. (Higher-Order Moments and Conditional Sampling Analysis).. JSME International Journal Series B, 1996, 39, 461-469.	0.3	4
18	Small-scale characteristics of a turbulent boundary layer over a rough wall. Journal of Fluid Mechanics, 1997, 342, 263-293.	1.4	39

#	ARTICLE	IF	CITATIONS
19	Effect of Roughness Aspect Ratio on the "Bursting" Period in a Fully Turbulent Channel Flow. Journal of Fluids Engineering, Transactions of the ASME, 1997, 119, 469-471.	0.8	1
20	The effect of surface roughness on flow structures in a neutrally stratified planetary boundary layer flow. Physics of Fluids, 1997, 9, 3235-3249.	1.6	45
21	Acoustic Velocity Profiler for Laboratory and Field Studies. Journal of Hydraulic Engineering, 1997, 123, 1089-1098.	0.7	101
22	THE EJECTION-SWEEP CHARACTER OF SCALAR FLUXES IN THE UNSTABLE SURFACE LAYER. Boundary-Layer Meteorology, 1997, 83, 1-26.	1.2	125
23	An analysis of the characteristics of rough bed turbulent shear stresses in an open channel. Stochastic Hydrology & Hydraulics, 1997, 11, 193-210.	0.5	32
24	Heat flux measurements in a turbulent boundary layer on a rough wall. International Journal of Heat and Mass Transfer, 1997, 40, 2989-2993.	2.5	3
25	A Theoretical and Experimental Investigation of Energy-Containing Scales in the Dynamic Sublayer of Boundary-Layer Flows. Boundary-Layer Meteorology, 1998, 86, 279-312.	1.2	99
26	Effects of a pebble cluster on the turbulent structure of a depth-limited flow in a gravel-bed river. Geomorphology, 1998, 25, 249-267.	1.1	145
27	Flow past a two- or three-dimensional steep-edged roughness. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 1998, 454, 31-69.	1.0	17
28	Anisotropy Invariants of Reynolds Stress Tensor in a Duct Flow and Turbulent Boundary Layer. Journal of Fluids Engineering, Transactions of the ASME, 1998, 120, 280-284.	0.8	19
29	The Effect of Biofilms on Turbulent Boundary Layers. Journal of Fluids Engineering, Transactions of the ASME, 1999, 121, 44-51.	0.8	88
31	The turbulent boundary layer over transverse square cavities. Journal of Fluid Mechanics, 1999, 395, 271-294.	1.4	136
32	Small scale intermittency in a rough wall turbulent boundary layer. Experiments in Fluids, 1999, 26, 145-152.	1.1	5
33	Surface roughness effects in turbulent boundary layers. Experiments in Fluids, 1999, 27, 450-460.	1.1	402
34	Wall Similarity in Turbulent Open-Channel Flow. Journal of Engineering Mechanics - ASCE, 1999, 125, 789-796.	1.6	62
35	Transition of free disturbances in inflectional flow over an isolated surface roughness. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 1999, 455, 491-541.	1.0	11
37	Comparison and Scaling of the Bursting Period in Rough and Smooth Walls Channel Flows. Journal of Fluids Engineering, Transactions of the ASME, 1999, 121, 735-746.	0.8	9
38	Rough Wall Turbulent Boundary Layers in Shallow Open Channel Flow. Journal of Fluids Engineering, Transactions of the ASME, 2000, 122, 533-541.	0.8	120

#	ARTICLE	IF	CITATIONS
39	Turbulent Boundary Layers on Surfaces Covered With Filamentous Algae. <i>Journal of Fluids Engineering, Transactions of the ASME</i> , 2000, 122, 357-363.	0.8	46
40	Velocity and temperature scaling in a rough wall boundary layer. <i>Physical Review E</i> , 2000, 62, 640-646.	0.8	12
41	Flattened Residue Effects on Wind Speed and Sediment Transport. <i>Soil Science Society of America Journal</i> , 2000, 64, 852-858.	1.2	17
42	Surface Roughness Effects in Near-Bed Turbulence: Implications to Sediment Entrainment. <i>Journal of Engineering Mechanics - ASCE</i> , 2001, 127, 211-218.	1.6	175
44	Particle image velocimetry measurements of flow over a wavy wall. <i>Physics of Fluids</i> , 2001, 13, 3504-3507.	1.6	74
45	Turbulence Characteristics and Dissipation Estimates in the Coastal Ocean Bottom Boundary Layer from PIV Data. <i>Journal of Physical Oceanography</i> , 2001, 31, 2108-2134.	0.7	166
46	Application of power laws to low Reynolds number boundary layers on smooth and rough surfaces. <i>Physics of Fluids</i> , 2001, 13, 3277-3284.	1.6	45
47	Turbulence structure in boundary layers over different types of surface roughness. <i>Fluid Dynamics Research</i> , 2001, 28, 139-157.	0.6	139
48	Turbulence structure over a particle roughness. <i>International Journal of Multiphase Flow</i> , 2001, 27, 673-683.	1.6	11
49	Self-preservation of rough-wall turbulent boundary layers. <i>European Journal of Mechanics, B/Fluids</i> , 2001, 20, 591-602.	1.2	31
50	Three-dimensional flow structure around small-scale bedforms in a simulated gravel-bed environment. <i>Earth Surface Processes and Landforms</i> , 2001, 26, 507-522.	1.2	82
51	Open Channel Boundary Layer Relaxation Behind a Forward Facing Step at Low Reynolds Numbers. <i>Journal of Fluids Engineering, Transactions of the ASME</i> , 2001, 123, 539-544.	0.8	28
52	Spray Generation from Turbulent Plane Water Wall Jets Discharging into Quiescent Air. <i>AIAA Journal</i> , 2001, 39, 1217-1229.	1.5	7
53	Velocity distribution in decelerating flow over rough surfaces. <i>Canadian Journal of Civil Engineering</i> , 2002, 29, 211-221.	0.7	23
54	The Effects of Surface Roughness on the Mean Velocity Profile in a Turbulent Boundary Layer. <i>Journal of Fluids Engineering, Transactions of the ASME</i> , 2002, 124, 664-670.	0.8	33
55	Large-Eddy Simulation of Rough-Wall Turbulent Boundary Layers. <i>AIAA Journal</i> , 2002, 40, 2127-2130.	1.5	25
56	Surface Roughness Effects on Turbulent Boundary Layer Structures. <i>Journal of Fluids Engineering, Transactions of the ASME</i> , 2002, 124, 127-135.	0.8	95
57	The Relationship Between Frictional Resistance and Roughness for Surfaces Smoothed by Sanding. <i>Journal of Fluids Engineering, Transactions of the ASME</i> , 2002, 124, 492-499.	0.8	45

#	ARTICLE	IF	CITATIONS
58	Suspension and turbulence modification effects of solid particulates on a horizontal turbulent channel flow. <i>Journal of Turbulence</i> , 2002, 3, N19.	0.5	96
59	Some dynamical properties of a differential model for the bursting cycle in the near-wall turbulence. <i>Physics of Fluids</i> , 2002, 14, 4278-4283.	1.6	1
60	Rough Wall Boundary Layer on Plates in Open Channels. <i>Journal of Hydraulic Engineering</i> , 2002, 128, 947-951.	0.7	35
61	Friction velocity and power law velocity profile in smooth and rough shallow open channel flows. <i>Canadian Journal of Civil Engineering</i> , 2002, 29, 256-266.	0.7	17
62	Stochastic Incipient Motion Criterion for Spheres under Various Bed Packing Conditions. <i>Journal of Hydraulic Engineering</i> , 2002, 128, 369-380.	0.7	184
63	The effects of wall roughness on the separated flow over a smoothly contoured ramp. <i>Experiments in Fluids</i> , 2002, 33, 38-46.	1.1	43
64	Low Reynolds number effects in open-channel turbulent boundary layers. <i>Experiments in Fluids</i> , 2003, 34, 616-624.	1.1	20
65	Roughness effects in low- $Re$ open-channel turbulent boundary layers. <i>Experiments in Fluids</i> , 2003, 35, 338-346.	1.1	61
66	Influence of a wavy boundary on turbulence.. <i>Experiments in Fluids</i> , 2003, 35, 422-436.	1.1	28
67	Stability characteristics of the virtual boundary method in three-dimensional applications. <i>Journal of Computational Physics</i> , 2003, 184, 559-591.	1.9	46
68	Large-eddy simulation of turbulent flow in a channel with rib roughness. <i>International Journal of Heat and Fluid Flow</i> , 2003, 24, 372-388.	1.1	161
69	Analysis of the small-scale structure of turbulence on smooth and rough walls. <i>Physics of Fluids</i> , 2003, 15, 35-46.	1.6	51
70	The Coriolis effect on coherent structures in planetary boundary layers. <i>Journal of Turbulence</i> , 2003, 4, .	0.5	20
71	Turbulent Boundary Layers Over Surfaces Smoothed by Sanding. <i>Journal of Fluids Engineering, Transactions of the ASME</i> , 2003, 125, 863-870.	0.8	87
72	Power laws for rough wall turbulent boundary layers. <i>Physics of Fluids</i> , 2003, 15, 1396.	1.6	18
73	Surface roughness effects on turbulent boundary layers on a flat plate located in an open channel / Effets de la rugosité de surface sur les couches limites turbulentes d'une plaque plane située dans un canal ouvert. <i>Journal of Hydraulic Research/De Recherches Hydrauliques</i> , 2004, 42, 247-261.	0.7	2
74	Effects of Wall Roughness on Particle Velocities in a Turbulent Channel Flow. <i>Journal of Fluids Engineering, Transactions of the ASME</i> , 2004, 127, 250.	0.8	47
75	Effects of Surface Finish on Aerodynamic Performance of a Sailboat Centerboard. <i>Journal of Aircraft</i> , 2004, 41, 1073-1081.	1.7	2

#	ARTICLE	IF	CITATIONS
76	Study of the motions contributing to the Reynolds stress in high and low Reynolds number turbulent boundary layers. <i>Physics of Fluids</i> , 2004, 16, 4586-4600.	1.6	42
77	Effects of Strong Irregular Roughness on the Turbulent Boundary Layer. <i>Flow, Turbulence and Combustion</i> , 2004, 72, 349-368.	1.4	15
78	Effect of Roughness on Wall-Bounded Turbulence. <i>Flow, Turbulence and Combustion</i> , 2004, 72, 463-492.	1.4	154
79	Large-Eddy Simulation of Turbulent Flow Over a Rough Surface. <i>Boundary-Layer Meteorology</i> , 2004, 111, 417-440.	1.2	31
80	Simulation of Ekman Boundary Layers by Large Eddy Model with Dynamic Mixed Subfilter Closure. <i>Environmental Fluid Mechanics</i> , 2004, 4, 273-303.	0.7	60
81	Structure of turbulent channel flow with square bars on one wall. <i>International Journal of Heat and Fluid Flow</i> , 2004, 25, 384-392.	1.1	116
82	A velocity dependent effective angle method for calibration of X-probes at low velocities. <i>Experiments in Fluids</i> , 2004, 37, 146-152.	1.1	6
83	Outer flow scaling of smooth and rough wall turbulent boundary layers. <i>Experiments in Fluids</i> , 2004, 37, 604-612.	1.1	40
84	DNS of turbulent flow in a rod-roughened channel. <i>International Journal of Heat and Fluid Flow</i> , 2004, 25, 373-383.	1.1	110
85	Parameters controlling roughness effects in a separating boundary layer. <i>International Journal of Heat and Fluid Flow</i> , 2004, 25, 444-450.	1.1	21
86	Conditional statistics of the Reynolds stress in the under-ice boundary layer. <i>Geophysical Research Letters</i> , 2004, 31, .	1.5	22
87	Surface roughness effects on turbulent boundary layers on a flat plate located in an open channel. <i>Journal of Hydraulic Research/De Recherches Hydrauliques</i> , 2004, 42, 247-261.	0.7	6
88	Size, shape and dynamics of large-scale turbulent flow structures in a gravel-bed river. <i>Journal of Fluid Mechanics</i> , 2004, 500, 1-27.	1.4	226
89	TURBULENT FLOWS OVER ROUGH WALLS. <i>Annual Review of Fluid Mechanics</i> , 2004, 36, 173-196.	10.8	1,168
90	Rough Surface Turbulent Boundary Layer: Part 2 The Composite Profiles. , 2004, , .		4
91	Roughness Effects on the Mixing Properties in Open Channel Turbulent Boundary Layers. <i>Journal of Fluids Engineering, Transactions of the ASME</i> , 2004, 126, 1025-1032.	0.8	20
92	Skin Friction Correlation for Smooth and Rough Wall Turbulent Boundary Layers. <i>Journal of Fluids Engineering, Transactions of the ASME</i> , 2005, 127, 1146-1153.	0.8	19
93	A Generalized Analytical Wall-Function for Turbulence (1st Report, A Flow Field Model for Smooth) Tj ETQq1 1 0.784314 rgBT /Overlook Mechanical Engineers Series B B-hen, 2005, 71, 2725-2733.	0.2	1

#	ARTICLE	IF	CITATIONS
94	Direct numerical simulation of lubricated channel flow. Fluid Dynamics Research, 2005, 37, 203-230.	0.6	5
95	Outer layer similarity in fully rough turbulent boundary layers. Experiments in Fluids, 2005, 38, 328-340.	1.1	141
96	The effect of bed roughness on scalar fluctuations in turbulent boundary layers. Experiments in Fluids, 2005, 38, 372-384.	1.1	47
97	Velocity measurements in a developed open channel flow in the presence of an upstream perturbation. Journal of Hydraulic Research/De Recherches Hydrauliques, 2005, 43, 258-266.	0.7	20
98	Experimental Investigation of the Turbulent Boundary Layer of Surfaces Coated With Marine Antifoulings. Journal of Fluids Engineering, Transactions of the ASME, 2005, 127, 219-232.	0.8	18
99	Reynolds number effects in the outer layer of the turbulent flow in a channel with rough walls. Physics of Fluids, 2005, 17, 065101.	1.6	93
100	An experimental and numerical study of channel flow with rough walls. Journal of Fluid Mechanics, 2005, 530, 327-352.	1.4	171
101	Inner and Outer Scalings in Rough Surface Turbulent Boundary Layers. , 2005, , .		1
102	Experimental support for Townsend's Reynolds number similarity hypothesis on rough walls. Physics of Fluids, 2005, 17, 035102.	1.6	239
103	Reynolds-Stress Enhancement Associated with a Short Fetch of Roughness in Wall Turbulence. , 2006, , .		0
104	Effects of Surface Roughness on Airframe Noise. , 2006, , .		10
105	Upstream Condition Effects on Rough Favorable Pressure Gradient Turbulent Boundary Layers. , 2006, , .		4
106	Assessment of Omega Based Models in the Prediction of Incompressible Turbulent Flows over Rough Surfaces. , 2006, , .		2
107	Effect of wall-boundary disturbances on turbulent channel flows. Journal of Fluid Mechanics, 2006, 566, 357.	1.4	110
108	The influence of wall permeability on turbulent channel flow. Journal of Fluid Mechanics, 2006, 562, 35.	1.4	269
109	Large-scale and very-large-scale motions in turbulent pipe flow. Journal of Fluid Mechanics, 2006, 554, 521.	1.4	427
110	Roughness effects in turbulent channel flow. Progress in Computational Fluid Dynamics, 2006, 6, 1.	0.1	19
111	THE TURBULENT ORGANIZED STRUCTURE OBSERVED OVER THE OUTDOOR URBAN SCALE MODEL EXPERIMENTS. Proceedings of Hydraulic Engineering, 2006, 50, 445-450.	0.0	1

#	ARTICLE	IF	CITATIONS
112	Self-preservation of a Turbulent Boundary Layer over d-type Roughness. <i>Journal of Fluid Science and Technology</i> , 2006, 1, 24-35.	0.2	4
113	Realization of the Turbulent Boundary Layer over the Rough Surface Satisfied the Conditions of Complete Similarity and Its Mean Flow Quantities. 880-02 Nihon Kikai Gakkai Ronbunshu Transactions of the Japan Society of Mechanical Engineers Series B B-hen, 2006, 72, 1166-1173.	0.2	1
114	The structure of turbulence in a rod-roughened channel. <i>International Journal of Heat and Fluid Flow</i> , 2006, 27, 65-79.	1.1	37
115	Open channel turbulent flow over hemispherical ribs. <i>International Journal of Heat and Fluid Flow</i> , 2006, 27, 1010-1027.	1.1	51
116	Effect of Roughness on Surface Boundary Conditions for Large-Eddy Simulation. <i>Boundary-Layer Meteorology</i> , 2006, 118, 169-187.	1.2	64
117	Large-Eddy Simulations on the Effects of Surface Geometry of Building Arrays on Turbulent Organized Structures. <i>Boundary-Layer Meteorology</i> , 2006, 118, 151-168.	1.2	163
118	Conditional analysis in a turbulent boundary layer with strong density differences. <i>Acta Mechanica</i> , 2006, 181, 207-229.	1.1	1
119	Velocity-defect scaling for turbulent boundary layers with a range of relative roughness. <i>Experiments in Fluids</i> , 2006, 40, 188-195.	1.1	64
120	An analytical wall-function for turbulent flows and heat transfer over rough walls. <i>International Journal of Heat and Fluid Flow</i> , 2006, 27, 852-866.	1.1	75
121	Wavy wall effects on turbulence production and large-scale modes. <i>Journal of Turbulence</i> , 2006, 7, N31.	0.5	27
122	Reynolds-Stress Enhancement Associated with a Short Fetch of Roughness in Wall Turbulence. <i>AIAA Journal</i> , 2006, 44, 3098-3106.	1.5	37
123	Application of proper orthogonal decomposition (POD) to investigate a turbulent boundary layer in a channel with rough walls. <i>Journal of Turbulence</i> , 2007, 8, N41.	0.5	20
124	Assessment of Two Low-Reynolds-Number k-e Models in Turbulent Boundary Layers with Surface Roughness. <i>Journal of Spacecraft and Rockets</i> , 2007, 44, 1307-1316.	1.3	11
125	Assessment of the Contribution of Surface Roughness to Airframe Noise. <i>AIAA Journal</i> , 2007, 45, 855-869.	1.5	27
126	Mini review: Hydrodynamics of larval settlement into fouling communities. <i>Biofouling</i> , 2007, 23, 357-368.	0.8	122
127	Wind Direction Dependence of Atmospheric Boundary Layer Turbulence Parameters in the Urban Roughness Sublayer. <i>Journal of Applied Meteorology and Climatology</i> , 2007, 46, 2086-2097.	0.6	12
128	Outer-layer similarity in the presence of a practical rough-wall topography. <i>Physics of Fluids</i> , 2007, 19, 085108.	1.6	129
129	Particle image velocimetry study of turbulent flow over transverse square ribs in an asymmetric diffuser. <i>Physics of Fluids</i> , 2007, 19, 065106.	1.6	20



#	ARTICLE	IF	CITATIONS
130	Inner and outer scalings in rough surface zero pressure gradient turbulent boundary layers. <i>Physics of Fluids</i> , 2007, 19, 065101.	1.6	41
131	Examination of a critical roughness height for outer layer similarity. <i>Physics of Fluids</i> , 2007, 19, .	1.6	171
132	Active and Passive Control of Spar Vortex-Induced Motions. <i>Journal of Offshore Mechanics and Arctic Engineering</i> , 2007, 129, 290-299.	0.6	0
133	Large- and very-large-scale motions in channel and boundary-layer flows. <i>Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences</i> , 2007, 365, 665-681.	1.6	347
134	Assessment of Two Low-Reynolds-Number k-e Models in Turbulent Boundary Layers with Surface Roughness. , 2007, , .		0
135	Upstream Condition Influence on Transitionally Rough Favorable Pressure Gradient Turbulent Boundary Layers (Invited). , 2007, , .		1
136	Turbulence Modifications in the Roughness Sublayer of Flow over a Highly-Irregular Surface Topology. , 2007, , .		1
137	Outer-Layer Similarity in the Presence of Highly-Irregular Surface Roughness. , 2007, , .		0
138	Near Wall Measurements in Smooth/Rough Turbulent Boundary Layers. , 2007, , .		2
139	Effect of surface roughness on the coefficients of a power law for the mean velocity in a turbulent boundary layer. <i>Journal of Turbulence</i> , 2007, 8, N18.	0.5	3
140	Effect of depth on flow over a fixed dune. <i>Canadian Journal of Civil Engineering</i> , 2007, 34, 1587-1599.	0.7	18
141	A Comparison of Real and Simulated Surface Roughness Characterizations. , 2007, , .		5
142	Emergence of coherent flow structures over a gravel surface: A numerical experiment. <i>Water Resources Research</i> , 2007, 43, .	1.7	49
143	Turbulence structure in rough- and smooth-wall boundary layers. <i>Journal of Fluid Mechanics</i> , 2007, 592, 263-293.	1.4	190
144	Structure of turbulent flow over regular arrays of cubical roughness. <i>Journal of Fluid Mechanics</i> , 2007, 589, 375-409.	1.4	228
145	Rough-wall boundary layers: mean flow universality. <i>Journal of Fluid Mechanics</i> , 2007, 585, 469-485.	1.4	159
146	Direct numerical simulation of the turbulent boundary layer over a rod-roughened wall. <i>Journal of Fluid Mechanics</i> , 2007, 584, 125-146.	1.4	110
147	The rough-wall turbulent boundary layer from the hydraulically smooth to the fully rough regime. <i>Journal of Fluid Mechanics</i> , 2007, 580, 381-405.	1.4	283

#	ARTICLE	IF	CITATIONS
148	Direct simulations of a rough-wall channel flow. <i>Journal of Fluid Mechanics</i> , 2007, 571, 235-263.	1.4	125
149	Statistical structure of turbulent-boundary-layer velocity-vorticity products at high and low Reynolds numbers. <i>Journal of Fluid Mechanics</i> , 2007, 570, 307-346.	1.4	57
150	Alternate Scales for Turbulent Flow in Transitional Rough Pipes: Universal Log Laws. <i>Journal of Fluids Engineering, Transactions of the ASME</i> , 2007, 129, 80-90.	0.8	10
151	Examination of anisotropy of the small-scale motion in a perturbed low Reynolds number turbulent boundary layer. <i>Experimental Thermal and Fluid Science</i> , 2007, 32, 309-315.	1.5	1
152	Influence of cover on mean column hydraulic characteristics in small pool riffle morphology streams. <i>River Research and Applications</i> , 2007, 23, 125-139.	0.7	18
153	Transitionally rough zero pressure gradient turbulent boundary layers. <i>Experiments in Fluids</i> , 2007, 44, 115-124.	1.1	29
154	The influence of wall heating on the flow structure in the near-wall region. <i>International Journal of Heat and Fluid Flow</i> , 2008, 29, 903-915.	1.1	10
155	Measurements in an urban-type boundary layer. <i>Experiments in Fluids</i> , 2008, 45, 141-156.	1.1	60
156	Sediment threshold under stream flow: A state-of-the-art review. <i>KSCE Journal of Civil Engineering</i> , 2008, 12, 45-60.	0.9	62
157	PIV measurements of turbulent boundary layer over a rod-roughened wall. <i>International Journal of Heat and Fluid Flow</i> , 2008, 29, 1679-1687.	1.1	20
158	Double-averaged velocity and stress distributions for hydraulically-smooth and transitionally-rough turbulent flows. <i>Acta Geophysica</i> , 2008, 56, 642-653.	1.0	14
159	IUTAM Symposium on Computational Physics and New Perspectives in Turbulence. <i>IUTAM Symposium on Cellular, Molecular and Tissue Mechanics</i> , 2008, , .	0.1	6
160	Surface Roughness Noise Prediction for Silent Aircraft eXperimental Design SAX-40. , 2008, , .		0
161	Highly Turbulent Freestream Over Rough Surface Turbulent Boundry Layers. , 2008, , .		0
162	Near-Wall Stereo PIV Investigation of the Turbulent Channel Flow Over Rough-Walls. , 2008, , .		0
163	Influence of the external conditions on transitionally rough favorable pressure gradient turbulent boundary layers. <i>Journal of Turbulence</i> , 2008, 9, N38.	0.5	12
164	Effects of Reynolds number and adverse pressure gradient on a turbulent boundary layer developing on a rough surface. <i>Journal of Turbulence</i> , 2008, 9, N43.	0.5	10
165	Revisiting turbulence in smooth uniform open channel flow. <i>Journal of Hydraulic Research/De Recherches Hydrauliques</i> , 2008, 46, 36-48.	0.7	38

#	ARTICLE	IF	CITATIONS
166	Favorable pressure gradient turbulent flow over straight and inclined ribs on both channel walls. <i>Physics of Fluids</i> , 2008, 20, .	1.6	19
167	Large Eddy Simulation of Turbulent Channel Flow with 3D Roughness Using a Roughness Element Model. <i>Chinese Physics Letters</i> , 2008, 25, 191-194.	1.3	8
168	Realization of the Turbulent Boundary Layer over the Rough Wall Satisfied the Conditions of Complete Similarity and Its Mean Flow Quantities. <i>Journal of Fluid Science and Technology</i> , 2008, 3, 31-42.	0.2	7
169	Alternate Scales for Turbulent Boundary Layer on Transitional Rough Walls: Universal Log Laws. <i>Journal of Fluids Engineering, Transactions of the ASME</i> , 2008, 130, .	0.8	3
170	Effect of Reynolds number, near-wall perturbation and turbulence on smooth open-channel flows. <i>Journal of Hydraulic Research/De Recherches Hydrauliques</i> , 2009, 47, 66-81.	0.7	24
171	Turbulent flow over rough walls. <i>Springer Proceedings in Physics</i> , 2009, , 381-388.	0.1	7
172	Effects of free-stream turbulence on rough surface turbulent boundary layers. <i>Journal of Fluid Mechanics</i> , 2009, 635, 207-243.	1.4	27
173	Reynolds Stress Anisotropy in Open-Channel Flow. <i>Journal of Hydraulic Engineering</i> , 2009, 135, 812-824.	0.7	13
174	Boundary-Layer Stress Instabilities in Neutral, Rotating Turbulent Flows. <i>Boundary-Layer Meteorology</i> , 2009, 130, 347-363.	1.2	5
175	Influence of adverse pressure gradient on rough-wall turbulent flows. <i>International Journal of Heat and Fluid Flow</i> , 2009, 30, 249-265.	1.1	15
176	Structure of the turbulent boundary layer over a rod-roughened wall. <i>International Journal of Heat and Fluid Flow</i> , 2009, 30, 1087-1098.	1.1	22
177	Coherent flow structures in a depth-limited flow over a gravel surface: The role of near-bed turbulence and influence of Reynolds number. <i>Journal of Geophysical Research</i> , 2009, 114, .	3.3	102
178	Adverse and Favourable Pressure Gradient Turbulent Flows Over Smooth and Rough Surfaces. , 2009, , .		0
179	Turbulent flow and organized motions over a two-dimensional rough wall. <i>Physics of Fluids</i> , 2009, 21, 125107.	1.6	2
180	Theoretical evaluation of the Reynolds shear stress and flow parameters in transitionally rough turbulent boundary Layers. <i>Journal of Turbulence</i> , 2009, 10, N5.	0.5	6
181	The rough favourable pressure gradient turbulent boundary layer. <i>Journal of Fluid Mechanics</i> , 2009, 641, 129-155.	1.4	26
182	Generalized Coles' law and outer layer conformal mapping. <i>Journal of Hydraulic Research/De Recherches Hydrauliques</i> , 2010, 48, 674-679.	0.7	5
183	Spatial structure of a turbulent boundary layer with irregular surface roughness. <i>Journal of Fluid Mechanics</i> , 2010, 655, 380-418.	1.4	174

#	ARTICLE	IF	CITATIONS
184	Turbulence structures over irregular rough surfaces. <i>Journal of Turbulence</i> , 2010, 11, N3.	0.5	29
185	Characterizing developing adverse pressure gradient flows subject to surface roughness. <i>Experiments in Fluids</i> , 2010, 48, 663-677.	1.1	12
186	Organized Structure of Active Turbulence Over an Array of Cubes within the Logarithmic Layer of Atmospheric Flow. <i>Boundary-Layer Meteorology</i> , 2010, 135, 209-228.	1.2	79
187	Numerical modelling of aeolian erosion over rough surfaces. <i>Earth Surface Processes and Landforms</i> , 2010, 35, 1418-1429.	1.2	18
188	Rough wall skin friction measurements using a high resolution surface balance. <i>International Journal of Heat and Fluid Flow</i> , 2010, 31, 429-433.	1.1	21
189	Effects of wall permeability on turbulence. <i>International Journal of Heat and Fluid Flow</i> , 2010, 31, 974-984.	1.1	99
190	Low-order representations of irregular surface roughness and their impact on a turbulent boundary layer. <i>Physics of Fluids</i> , 2010, 22, 015106.	1.6	76
191	Temporal scour evolution at bridge piers: effect of wood debris roughness and porosity. <i>Journal of Hydraulic Research/De Recherches Hydrauliques</i> , 2010, 48, 3-13.	0.7	59
192	Direct Numerical Simulation of Turbulent Flows in Rough Pipes Using an Immersed Boundary Method With a Spectral Representation of the Roughness Topography. , 2010, , .		0
193	The Impact of Low-Order Representations of Irregular Surface Roughness on Flow in the Roughness Sublayer. , 2010, , .		2
194	Velocity Profile and Flow Resistance Models for Developing Chute Flow. <i>Journal of Hydraulic Engineering</i> , 2010, 136, 447-452.	0.7	16
195	Toward Understanding Whether Superhydrophobic Surfaces Can Really Decrease Fluidic Friction Drag. <i>Langmuir</i> , 2010, 26, 6048-6052.	1.6	58
197	Coherent flow structures in a depth-limited flow over a gravel surface: The influence of surface roughness. <i>Journal of Geophysical Research</i> , 2010, 115, .	3.3	43
198	Effects of bed roughness on boundary layer mixing and mass flux across the sediment-water interface. <i>Water Resources Research</i> , 2010, 46, .	1.7	56
199	Roughness effects on turbulence characteristics in an open channel flow. <i>Canadian Journal of Civil Engineering</i> , 2010, 37, 1600-1612.	0.7	3
200	An experimental investigation of the near surface flow over air-water and air-solid interfaces. <i>Physics of Fluids</i> , 2010, 22, .	1.6	9
201	Extracting Globally Dominant Parameters of A Realistic Rough Surface Using Continuous Wavelets. , 2010, , .		0
202	Structure of Turbulent Boundary Layers and Surface Pressure Fluctuations with Sparse Roughness. , 2010, , .		1

#	ARTICLE	IF	CITATIONS
203	Structure of Turbulent Boundary Layers with Dense Roughness. , 2010, , .		0
204	Open channel flow recovery in the wake of a flat plate on rough beds. Canadian Journal of Civil Engineering, 2011, 38, 710-717.	0.7	0
205	Experimental Study of the Effects of Roughness on the Flow Structure in a Gravel-Bed Channel Using Particle Image Velocimetry. Journal of Hydrologic Engineering - ASCE, 2011, 16, 710-716.	0.8	9
206	Turbulence Statistics in a Rectangular Channel Flow with One Groove-Roughened Wall. , 2011, , .		2
207	By-pass transition of flat plate boundary layers on the surfaces near the limit of admissible roughness. Journal of Physics: Conference Series, 2011, 318, 032030.	0.3	8
208	An experimental analysis of canopy flows. Journal of Physics: Conference Series, 2011, 318, 072018.	0.3	1
209	Open channel flow past a train of rib roughness. Journal of Turbulence, 2011, 12, N28.	0.5	27
210	Similarity of the streamwise velocity component in very-rough-wall channel flow. Journal of Fluid Mechanics, 2011, 668, 174-201.	1.4	18
211	Velocity Profile for Developing Flow over Stepped Spillway. , 2011, , .		1
212	Direct numerical simulation of the turbulent boundary layer over a cube-roughened wall. Journal of Fluid Mechanics, 2011, 669, 397-431.	1.4	116
213	Power-law velocity profile in turbulent boundary layers: An integral reynolds-number dependent solution. Acta Geophysica, 2011, 59, 993-1012.	1.0	8
214	Experimental Investigation of Turbulent Momentum Transfer in a Neutral Boundary Layer over a Rough Surface. Boundary-Layer Meteorology, 2011, 138, 385-411.	1.2	6
215	Turbulence in rough-wall boundary layers: universality issues. Experiments in Fluids, 2011, 51, 313-326.	1.1	48
216	Very high Reynolds number boundary layers over 3D sparse roughness and obstacles: the mean flow. Experiments in Fluids, 2011, 51, 743-752.	1.1	5
217	Development of a turbulent boundary layer after a step from smooth to rough surface. Experiments in Fluids, 2011, 51, 1563-1575.	1.1	35
218	Numerical aspects of including wall roughness effects in the SST k- $\omega$ eddy-viscosity turbulence model. Computers and Fluids, 2011, 40, 299-314.	1.3	37
219	Turbulent boundary layers over permeable walls: scaling and near-wall structure. Journal of Fluid Mechanics, 2011, 687, 141-170.	1.4	116
220	Near-Bed Turbulence Characteristics at the Entrainment Threshold of Sediment Beds. Journal of Hydraulic Engineering, 2011, 137, 945-958.	0.7	100

#	ARTICLE	IF	CITATIONS
221	Near-wall turbulence statistics and flow structures over three-dimensional roughness in a turbulent channel flow. <i>Journal of Fluid Mechanics</i> , 2011, 667, 1-37.	1.4	107
222	Experimental Study of Noise Emitted by Circular Cylinders with Large Roughness. , 2012, , .		1
223	Vortex organization in a turbulent boundary layer overlying sparse roughness elements. <i>Journal of Hydraulic Research/De Recherches Hydrauliques</i> , 2012, 50, 465-481.	0.7	27
224	About turbulence statistics in the outer part of a boundary layer developing over two-dimensional surface roughness. <i>Physics of Fluids</i> , 2012, 24, .	1.6	38
225	Effect of Roughness in Lock Exchange Density Currents. , 2012, , .		0
226	On the generation of the mean velocity profile for turbulent boundary layers with pressure gradient under equilibrium conditions. <i>Aeronautical Journal</i> , 2012, 116, 569-598.	1.1	4
227	Coherent structures and associated subgrid-scale energy transfer in a rough-wall turbulent channel flow. <i>Journal of Fluid Mechanics</i> , 2012, 712, 92-128.	1.4	45
228	Some Measurements of Surface Drag in Urban-Type Boundary Layers at Various Wind Angles. <i>Boundary-Layer Meteorology</i> , 2012, 145, 407-422.	1.2	16
229	Turbulence in mobile-bed streams. <i>Acta Geophysica</i> , 2012, 60, 1547-1588.	1.0	100
230	Flow over rough mobile beds: Friction factor and vertical distribution of the longitudinal mean velocity. <i>Water Resources Research</i> , 2012, 48, .	1.7	27
231	Turbulent boundary layer measurements over flat surfaces coated by nanostructured marine antifoulings. <i>Experiments in Fluids</i> , 2012, 52, 1431-1448.	1.1	11
232	Experimental study of near-wall turbulent characteristics in an open-channel with gravel bed using an acoustic Doppler velocimeter. <i>Experiments in Fluids</i> , 2012, 52, 85-94.	1.1	19
233	Effects of two-dimensional V-shaped grooves on turbulent channel flow. <i>Experiments in Fluids</i> , 2012, 52, 315-328.	1.1	5
234	Turbulent boundary-layer structure of flows over freshwater biofilms. <i>Experiments in Fluids</i> , 2013, 54, 1.	1.1	13
235	DNS of a turbulent boundary layer with surface Roughness. <i>Journal of Fluid Mechanics</i> , 2013, 729, 603-637.	1.4	40
236	Mean force structure and its scaling in rough-wall turbulent boundary layers. <i>Journal of Fluid Mechanics</i> , 2013, 731, 682-712.	1.4	28
237	Outer-layer turbulence intensities in smooth- and rough-wall boundary layers. <i>Journal of Fluid Mechanics</i> , 2013, 727, 119-131.	1.4	46
238	Adverse pressure gradient turbulent flows over rough walls. <i>International Journal of Heat and Fluid Flow</i> , 2013, 39, 127-145.	1.1	13

#	ARTICLE	IF	CITATIONS
239	Wind chop and ship wakes determine hydrodynamic stresses on larvae settling on different microhabitats in fouling communities. <i>Marine Ecology - Progress Series</i> , 2013, 479, 47-62.	0.9	28
240	Effects of roughness and adverse pressure gradient on the turbulence structure. <i>International Journal of Heat and Fluid Flow</i> , 2013, 44, 239-257.	1.1	5
241	Surface roughness effects on the turbulence statistics in a low Reynolds number channel flow. <i>Journal of Turbulence</i> , 2013, 14, 121-146.	0.5	10
242	An experimental investigation of the frictional drag characteristics of nanostructured and fluorinated fouling-release coatings using an axisymmetric body. <i>Biofouling</i> , 2013, 29, 39-52.	0.8	16
243	Assessment of surface roughness for a "silent" aircraft. <i>Aeronautical Journal</i> , 2013, 117, 283-298.	1.1	3
245	Turbulence characteristics in an open channel flow over transitionally rough bed. <i>ISH Journal of Hydraulic Engineering</i> , 2014, 20, 169-176.	1.1	4
246	The Application of Wall Similarity Techniques to Determine Wall Shear Velocity in Smooth and Rough Wall Turbulent Boundary Layers. <i>Journal of Fluids Engineering, Transactions of the ASME</i> , 2014, 136, .	0.8	12
247	An experimental study of the flow through and over two dimensional rectangular roughness elements: Deductions for urban boundary layer parameterizations and exchange processes. <i>Physics of Fluids</i> , 2014, 26, .	1.6	33
248	Experimental investigation of the impacts of coherent flow structures upon turbulence properties in regions of crescentic scour. <i>Earth Surface Processes and Landforms</i> , 2014, 39, 995-1013.	1.2	47
249	Turbulent flow over the trough region formed by a pair of forward-facing bedform shapes. <i>European Journal of Mechanics, B/Fluids</i> , 2014, 46, 126-143.	1.2	22
250	Investigation of the scaling of roughness and blowing effects on turbulent channel flow. <i>Experiments in Fluids</i> , 2014, 55, 1.	1.1	12
251	Numerical simulations of sink-flow boundary layers over rough surfaces. <i>Physics of Fluids</i> , 2014, 26, 015113.	1.6	47
252	Use of PIV to highlight possible errors in hot-wire Reynolds stress data over a 2D rough wall. <i>Experiments in Fluids</i> , 2014, 55, 1.	1.1	3
253	Experimental study of noise emitted by circular cylinders with large roughness. <i>Journal of Sound and Vibration</i> , 2014, 333, 6474-6497.	2.1	11
254	Optimised mixing and flow resistance during shear flow over a rib roughened boundary. <i>International Communications in Heat and Mass Transfer</i> , 2014, 58, 54-62.	2.9	4
255	Experimental Study of Shallow Open Channel Turbulent Flows Over Rough Walls. , 2014, , .		0
256	Large-scale contribution to mean wall shear stress in high-Reynolds-number flat-plate boundary layers up to 13650. <i>Journal of Fluid Mechanics</i> , 2014, 743, 202-248.	1.4	92
257	A universal scaling for low-order structure functions in the log-law region of smooth- and rough-wall boundary layers. <i>Journal of Fluid Mechanics</i> , 2014, 752, 140-156.	1.4	25

#	ARTICLE	IF	CITATIONS
258	Spatio-Temporal Correlations of Hydrodynamic Forces on Particles in an Oscillatory Wall-Bounded Flow Environment. , 2015, , .		0
259	Characterization of flow turbulence in mobile boundary channels. ISH Journal of Hydraulic Engineering, 2015, 21, 179-192.	1.1	1
260	Scale-by-scale energy budget in a turbulent boundary layer over a rough wall. International Journal of Heat and Fluid Flow, 2015, 55, 2-8.	1.1	4
261	Turbulent boundary layer flow with a step change from smooth to rough surface. International Journal of Heat and Fluid Flow, 2015, 54, 39-54.	1.1	21
262	An experimental and numerical analysis of erosion caused by sand pneumatically conveyed through a standard pipe elbow. Wear, 2015, 336-337, 43-57.	1.5	125
263	Pressure Gradient Effects on Smooth and Rough Surface Turbulent Boundary Layers Part I: Favorable Pressure Gradient. Journal of Fluids Engineering, Transactions of the ASME, 2015, 137, .	0.8	18
264	DNS and LES of turbulent flow in a closed channel featuring a pattern of hemispherical roughness elements. International Journal of Heat and Fluid Flow, 2015, 53, 29-43.	1.1	32
265	Correlation of frictional drag and roughness length scale for transitionally and fully rough turbulent boundary layers. Ocean Engineering, 2015, 107, 283-298.	1.9	20
266	Structure of a turbulent flow through plane channels with smooth and rough walls: An analysis based on high resolution DNS results. Computers and Fluids, 2015, 107, 77-88.	1.3	28
267	Predetermined control of turbulent boundary layer by means of a piezoelectric oscillator. , 2016, , .		0
268	Particle-Resolved DNS to Study Spatio-Temporal Correlations of Hydrodynamic Forces on Particle-Bed in an Oscillatory Flow Environment. , 2016, , .		0
269	Effect of roughness on mean flow properties for turbulent boundary layer. Transactions of the JSME (in Japanese), 2016, 82, 16-00306-16-00306.	0.1	0
270	Evolutions of hairpin vortexes over a superhydrophobic surface in turbulent boundary layer flow. Physics of Fluids, 2016, 28, .	1.6	14
271	Influence of Inertial Particles on Turbulence Characteristics in Outer and Near Wall Flow as Revealed With High Resolution Particle Image Velocimetry. Journal of Fluids Engineering, Transactions of the ASME, 2016, 138, .	0.8	12
272	Comparison of turbulent boundary layers over smooth and rough surfaces up to high Reynolds numbers. Journal of Fluid Mechanics, 2016, 795, 210-240.	1.4	106
273	DNS study of particle-bed turbulence interactions in an oscillatory wall-bounded flow. Journal of Fluid Mechanics, 2016, 792, 232-251.	1.4	29
274	Turbulence characteristics of open channel flow over non-equilibrium 3-D mobile dunes. Sadhana - Academy Proceedings in Engineering Sciences, 2016, 41, 1019-1037.	0.8	3
275	On the evolution and form of coherent flow structures over a gravel bed: Insights from whole flow field visualization and measurement. Journal of Geophysical Research F: Earth Surface, 2016, 121, 1472-1493.	1.0	40



#	ARTICLE	IF	CITATIONS
276	Remote monitoring of volumetric discharge employing bathymetry determined from surface turbulence metrics. <i>Water Resources Research</i> , 2016, 52, 2178-2193.	1.7	32
277	Turbulent airflow above a full-scale macroporous material: Boundary layer characterization and conditional statistical analysis. <i>Experimental Thermal and Fluid Science</i> , 2016, 74, 390-403.	1.5	4
278	The effect of interfacial waves on the turbulence structure of stratified air/water pipe flow. <i>International Journal of Multiphase Flow</i> , 2016, 78, 104-116.	1.6	18
279	Conditionally Averaged Large-Scale Motions in the Neutral Atmospheric Boundary Layer: Insights for Aeolian Processes. <i>Boundary-Layer Meteorology</i> , 2017, 162, 21-41.	1.2	42
280	Fine structure of the production in low to medium Reynolds number wall turbulence. <i>Computers and Fluids</i> , 2017, 148, 82-102.	1.3	4
281	Estimating bed shear stress from remotely measured surface turbulent dissipation fields in open channel flows. <i>Water Resources Research</i> , 2017, 53, 1982-1996.	1.7	21
282	Prediction of plane-wise turbulent events to the Reynolds stress in a flow over scour-bed. <i>Environmetrics</i> , 2017, 28, e2442.	0.6	5
283	Turbulence over cube-mounted rough bed using spatiotemporal averaging approach. <i>Canadian Journal of Civil Engineering</i> , 2017, 44, 504-517.	0.7	17
284	Rough-wall turbulent boundary layers with constant skin friction. <i>Journal of Fluid Mechanics</i> , 2017, 818, 26-45.	1.4	9
285	Applicability of Taylor's hypothesis in rough- and smooth-wall boundary layers. <i>Journal of Fluid Mechanics</i> , 2017, 812, 398-417.	1.4	30
286	Experimental study on bursting events around a bar in physical model of a braided channel. <i>ISH Journal of Hydraulic Engineering</i> , 2017, 23, 63-70.	1.1	7
287	Reconsideration of the overlap region in smooth shallow open channel flows. <i>Canadian Journal of Civil Engineering</i> , 2017, 44, 161-173.	0.7	3
288	Turbulent flow characteristics in a rectangular channel under the influence of cube-mounted rough bed. <i>ISH Journal of Hydraulic Engineering</i> , 2017, 23, 167-176.	1.1	9
289	Remote determination of the velocity index and mean streamwise velocity profiles. <i>Water Resources Research</i> , 2017, 53, 7521-7535.	1.7	18
290	Turbulence characteristics of flow in an open channel with temporally varying mobile bedforms. <i>Journal of Hydrology and Hydromechanics</i> , 2017, 65, 35-48.	0.7	27
291	Numerical simulation of turbulent channel flow over a viscous hyper-elastic wall. <i>Journal of Fluid Mechanics</i> , 2017, 830, 708-735.	1.4	71
292	A wind tunnel study of flows over idealised urban surfaces with roughness sublayer corrections. <i>Theoretical and Applied Climatology</i> , 2017, 130, 305-320.	1.3	21
293	Acoustic Doppler velocimeter measurements of a submerged three-dimensional offset jet flow over rough surfaces. <i>Journal of Hydraulic Research/De Recherches Hydrauliques</i> , 2017, 55, 40-49.	0.7	4

#	ARTICLE	IF	CITATIONS
294	Surface Roughness Effect on Performance of an Electric Submersible Pump. , 2017, , .		1
295	Spatio-temporal analysis of hydrodynamic forces on the particle bed in an oscillatory flow environment. Journal of Fluid Mechanics, 2018, 841, 167-202.	1.4	6
296	Effects of surface roughness on a separating turbulent boundary layer. Journal of Fluid Mechanics, 2018, 841, 552-580.	1.4	45
297	Multidisciplinary Coupling Analysis and Design. , 2018, , 527-559.		0
298	Roughness effects on the second-order turbulence statistics in oscillatory flows. Computers and Fluids, 2018, 162, 160-170.	1.3	11
299	Extension of roughness noise to bluff bodies using the boundary element method. Journal of Sound and Vibration, 2018, 414, 318-337.	2.1	2
300	Turbulent Flow Over Large Roughness Elements: Effect of Frontal and Plan Solidity on Turbulence Statistics and Structure. Boundary-Layer Meteorology, 2018, 167, 99-121.	1.2	34
301	Numerical Study of Turbulent Channel Flow over Surfaces with Variable Spanwise Heterogeneities: Topographically-driven Secondary Flows Affect Outer-layer Similarity of Turbulent Length Scales. Flow, Turbulence and Combustion, 2018, 100, 1-17.	1.4	70
302	An experimental investigation into the surface and hydrodynamic characteristics of marine coatings with mimicked hull roughness ranges. Biofouling, 2018, 34, 1001-1019.	0.8	31
303	An alternative floating element design for skin-friction measurement of turbulent wall flows. Experiments in Fluids, 2018, 59, 1.	1.1	17
304	The spatial structure of the logarithmic region in very-high-Reynolds-number rough wall turbulent boundary layers. Journal of Fluid Mechanics, 2018, 857, 704-747.	1.4	42
305	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
306	Turbulence structure of non-uniform rough open channel flow. E3S Web of Conferences, 2018, 40, 05039.	0.2	1
307	Secondary motion in turbulent pipe flow with three-dimensional roughness. Journal of Fluid Mechanics, 2018, 854, 5-33.	1.4	61
308	On the Role of the Flow Permeability of Metal Foams on Trailing Edge Noise Reduction. , 2018, , .		10
309	Statistical discussions on skin frictional drag of turbulence over randomly distributed semi-spheres. International Journal of Advances in Engineering Sciences and Applied Mathematics, 2018, 10, 263-272.	0.7	9
310	Can a turbulent boundary layer become independent of the Reynolds number?. Journal of Fluid Mechanics, 2018, 851, 1-22.	1.4	14
311	Wind tunnel measurements of turbulent boundary layer flows over arrays of ribs and cubes. Geoscience Letters, 2018, 5, .	1.3	4

#	ARTICLE	IF	CITATIONS
312	Effect of aspect ratio on developing and developed narrow open channel flow with rough bed. Canadian Journal of Civil Engineering, 2018, 45, 780-794.	0.7	9
313	Fuzzy threshold for the initiation of sediment motion. Applied Soft Computing Journal, 2018, 72, 312-320.	4.1	10
314	Review Article: Advances in modeling of bed particle entrainment sheared by turbulent flow. Physics of Fluids, 2018, 30, .	1.6	55
315	Study of clay-sand network structures and its effect on river bank erosion: an experimental approach. Environmental Earth Sciences, 2019, 78, 1.	1.3	18
316	A new analytical model for dip modified velocity distribution in fully developed turbulent open channel flow. Canadian Journal of Civil Engineering, 2019, 46, 657-668.	0.7	10
317	Quantification of turbulent eddies in time-space and frequency domain for wave-current combined flow over side-wall roughness. Ocean Engineering, 2019, 186, 106080.	1.9	8
318	Effects of solid particles and wall roughness on turbulent boundary layer in a two-phase horizontal channel flow. Powder Technology, 2019, 353, 48-56.	2.1	6
319	Non-periodic phase-space trajectories of roughness-driven secondary flows in high- boundary layers and channels. Journal of Fluid Mechanics, 2019, 869, 27-84.	1.4	12
320	Heat transfer and flow characteristics in a rectangular channel with small scale vortex generators. International Journal of Heat and Mass Transfer, 2019, 138, 208-225.	2.5	15
321	Characteristics of large-scale and superstructure motions in a turbulent boundary layer overlying complex roughness. Journal of Turbulence, 2019, 20, 147-173.	0.5	10
322	Flow structure in large bedrock-channels: The example of macroturbulent rapids, lower Mekong River, Southeast Asia. Earth Surface Processes and Landforms, 2019, 44, 843-860.	1.2	7
323	Velocity scales in steady-nonuniform turbulent flows with low relative submergence. Environmental Fluid Mechanics, 2019, 19, 1025-1041.	0.7	7
324	Measurement of Transitional Surface Roughness Effects on Flat-Plate Boundary Layer Transition. Journal of Fluids Engineering, Transactions of the ASME, 2019, 141, .	0.8	10
325	CFD-based analysis for finding critical wall roughness on centrifugal pump at design and off-design conditions. Journal of the Brazilian Society of Mechanical Sciences and Engineering, 2019, 41, 1.	0.8	10
326	Experimental characterization of the turbulent boundary layer over a porous trailing edge for noise abatement. Journal of Sound and Vibration, 2019, 443, 537-558.	2.1	98
327	Effect of Sand Bed Deposits on the Characteristics of Turbulent Flow of Water in Horizontal Annuli. Journal of Fluids Engineering, Transactions of the ASME, 2019, 141, .	0.8	4
328	Experimental investigation of turbulent flow over surfaces of rigid and flexible roughness. Experimental Thermal and Fluid Science, 2019, 101, 263-275.	1.5	17
329	Recent advances in the numerical simulation of rough-wall boundary layers. Physics and Chemistry of the Earth, 2019, 113, 63-72.	1.2	15

#	ARTICLE	IF	CITATIONS
330	Advanced Numerical Methods in Foundation Engineering. Sustainable Civil Infrastructures, 2020, , .	0.1	0
331	Characteristics of the pressure fluctuations generated in turbulent boundary layers over rough surfaces. Journal of Fluid Mechanics, 2020, 883, .	1.4	9
332	Remote Estimation of Turbulence Intensity Variation in Open Channels. Journal of Hydraulic Engineering, 2020, 146, 04020062.	0.7	4
333	Automated terrain generation for precise atmospheric boundary layer simulation in the wind tunnel. Journal of Wind Engineering and Industrial Aerodynamics, 2020, 207, 104276.	1.7	20
334	Boundary layer turbulence statistics over transitionally rough marine fouling control coatings. Ocean Engineering, 2020, 217, 108032.	1.9	2
335	Effects of "in-service" conditions " mimicked hull roughness ranges and biofilms " on the surface and the hydrodynamic characteristics of foul-release type coatings. Biofouling, 2020, 36, 1-16.	0.8	1
336	Influence of Weak Bed-Load Transport on Mean Flow Characteristics over Immobile Smooth Bed Surface under Dynamic Equilibrium Flow Conditions. Water Resources Management, 2020, 34, 4959-4973.	1.9	2
337	Roughness Effects on Turbulence Characteristics in an Open Channel Flow. , 2020, , .		4
338	A DNS/URANS approach for simulating rough-wall turbulent flows. International Journal of Heat and Fluid Flow, 2020, 85, 108627.	1.1	2
339	Interactions between a shock and turbulent features in a Mach 2 compressible boundary layer. Journal of Fluid Mechanics, 2020, 893, .	1.4	9
340	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
341	Revisiting rough-wall turbulent boundary layers over sand-grain roughness. Journal of Fluid Mechanics, 2021, 911, .	1.4	8
342	Scale interactions in velocity and pressure within a turbulent boundary layer developing over a staggered-cube array. Journal of Fluid Mechanics, 2021, 910, .	1.4	7
343	Constrained large-eddy simulation of turbulent flow over rough walls. Physical Review Fluids, 2021, 6, .	1.0	5
344	Centrifugal Compressor Stall Control by the Application of Engineered Surface Roughness on Diffuser Shroud Using Numerical Simulations. Materials, 2021, 14, 2033.	1.3	5
345	The low-frequency pressure fluctuations of near-equilibrium turbulent boundary layers. Experiments in Fluids, 2021, 62, 1.	1.1	2
346	A review on turbulent flow over rough surfaces: Fundamentals and theories. International Journal of Thermofluids, 2021, 10, 100077.	4.0	126
347	Roughness-Length Model for Organized Rough Walls. Boundary-Layer Meteorology, 2021, 180, 435-455.	1.2	0

#	ARTICLE	IF	CITATIONS
348	Response of Reynolds stresses and scaling behavior of high-order structure functions to a water-worked gravel-bed surface and its implication on sediment transport. International Journal of Sediment Research, 2022, 37, 1-13.	1.8	3
349	Surface Roughness Impact on Boundary Layer Transition and Loss Mechanisms Over a Flat-Plate Under a Low-Pressure Turbine Pressure Gradient. Journal of Turbomachinery, 2022, 144, .	0.9	8
350	Constrained large-eddy simulation of turbulent flow over inhomogeneous rough surfaces. Theoretical and Applied Mechanics Letters, 2021, 11, 100229.	1.3	9
351	Complex Effects in Turbulent Flows. , 1999, , 471-727.		1
352	Direct Numerical Simulation and PIV Measurement of Turbulent Boundary Layer over a Rod-Roughened Wall. IUTAM Symposium on Cellular, Molecular and Tissue Mechanics, 2010, , 1-11.	0.1	1
353	THE EFFECT OF WALL ROUGHNESS ON AN OPEN CHANNEL BOUNDARY LAYER. , 2002, , 455-463.		2
354	Extending an Analytical Wall-Function for Turbulent Flows Over Rough Walls. , 2005, , 157-166.		3
355	Smooth- and rough-wall boundary layer structure from high spatial range particle image velocimetry. Physical Review Fluids, 2016, 1, .	1.0	14
356	Reynolds number and roughness effects on turbulent stresses in sandpaper roughness boundary layers. Physical Review Fluids, 2017, 2, .	1.0	11
357	Skewness and flatness factors of the longitudinal velocity derivative in wall-bounded flows. Physical Review Fluids, 2017, 2, .	1.0	13
358	Velocity asymmetry and turbulent transport closure in smooth- and rough-wall boundary layers. Physical Review Fluids, 2020, 5, .	1.0	13
359	Roughness effects on scalar transport. Physical Review Fluids, 2020, 5, .	1.0	6
360	Skin Friction Correlation in Open Channel Boundary Layers. Journal of Fluids Engineering, Transactions of the ASME, 2001, 123, 953-956.	0.8	8
361	Effect of different surface roughnesses on a turbulent boundary layer. Revista Brasileira De Ciencias Mecanicas/Journal of the Brazilian Society of Mechanical Sciences, 2000, 22, 1-15.	0.1	8
362	An experimental/numerical study of the turbulent boundary layer development along a surface with a sudden change in roughness. Revista Brasileira De Ciencias Mecanicas/Journal of the Brazilian Society of Mechanical Sciences, 2000, 22, 93-104.	0.1	1
363	THE TURBULENT BOUNDARY LAYER AND FRICTIONAL DRAG CHARACTERISTICS OF NEW GENERATION MARINE FOULING CONTROL COATINGS. Brodogradnja, 2019, 70, 51-65.	0.6	3
365	9 Analytical wall-functions of turbulence for complex surface flow phenomena. Developments in Heat Transfer, 2010, , 331-380.	0.1	3
367	Generation of a Turbulent Boundary Layer Using LES. Transactions of the Korean Society of Mechanical Engineers, B, 2007, 31, 680-687.	0.0	1

#	ARTICLE	IF	CITATIONS
368	Non-Equilibrium and Equilibrium Boundary Layers without Pressure Gradient. IUTAM Symposium on Cellular, Molecular and Tissue Mechanics, 2008, , 197-202.	0.1	0
369	Organized Structure of Turbulent Boundary Layer with Rod-roughened Wall. Transactions of the Korean Society of Mechanical Engineers, B, 2008, 32, 463-470.	0.0	0
370	Effects of Rod-roughened Wall on a Turbulent Boundary Layer. Transactions of the Korean Society of Mechanical Engineers, B, 2008, 32, 518-528.	0.0	0
371	Mean Flow and Turbulence over Rough Surfaces. Springer Proceedings in Physics, 2009, , 669-672.	0.1	0
372	Rough Wall Skin Friction Measurements Using a High Resolution Surface Balance. IUTAM Symposium on Cellular, Molecular and Tissue Mechanics, 2010, , 127-133.	0.1	0
373	Turbulent Statistics of the Turbulent Boundary Layer over a Cube-Roughened Wall. Transactions of the Korean Society of Mechanical Engineers, B, 2010, 34, 917-923.	0.0	0
374	Friction Loss of Rough Wall Passage in a Turbomachinery. , 1996, , 975-984.		0
376	Velocity Distribution in Developing Chute Flow. Journal of Information and Computational Science, 2014, 11, 4191-4201.	0.1	0
377	Decay of Pressure Fluctuation in the Hyporheic Zone around a Cylinder. World Journal of Mechanics, 2016, 06, 159-168.	0.1	0
378	Effects of Reynolds Number and Aspect Ratio on the Turbulence Characteristics in Developing and Fully Developed Flow Over a Rough Bed. Sustainable Civil Infrastructures, 2020, , 133-143.	0.1	0
379	Turbulent Structure in Rough and Smooth Wall Boundary Layers. , 2007, , 44-46.		1
380	Aerodynamic and heat transfer effects of distributed hemispherical roughness elements inducing step changes in a turbulent boundary layer. International Journal of Heat and Fluid Flow, 2020, 85, 108672.	1.1	1
381	On the turbulence characteristics in developed and developing rough narrow open-channel flow. Journal of Hydro-Environment Research, 2022, 40, 17-27.	1.0	2
382	Generation and characterization of fully developed state in open channel flow. Journal of Fluid Mechanics, 2022, 934, .	1.4	6
383	Turbulent boundary layer flow over regularly and irregularly arranged truncated cone surfaces. Journal of Fluid Mechanics, 2022, 933, .	1.4	13
384	Outer turbulent boundary layer similarities for different 2D surface roughnesses at matched Reynolds number. International Journal of Heat and Fluid Flow, 2022, 94, 108940.	1.1	5
385	Amplitude and wavelength scaling of sinusoidal roughness effects in turbulent channel flow at fixed. Journal of Fluid Mechanics, 2022, 937, .	1.4	5
386	Equilibrium and non-equilibrium turbulent boundary layers. Progress in Aerospace Sciences, 2022, 131, 100807.	6.3	29

#	ARTICLE	IF	CITATIONS
387	Theoretical and experimental investigations on swirling steam-water mixture flow in a circular channel with modified surface walls. Case Studies in Thermal Engineering, 2021, 28, 101644.	2.8	0
388	Momentum Flux in Turbulent Boundary Layers with Weakly Unstable Stratification. Journal of the Physical Society of Japan, 2022, 91, .	0.7	0
389	Turbulence and pressure fluctuations in rough wall boundary layers in pressure gradients. Experiments in Fluids, 2022, 63, .	1.1	3
390	LARGE-EDDY AND DIRECT SIMULATIONS OF SINK FLOWS OVER ROUGH WALLS. , 2013, , .		0
391	THE ROUGH-WALL TURBULENT BOUNDARY LAYER FROM THE HYDRAULICALLY SMOOTH TO THE FULLY ROUGH REGIME. , 2007, , .		0
392	Scaling of the roughness effects in turbulent flows over systematically-varied irregular rough surfaces. International Journal of Heat and Fluid Flow, 2023, 101, 109130.	1.1	3
393	PIV Measurements of Open-Channel Turbulent Flow under Unconstrained Conditions. Fluids, 2023, 8, 135.	0.8	1
405	Turbulence Measurement Over Rough and Smooth Bed in Open-Channel Flow. Lecture Notes in Mechanical Engineering, 2024, , 265-274.	0.3	0