

# Koeli Ghoshal

## List of Publications by Year in descending order

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47  
papers

675  
citations

623574

14  
h-index

642610

23  
g-index

49  
all docs

49  
docs citations

49  
times ranked

297  
citing authors

#	ARTICLE	IF	CITATIONS
1	Velocity and concentration profiles in uniform sediment-laden flow. <i>Applied Mathematical Modelling</i> , 2006, 30, 164-176.	2.2	45
2	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
3	Effect of particle concentration on sediment and turbulent diffusion coefficients in open-channel turbulent flow. <i>Environmental Earth Sciences</i> , 2016, 75, 1.	1.3	43
4	One-Dimensional velocity distribution in open channels using Renyi entropy. <i>Stochastic Environmental Research and Risk Assessment</i> , 2017, 31, 949-959.	1.9	42
5	An Analytical Model for Velocity Distribution and Dip-Phenomenon in Uniform Open Channel Flows. <i>International Journal of Fluid Mechanics Research</i> , 2012, 39, 381-395.	0.4	34
6	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
7	Effects of secondary current and stratification on suspension concentration in an open channel flow. <i>Environmental Fluid Mechanics</i> , 2014, 14, 1357-1380.	0.7	31
8	Two dimensional velocity distribution in open channels using Renyi entropy. <i>Physica A: Statistical Mechanics and Its Applications</i> , 2016, 450, 546-559.	1.2	30
9	Derivation of Rouse equation for sediment concentration using Shannon entropy. <i>Physica A: Statistical Mechanics and Its Applications</i> , 2017, 465, 494-499.	1.2	26
10	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
11	Hindered settling with an apparent particle diameter concept. <i>Advances in Water Resources</i> , 2013, 60, 178-187.	1.7	22
12	Hydrodynamic interaction in suspended sediment distribution of open channel turbulent flow. <i>Applied Mathematical Modelling</i> , 2017, 49, 630-646.	2.2	21
13	Hindered Settling Velocity in Particle-Fluid Mixture: A Theoretical Study Using the Entropy Concept. <i>Journal of Hydraulic Engineering</i> , 2017, 143, .	0.7	20
14	Grain-size distribution in suspension over a sand-gravel bed in open channel flow. <i>International Journal of Sediment Research</i> , 2014, 29, 184-194.	1.8	15
15	An explicit analytical expression for bed-load layer thickness based on maximum entropy principle. <i>Physics Letters, Section A: General, Atomic and Solid State Physics</i> , 2018, 382, 2297-2304.	0.9	15
16	Influence of secondary current on vertical concentration distribution in an open channel flow. <i>ISH Journal of Hydraulic Engineering</i> , 2013, 19, 88-96.	1.1	14
17	Vertical distribution of fluid velocity and suspended sediment in open channel turbulent flow. <i>Fluid Dynamics Research</i> , 2016, 48, 035501.	0.6	14
18	Semi-analytical solution for one-dimensional unsteady sediment transport model in open channel with concentration-dependent settling velocity. <i>Physica Scripta</i> , 2020, 95, 055204.	1.2	13

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19	An analytical model for bedload layer thickness. <i>Acta Mechanica</i> , 2014, 225, 701-714.	1.1	12
20	Semianalytical Solution for Simultaneous Distribution of Fluid Velocity and Sediment Concentration in Open-Channel Flow. <i>Journal of Engineering Mechanics - ASCE</i> , 2019, 145, .	1.6	12
21	Two-dimensional distribution of streamwise velocity in open channel flow using maximum entropy principle: Incorporation of additional constraints based on conservation laws. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2020, 361, 112738.	3.4	11
22	Effect of bed roughness on grain-size distribution in an open channel flow. <i>Journal of Hydro-Environment Research</i> , 2014, 8, 441-451.	1.0	10
23	Reinvestigation on mixing length in an open channel turbulent flow. <i>Acta Geophysica</i> , 2018, 66, 93-107.	1.0	10
24	Vertical Sediment Concentration Distribution in High-Concentrated Flows: An Analytical Solution Using Homotopy Analysis Method. <i>Communications in Theoretical Physics</i> , 2018, 70, 367.	1.1	10
25	Entropy-Based Modeling of Velocity Lag in Sediment-Laden Open Channel Turbulent Flow. <i>Entropy</i> , 2016, 18, 318.	1.1	9
26	Distribution of sediment concentration in debris flow using Rényi entropy. <i>Physica A: Statistical Mechanics and Its Applications</i> , 2019, 521, 267-281.	1.2	9
27	Mathematical model on grain-size distribution in suspension over sand-gravel bed. <i>Journal of Hydrology</i> , 2014, 511, 640-647.	2.3	8
28	A mathematical model on depth-averaged $\Omega^2$ -factor in open-channel turbulent flow. <i>Environmental Earth Sciences</i> , 2018, 77, 1.	1.3	8
29	Nonlinear Partial Differential Equation for Unsteady Vertical Distribution of Suspended Sediments in Open Channel Flows: Effects of Hindered Settling and Concentration-Dependent Mixing Length. <i>Journal of Engineering Mechanics - ASCE</i> , 2022, 148, .	1.6	8
30	Explicit formulation for suspended concentration distribution with near-bed particle deficiency. <i>Powder Technology</i> , 2014, 253, 429-437.	2.1	7
31	Renyi Entropy and Random Walk Hypothesis to Study Suspended Sediment Concentration. <i>Journal of Hydrologic Engineering - ASCE</i> , 2017, 22, .	0.8	7
32	Velocity lag between particle and liquid in sediment-laden open channel turbulent flow. <i>European Journal of Mechanics, B/Fluids</i> , 2016, 56, 130-142.	1.2	6
33	A mathematical model for type II profile of concentration distribution in turbulent flows. <i>Environmental Fluid Mechanics</i> , 2017, 17, 449-472.	0.7	6
34	Application of relative entropy theory to streamwise velocity profile in open-channel flow: effect of prior probability distributions. <i>Zeitschrift Fur Angewandte Mathematik Und Physik</i> , 2019, 70, 1.	0.7	6
35	On the role of Tsallis entropy index for velocity modelling in open channels. <i>Physica A: Statistical Mechanics and Its Applications</i> , 2020, 557, 124901.	1.2	6
36	Suspended Sediment Concentration and Discharge in Open Channels Using Rényi Entropy. <i>Journal of Hydrologic Engineering - ASCE</i> , 2018, 23, .	0.8	5

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37	Mathematical modelling of streamwise velocity profile in open channels using Tsallis entropy. Communications in Nonlinear Science and Numerical Simulation, 2021, 94, 105581.	1.7	5
38	An explicit expression for velocity profile in presence of secondary current and sediment in an open channel turbulent flow. Canadian Journal of Civil Engineering, 2021, 48, 52-61.	0.7	5
39	Application of homotopy analysis method to the determination of vertical sediment concentration distribution with shear-induced diffusivity. Engineering With Computers, 0, , 1.	3.5	5
40	Semianalytical Solution for Nonequilibrium Suspended Sediment Transport in Open Channels with Concentration-Dependent Settling Velocity. Journal of Hydrologic Engineering - ASCE, 2022, 27, .	0.8	5
41	Two-dimensional distribution of stream-wise mean velocity in turbulent flow with effect of suspended sediment concentration. Environmental Fluid Mechanics, 2022, 22, 133-158.	0.7	5
42	Effects of non-locality on unsteady nonequilibrium sediment transport in turbulent flows: A study using space fractional ADE with fractional divergence. Applied Mathematical Modelling, 2021, 96, 617-644.	2.2	4
43	Unsteady two-dimensional suspended sediment transport in open channel flow subject to deposition and re-entrainment. Journal of Engineering Mathematics, 2021, 126, 1.	0.6	3
44	Generalized non-equilibrium suspended sediment transport model with hindered settling effect for open channel flows. Journal of Hydrology, 2022, , 128145.	2.3	3
45	Concentration distribution in an open channel flow by observational approach. ISH Journal of Hydraulic Engineering, 2014, 20, 75-89.	1.1	1
46	Unique shapes of liquid bells as a function of flow parameters: A brief overview and some new results. European Journal of Mechanics, B/Fluids, 2015, 50, 98-109.	1.2	1
47	Theoretical modeling of suspended grain-size distribution in fluvial environment by stratification and secondary current approaches. Environmental Fluid Mechanics, 2017, 17, 591-613.	0.7	0