

Bijoy Singha Mazumder

List of Publications by Year in descending order

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104
papers

1,864
citations

257357

24
h-index

360920

35
g-index

104
all docs

104
docs citations

104
times ranked

600
citing authors

#	ARTICLE	IF	CITATIONS
1	Effect of boundary reaction on solute dispersion in pulsatile flow through a tube. <i>Journal of Fluid Mechanics</i> , 1992, 239, 523.	1.4	108
2	Dispersion of contaminant in oscillatory flows. <i>Acta Mechanica</i> , 1988, 74, 107-122.	1.1	56
3	Influence of bridge pier shape on flow field and scour geometry. <i>International Journal of River Basin Management</i> , 2019, 17, 109-129.	1.5	54
4	Turbulence characteristics of flow region over a series of 2-D dune shaped structures. <i>Advances in Water Resources</i> , 2008, 31, 561-576.	1.7	51
5	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
6	Velocity and concentration profiles in uniform sediment-laden flow. <i>Applied Mathematical Modelling</i> , 2006, 30, 164-176.	2.2	45
7	Turbulence statistics of flow over isolated scalene and isosceles triangular-shaped bedforms. <i>Journal of Hydraulic Research/De Recherches Hydrauliques</i> , 2009, 47, 626-637.	0.7	45
8	An Exact Solution of Oscillatory Couette Flow in a Rotating System. <i>Journal of Applied Mechanics, Transactions ASME</i> , 1991, 58, 1104-1107.	1.1	41
9	Turbulence between two inline hemispherical obstacles under waveâ€™current interactions. <i>Advances in Water Resources</i> , 2016, 88, 32-52.	1.7	41
10	Size distributions of suspended particles in open channel flow over bed materials. <i>Environmetrics</i> , 2005, 16, 149-165.	0.6	40
11	Dispersion phenomena of reactive solute in a pulsatile flow of three-layer liquids. <i>Physics of Fluids</i> , 2017, 29, .	1.6	40
12	Magnetohydrodynamic Couette Flow and Heat Transfer in a Rotating System. <i>Journal of the Physical Society of Japan</i> , 1977, 42, 1034-1039.	0.7	39
13	Turbulence statistics of flow due to waveâ€™current interaction. <i>Flow Measurement and Instrumentation</i> , 2007, 18, 129-138.	1.0	39
14	Turbulence statistics of flow over scoured cohesive sediment bed around circular cylinder. <i>Advances in Water Resources</i> , 2012, 41, 18-28.	1.7	37
15	Grain size distribution in suspension from bed materials. <i>Sedimentology</i> , 1994, 41, 271-277.	1.6	33
16	Unsteady convective diffusion in a pulsatile flow through a channel. <i>Acta Mechanica</i> , 1999, 134, 1-16.	1.1	33
17	Influence of bed roughness on sediment suspension: experimental and theoretical studies. <i>Journal of Hydraulic Research/De Recherches Hydrauliques</i> , 2005, 43, 245-257.	0.7	33
18	On solute transport in oscillatory flow through an annular pipe with a reactive wall and its application to a catheterized artery. <i>Quarterly Journal of Mechanics and Applied Mathematics</i> , 2005, 58, 349-365.	0.5	33

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19	Effects of nonlinear chemical reactions on the transport coefficients associated with steady and oscillatory flows through a tube. <i>International Journal of Heat and Mass Transfer</i> , 2011, 54, 75-85.	2.5	31
20	Turbulence characteristics of flow over a series of $2\text{â€} bed forms in the presence of surface waves. Journal of Geophysical Research, 2010, 115, .$	3.3	30
21	Dispersion of reactive species with reversible and irreversible wall reactions. <i>Heat and Mass Transfer</i> , 2012, 48, 933-944.	1.2	28
22	Spatially-averaged turbulent flow over cubical roughness in wave-current co-existing environment. <i>Coastal Engineering</i> , 2016, 114, 77-85.	1.7	28
23	On contaminant dispersion in unsteady generalised Couette flow. <i>International Journal of Engineering Science</i> , 1999, 37, 1407-1423.	2.7	27
24	Grain-size distributions of bed load: Inferences from flume experiments using heterogeneous sediment beds. <i>Sedimentary Geology</i> , 2010, 223, 1-14.	1.0	25
25	Variations of bed elevations due to turbulence around submerged cylinder in sand beds. <i>Environmental Fluid Mechanics</i> , 2016, 16, 659-693.	0.7	24
26	Transport of a reactive solute in a pulsatile non-Newtonian liquid flowing through an annular pipe. <i>Journal of Engineering Mathematics</i> , 2019, 116, 1-22.	0.6	24
27	Effect of wall conductances on hydromagnetic flow and heat transfer in a rotating channel. <i>Acta Mechanica</i> , 1977, 28, 85-99.	1.1	22
28	On solute dispersion in pulsatile flow through a channel with absorbing walls. <i>International Journal of Non-Linear Mechanics</i> , 2005, 40, 69-81.	1.4	22
29	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
30	Investigations on undercutting processes of cohesive river bank. <i>Engineering Geology</i> , 2019, 252, 110-124.	2.9	22
31	Transport of reactive solutes in unsteady annular flow subject to wall reactions. <i>European Journal of Mechanics, B/Fluids</i> , 2009, 28, 411-419.	1.2	21
32	Distribution of eddy scales for wave current combined flow. <i>Applied Ocean Research</i> , 2017, 63, 170-183.	1.8	21
33	Turbulence in Rivers due to Navigation Traffic. <i>Journal of Hydraulic Engineering</i> , 1993, 119, 581-597.	0.7	20
34	Distribution of turbulent eddies behind a monopile for vortex lock-on condition due to wave current combined flow. <i>Coastal Engineering</i> , 2018, 131, 70-87.	1.7	20
35	Methods of computation of suspended load from bed materials and flow parameters. <i>Sedimentology</i> , 1981, 28, 781-791.	1.6	19
36	On the solute dispersion in a pipe of annular cross-section with absorption boundary. <i>ZAMM Zeitschrift Fur Angewandte Mathematik Und Mechanik</i> , 2005, 85, 422-430.	0.9	19

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37	On dispersion of settling particles from an elevated source in an open-channel flow. Journal of Computational and Applied Mathematics, 2006, 193, 22-37.	1.1	19
38	Contributions of burst-sweep cycles to Reynolds shear stress over fluvial obstacle marks generated in a laboratory flume. International Journal of Sediment Research, 2012, 27, 378-387.	1.8	19
39	Turbulence statistics of flow causing scour around circular and oblong piers. Journal of Hydraulic Research/De Recherches Hydrauliques, 2020, 58, 673-686.	0.7	19
40	Turbulence Statistics of Wave-Current Flow over a Submerged Cube. Journal of Waterway, Port, Coastal and Ocean Engineering, 2016, 142, .	0.5	18
41	Flow and heat transfer in the hydromagnetic ekman layer on a porous plate with hall effects. International Journal of Heat and Mass Transfer, 1976, 19, 523-527.	2.5	17
42	Experimentalâ€“theoretical approach to interpretation of grain size frequency distributions. , 1991, , 264-280.		17
43	Return Flow in Rivers due to Navigation Traffic. Journal of Hydraulic Engineering, 1995, 121, 914-918.	0.7	17
44	Dispersion in unsteady Couetteâ€“Poiseuille flows. International Journal of Engineering Science, 2008, 46, 1203-1217.	2.7	17
45	Hydrodynamic dispersion of reactive solute in a Hagenâ€“Poiseuille flow of a layered liquid. Chinese Journal of Chemical Engineering, 2017, 25, 862-873.	1.7	17
46	Turbulence over cube-mounted rough bed using spatiotemporal averaging approach. Canadian Journal of Civil Engineering, 2017, 44, 504-517.	0.7	17
47	Experimental Investigation of Undercut Mechanisms of River Bank Erosion Based on 3D Turbulence Characteristics. Environmental Processes, 2020, 7, 341-366.	1.7	17
48	On dispersion of solute in a hydromagnetic flow between two parallel plates with boundary absorption. Physics of Fluids, 2021, 33, .	1.6	17
49	Hall effects on combined free and forced convective hydromagnetic flow through a channel. International Journal of Engineering Science, 1976, 14, 285-292.	2.7	15
50	Turbulent flow characteristics and drag over 2-D forward-facing dune shaped structures with two different stoss-side slopes. Environmental Fluid Mechanics, 2014, 14, 617-645.	0.7	15
51	Dispersion of fine settling particles from an elevated source in an oscillatory turbulent flow. European Journal of Mechanics, B/Fluids, 2008, 27, 707-725.	1.2	14
52	Spacetime dynamics of bed forms due to turbulence around submerged bridge piers. Stochastic Environmental Research and Risk Assessment, 2015, 29, 995-1017.	1.9	14
53	Higher-order turbulence statistics of waveâ€“current flow over a submerged hemisphere. Fluid Dynamics Research, 2017, 49, 025504.	0.6	14
54	On transport of reactive solute in a pulsatile Casson fluid flow through an annulus. International Journal of Computer Mathematics, 2020, 97, 2303-2319.	1.0	14

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55	On solute dispersion from an elevated line source in an open-channel flow. <i>Journal of Engineering Mathematics</i> , 2001, 40, 197-209.	0.6	13
56	Sediment-induced stratification in turbulent open-channel flow. <i>Environmetrics</i> , 2005, 16, 673-686.	0.6	13
57	Turbulent flow field over fluvial obstacle marks generated in a laboratory flume. <i>International Journal of Sediment Research</i> , 2011, 26, 62-77.	1.8	13
58	Tidal rhythmites in offshore shale: A case study from the Palaeoproterozoic Chaibasa shale, eastern India and implications. <i>Marine and Petroleum Geology</i> , 2012, 30, 43-49.	1.5	13
59	On dispersion of solute in steady flow through a channel with absorption boundary: an application to sewage dispersion. <i>Theoretical and Computational Fluid Dynamics</i> , 2020, 34, 643-658.	0.9	13
60	Size distributions in suspension over sand-“pebble mixture: An experimental approach. <i>Sedimentary Geology</i> , 2011, 241, 3-12.	1.0	12
61	Dispersion of settling particles in oscillatory turbulent flow subject to deposition and re-entrainment. <i>European Journal of Mechanics, B/Fluids</i> , 2012, 31, 80-90.	1.2	12
62	Turbulence, suspension and downstream fining over a sand-gravel mixture bed. <i>International Journal of Sediment Research</i> , 2013, 28, 194-209.	1.8	12
63	Changes in turbulent flow structure over rough-bed under combined wave-current motions. <i>ISH Journal of Hydraulic Engineering</i> , 2016, 22, 305-313.	1.1	12
64	Higher-order moments with turbulent length-scales and anisotropy associated with flow over dune shapes in tidal environment. <i>Physics of Fluids</i> , 2018, 30, .	1.6	12
65	Turbulent oscillatory flow along unidirectional current over square ribs. <i>Canadian Journal of Civil Engineering</i> , 2018, 45, 248-262.	0.7	11
66	Combined effects of hall current and rotation on hydromagnetic flow over an oscillating porous plate. <i>International Journal of Engineering Science</i> , 1977, 15, 601-606.	2.7	10
67	Turbulence Over Chains of Hemispherical Ribs Under Waves in a Current. <i>Water Resources Research</i> , 2019, 55, 55-75.	1.7	10
68	An exact analysis of scalar transport in hydromagnetic flow between two parallel plates: a multi-scale approach. <i>Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences</i> , 2021, 477, .	1.0	10
69	Effects of bulk degradation and boundary absorption on dispersion of contaminant in wetland flow. <i>International Journal of Heat and Mass Transfer</i> , 2021, 179, 121669.	2.5	10
70	Effect of Surface Wave on Development of Turbulent Boundary Layer Over a Train of Rib Roughness. <i>Journal of Offshore Mechanics and Arctic Engineering</i> , 2019, 141, .	0.6	10
71	Dispersion of pollutants in an asymmetric flow through a channel. <i>International Journal of Engineering Science</i> , 1994, 32, 1501-1510.	2.7	9
72	Evaluation of the saltation process of bed materials by video imaging under altered bed roughness. <i>Earth Surface Processes and Landforms</i> , 2013, 38, 1339-1353.	1.2	8

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73	Size Distribution of Suspended Particles – Unimodality, Symmetry and Lognormality. , 1981, , 21-32.		8
74	NEAR-BED PARTICLE MOTION DUE TO TURBULENT FLOW USING IMAGE-PROCESSING TECHNIQUE. Journal of Flow Visualization and Image Processing, 2008, 15, 1-15.	0.3	8
75	Dispersion of solutes in combined free and forced convective flow through a channel. Acta Mechanica, 1979, 32, 211-216.	1.1	7
76	Contaminant dispersion from an elevated time-dependent source. Journal of Computational and Applied Mathematics, 2000, 126, 185-205.	1.1	7
77	Effectiveness of combinations of raft foundation with aprons as a protection measure against bridge pier scour. Sadhana - Academy Proceedings in Engineering Sciences, 2018, 43, 1.	0.8	6
78	Space time evolution of sand bed topography and associated flow turbulence: experiments with statistical analysis. Stochastic Environmental Research and Risk Assessment, 2018, 32, 501-525.	1.9	6
79	Dispersion in Oscillatory Couette Flow with Absorbing Boundaries. International Journal of Fluid Mechanics Research, 2008, 35, 475-492.	0.4	6
80	Unsteady convective diffusion in viscoelastic fluid flowing through a tube. International Journal of Non-Linear Mechanics, 1998, 33, 135-150.	1.4	5
81	Prediction of plane-wise turbulent events to the Reynolds stress in a flow over scour-bed. Environmetrics, 2017, 28, e2442.	0.6	5
82	Higher order turbulent flow characteristics of oscillatory flow over a wall-mounted obstacle. ISH Journal of Hydraulic Engineering, 2018, , 1-12.	1.1	5
83	Taylor diffusion in a falling film of a non-Newtonian liquid. International Journal of Heat and Mass Transfer, 1977, 20, 341-343.	2.5	4
84	Distribution of turbulent velocity fluctuations in a natural river. Journal of Hydraulic Research/De Recherches Hydrauliques, 1995, 33, 649-661.	0.7	4
85	Statistical characterization of circulation patterns and direction of turbulent flow over a waveform structure. Environmetrics, 2006, 17, 417-434.	0.6	4
86	Conditional statistics of Reynolds shear stress over obstacle marks. ISH Journal of Hydraulic Engineering, 2013, 19, 305-315.	1.1	4
87	Turbulence characteristics of wave-blocking phenomena. Applied Ocean Research, 2018, 75, 15-36.	1.8	4
88	Evolution of Scour and Velocity Fluctuations Due to Turbulence Around Cylinders. Springer Proceedings in Mathematics and Statistics, 2013, , 131-148.	0.1	4
89	Dispersion of contaminant in oscillatory flow through a pipe ? Computation of moments. Acta Mechanica, 1989, 80, 151-156.	1.1	3
90	Dispersion of reactive solute in liquid flowing through a tube. International Journal of Engineering Science, 1989, 27, 1203-1209.	2.7	3

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91	Hall effects on hydromagnetic falling liquid film. International Journal of Non-Linear Mechanics, 2001, 36, 1263-1267.	1.4	3
92	Saltation Layer of Particles in Water Flows Related to Transport Stage. Hydrology Research, 2003, 34, 343-360.	1.1	3
93	Turbulence Over a Pair of Submerged Hemispheres in Presence of Surface Waves and Following Current. Journal of Offshore Mechanics and Arctic Engineering, 2018, 140, .	0.6	3
94	Externally generated turbulence by a vertically oscillating grid plate and its impact on sediment transport rate. Coastal Engineering Journal, 2019, 61, 444-459.	0.7	3
95	Turbulent flow characteristics over forward-facing obstacle. Journal of Turbulence, 2021, 22, 141-179.	0.5	3
96	Turbulent flow characteristics responsible for current-induced scour around a complex pier. Canadian Journal of Civil Engineering, 2022, 49, 597-606.	0.7	3
97	Taylor diffusion for a natural convective flow through a vertical channel. International Journal of Engineering Science, 1981, 19, 771-777.	2.7	2
98	Unsteady free and forced convective diffusion. International Journal of Engineering Science, 1984, 22, 247-252.	2.7	2
99	Buoyancy effect on dispersion of a solute in a flow through a horizontal channel. Acta Mechanica, 1986, 58, 137-152.	1.1	2
100	VELOCITY AND CONCENTRATION DISTRIBUTIONS IN SEDIMENT-MIXED FLUID: AN APPROACH WITH MIXING LENGTH CONCEPT. ISH Journal of Hydraulic Engineering, 2006, 12, 21-29.	1.1	2
101	Suspension concentration due to combined wave-current flows over waveforms. ISH Journal of Hydraulic Engineering, 2017, 23, 319-330.	1.1	2
102	Dispersion of Reactive Species in Casson Fluid Flow. Indian Journal of Pure and Applied Mathematics, 2020, 51, 1451-1469.	0.3	2
103	Turbulence study over submerged obstacles on waves and currents combined flow. ISH Journal of Hydraulic Engineering, 2017, 23, 246-257.	1.1	1
104	CONTRIBUTIONS OF BURST-SWEEP CYCLES TO THE REYNOLDS SHEAR STRESS OVER THE WAVEFORM STRUCTURES. ISH Journal of Hydraulic Engineering, 2006, 12, 66-77.	1.1	0