

Orencio Duran Vinent

List of Publications by Year in descending order

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Version: 2024-02-01

43
papers

2,326
citations

172457

29
h-index

265206

42
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48
all docs

48
docs citations

48
times ranked

1751
citing authors

#	ARTICLE	IF	CITATIONS
1	On aeolian transport: Grain-scale interactions, dynamical mechanisms and scaling laws. <i>Aeolian Research</i> , 2011, 3, 243-270.	2.7	227
2	Vegetation controls on the maximum size of coastal dunes. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2013, 110, 17217-17222.	7.1	211
3	Vegetation Against Dune Mobility. <i>Physical Review Letters</i> , 2006, 97, 188001.	7.8	134
4	Numerical simulation of turbulent sediment transport, from bed load to saltation. <i>Physics of Fluids</i> , 2012, 24, .	4.0	129
5	Barrier island bistability induced by biophysical interactions. <i>Nature Climate Change</i> , 2015, 5, 158-162.	18.8	111
6	Dune formation under bimodal winds. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2009, 106, 22085-22089.	7.1	98
7	The Physics of Sediment Transport Initiation, Cessation, and Entrainment Across Aeolian and Fluvial Environments. <i>Reviews of Geophysics</i> , 2020, 58, e2019RG000679.	23.0	97
8	A continuous model for sand dunes: Review, new developments and application to barchan dunes and barchan dune fields. <i>Earth Surface Processes and Landforms</i> , 2010, 35, 1591-1600.	2.5	78
9	Model for the genesis of coastal dune fields with vegetation. <i>Geomorphology</i> , 2011, 129, 215-224.	2.6	73
10	Exploring Marine and Aeolian Controls on Coastal Fore-dune Growth Using a Coupled Numerical Model. <i>Journal of Marine Science and Engineering</i> , 2019, 7, 13.	2.6	72
11	Interactions between barrier islands and backbarrier marshes affect island system response to sea level rise: Insights from a coupled model. <i>Journal of Geophysical Research F: Earth Surface</i> , 2014, 119, 2013-2031.	2.8	70
12	Origins of barchan dune asymmetry: Insights from numerical simulations. <i>Aeolian Research</i> , 2014, 12, 121-133.	2.7	66
13	A unified model of ripples and dunes in water and planetary environments. <i>Nature Geoscience</i> , 2019, 12, 345-350.	12.9	63
14	Constitutive relations for the isotropic deformation of frictionless packings of polydisperse spheres. <i>Comptes Rendus - Mecanique</i> , 2010, 338, 570-586.	2.1	61
15	Direct numerical simulations of aeolian sand ripples. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2014, 111, 15665-15668.	7.1	61
16	Evolutionary prisoner's dilemma in random graphs. <i>Physica D: Nonlinear Phenomena</i> , 2005, 208, 257-265.	2.8	60
17	Measurements and numerical simulations of the degree of activity and vegetation cover on parabolic dunes in north-eastern Brazil. <i>Geomorphology</i> , 2008, 102, 460-471.	2.6	49
18	Analysis of three-dimensional micro-mechanical strain formulations for granular materials: Evaluation of accuracy. <i>International Journal of Solids and Structures</i> , 2010, 47, 251-260.	2.7	49

#	ARTICLE	IF	CITATIONS
19	Bedforms in a turbulent stream: ripples, chevrons and antidunes. <i>Journal of Fluid Mechanics</i> , 2012, 690, 94-128.	3.4	45
20	Vegetation control allows autocyclic formation of multiple dunes on prograding coasts. <i>Geology</i> , 2016, 44, 559-562.	4.4	43
21	The Cessation Threshold of Nonsuspended Sediment Transport Across Aeolian and Fluvial Environments. <i>Journal of Geophysical Research F: Earth Surface</i> , 2018, 123, 1638-1666.	2.8	42
22	Unification of Aeolian and Fluvial Sediment Transport Rate from Granular Physics. <i>Physical Review Letters</i> , 2020, 124, 168001.	7.8	42
23	Lateral vegetation growth rates exert control on coastal foredune hummockiness and coalescing time. <i>Earth Surface Dynamics</i> , 2017, 5, 417-427.	2.4	41
24	Dissolution instability and roughening transition. <i>Journal of Fluid Mechanics</i> , 2017, 832, .	3.4	40
25	The dune size distribution and scaling relations of barchan dune fields. <i>Granular Matter</i> , 2009, 11, 7-11.	2.2	39
26	Micro-mechanical analysis of deformation characteristics of three-dimensional granular materials. <i>International Journal of Solids and Structures</i> , 2010, 47, 2234-2245.	2.7	34
27	Local Rheology Relation with Variable Yield Stress Ratio across Dry, Wet, Dense, and Dilute Granular Flows. <i>Physical Review Letters</i> , 2019, 123, 048001.	7.8	34
28	Vegetation and Induration as Sand Dunes Stabilizers. <i>Journal of Coastal Research</i> , 2008, 246, 1357-1368.	0.3	31
29	Modeling long-term salt marsh response to sea level rise in the sediment-deficient Plum Island Estuary, MA. <i>Limnology and Oceanography</i> , 2020, 65, 2142-2157.	3.1	30
30	Fluid forces or impacts: What governs the entrainment of soil particles in sediment transport mediated by a Newtonian fluid?. <i>Physical Review Fluids</i> , 2017, 2, .	2.5	30
31	Modeling transverse dunes with vegetation. <i>Physica A: Statistical Mechanics and Its Applications</i> , 2009, 388, 4205-4217.	2.6	22
32	Universal friction law at granular solid-gas transition explains scaling of sediment transport load with excess fluid shear stress. <i>Physical Review Fluids</i> , 2018, 3, .	2.5	22
33	Onset of runaway fragmentation of salt marshes. <i>One Earth</i> , 2021, 4, 506-516.	6.8	19
34	Investigating dune-building feedback at the plant level: Insights from a multispecies field experiment. <i>Earth Surface Processes and Landforms</i> , 2019, 44, 1734-1747.	2.5	18
35	The fluctuation energy balance in non-suspended fluid-mediated particle transport. <i>Physics of Fluids</i> , 2015, 27, 013303.	4.0	13
36	The Role of Ecomorphodynamic Feedbacks and Landscape Couplings in Influencing the Response of Barriers to Changing Climate. , 2018, , 305-336.		13

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37	Sand transport on Mars. <i>Computer Physics Communications</i> , 2009, 180, 609-611.	7.5	12
38	Coastal dynamics and adaptation to uncertain sea level rise: Optimal portfolios for salt marsh migration. <i>Journal of Environmental Economics and Management</i> , 2019, 98, 102262.	4.7	12
39	Mechanisms of Pond Expansion in a Rapidly Submerging Marsh. <i>Frontiers in Marine Science</i> , 2021, 8, .	2.5	9
40	Stochastic dynamics of barrier island elevation. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2021, 118, .	7.1	7
41	Simulating dune evolution on managed coastlines: Exploring management options with the Coastal Recovery from Storms Tool (CReST). <i>Shore and Beach</i> , 2019, , 36-43.	0.5	7
42	Probabilistic structure of events controlling the after-storm recovery of coastal dunes. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2021, 118, .	7.1	4
43	Reply to 'Bistability and the future of barrier islands'. <i>Nature Climate Change</i> , 2016, 6, 6-6.	18.8	2