

# Ioan Nistor

## List of Publications by Year in descending order

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Version: 2024-02-01

115  
papers

2,474  
citations

201575

27  
h-index

254106

43  
g-index

118  
all docs

118  
docs citations

118  
times ranked

1668  
citing authors

#	ARTICLE	IF	CITATIONS
1	The impact of the 26 December 2004 earthquake and tsunami on structures and infrastructure. <i>Engineering Structures</i> , 2006, 28, 312-326.	2.6	234
2	Experimental Investigation of Tsunami Impact on Free Standing Structures. <i>Coastal Engineering Journal</i> , 2010, 52, 43-70.	0.7	168
3	Smoothed-Particle Hydrodynamics Numerical Modeling of Structures Impacted by Tsunami Bores. <i>Journal of Waterway, Port, Coastal and Ocean Engineering</i> , 2014, 140, 66-81.	0.5	91
4	Experimental Modeling of Extreme Hydrodynamic Forces on Structural Models. <i>International Journal of Protective Structures</i> , 2012, 3, 477-505.	1.4	70
5	Classification of Tsunami and Evacuation Areas. <i>Natural Hazards</i> , 2013, 67, 365-386.	1.6	69
6	Performance of Structures in Indonesia during the December 2004 Great Sumatra Earthquake and Indian Ocean Tsunami. <i>Earthquake Spectra</i> , 2006, 22, 295-319.	1.6	68
7	Efficiency assessment of hydroelectric power plants in Canada: A multi criteria decision making approach. <i>Energy Economics</i> , 2014, 46, 112-121.	5.6	59
8	Review of the Kalman-type hydrological data assimilation. <i>Hydrological Sciences Journal</i> , 2016, 61, 2348-2366.	1.2	53
9	Numerical modeling of $30^\circ$ and $45^\circ$ inclined dense turbulent jets in stationary ambient. <i>Environmental Fluid Mechanics</i> , 2015, 15, 537-562.	0.7	51
10	Experimental Study of Tsunami-Like Waves Generated with a Vertical Release Technique on Dry and Wet Beds. <i>Journal of Waterway, Port, Coastal and Ocean Engineering</i> , 2018, 144, .	0.5	51
11	Experimental study on the hydrodynamic impact of tsunami-like waves against impervious free-standing buildings. <i>Coastal Engineering Journal</i> , 2018, 60, 180-199.	0.7	50
12	Tsunami-Driven Debris Motion and Loads: A Critical Review. <i>Frontiers in Built Environment</i> , 2017, 3, .	1.2	40
13	Tsunami loading of near-shoreline structures: a primer. <i>Canadian Journal of Civil Engineering</i> , 2009, 36, 1804-1815.	0.7	39
14	Tsunami-Induced Forces on Structures. , 2009, , 261-286.		39
15	The effects of the July 2005 catastrophic inundations in the Siret River's Lower Watershed, Romania. <i>Natural Hazards</i> , 2011, 57, 345-368.	1.6	39
16	Failure Mechanisms and Local Scour at Coastal Structures Induced by Tsunami. <i>Coastal Engineering Journal</i> , 2016, 58, 1640017-1-1640017-38.	0.7	39
17	Climate change impacts on extreme floods I: combining imperfect deterministic simulations and non-stationary frequency analysis. <i>Natural Hazards</i> , 2012, 61, 647-659.	1.6	38
18	Experimental Investigations of Debris Dynamics over a Horizontal Plane. <i>Journal of Waterway, Port, Coastal and Ocean Engineering</i> , 2017, 143, .	0.5	38

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19	How does hydrogen-based renewable energy change with economic development? Empirical evidence from 32 countries. <i>International Journal of Hydrogen Energy</i> , 2018, 43, 11629-11638.	3.8	36
20	Streamflow data assimilation in SWAT model using Extended Kalman Filter. <i>Journal of Hydrology</i> , 2015, 531, 671-684.	2.3	35
21	Experimental study on forces exerted on buildings with openings due to extreme hydrodynamic events. <i>Coastal Engineering</i> , 2018, 140, 72-86.	1.7	35
22	On the effect of bed condition on the development of tsunami-induced loading on structures using OpenFOAM. <i>Natural Hazards</i> , 2015, 76, 1335-1356.	1.6	34
23	Assessment of hydrodynamic impacts from tidal power lagoons in the Bay of Fundy. <i>International Journal of Marine Energy</i> , 2013, 1, 33-54.	1.8	33
24	Experimental analysis of debris motion due the obstruction from fixed obstacles in tsunami-like flow conditions. <i>Coastal Engineering</i> , 2016, 118, 35-49.	1.7	33
25	CFD modeling and analysis of the behavior of 30° and 45° inclined dense jets – new numerical insights. <i>Journal of Applied Water Engineering and Research</i> , 2016, 4, 112-127.	1.0	33
26	Probabilistic Investigation and Risk Assessment of Debris Transport in Extreme Hydrodynamic Conditions. <i>Journal of Waterway, Port, Coastal and Ocean Engineering</i> , 2018, 144, .	0.5	32
27	Numerical Modeling of the Impact with Structures of Tsunami Bores Propagating on Dry and Wet Beds Using the SPH Method. <i>International Journal of Protective Structures</i> , 2012, 3, 221-255.	1.4	27
28	Long Wave Flow Interaction with a Single Square Structure on a Sloping Beach. <i>Journal of Marine Science and Engineering</i> , 2015, 3, 821-844.	1.2	27
29	Experimental investigation of debris damming loads under transient supercritical flow conditions. <i>Coastal Engineering</i> , 2018, 139, 16-31.	1.7	27
30	The 2018 Sulawesi tsunami in Palu city as a result of several landslides and coseismic tsunamis. <i>Coastal Engineering Journal</i> , 2020, 62, 445-459.	0.7	26
31	EXPERIMENTAL AND NUMERICAL MODELING OF TSUNAMI LOADING ON STRUCTURES. <i>Coastal Engineering Proceedings</i> , 2011, 1, 2.	0.1	26
32	Impact and damage to structures during the 27 February 2010 Chile tsunami. <i>Canadian Journal of Civil Engineering</i> , 2013, 40, 750-758.	0.7	24
33	Simultaneous assimilation of in situ soil moisture and streamflow in the SWAT model using the Extended Kalman Filter. <i>Journal of Hydrology</i> , 2016, 543, 671-685.	2.3	23
34	Debris transport over a sloped surface in tsunami-like flow conditions. <i>Coastal Engineering Journal</i> , 2019, 61, 241-255.	0.7	23
35	Overtopping of Coastal Structures by Tsunami Waves. <i>Geosciences (Switzerland)</i> , 2017, 7, 121.	1.0	22
36	Finite element for the dynamic analysis of pipes subjected to water hammer. <i>Journal of Fluids and Structures</i> , 2020, 93, 102845.	1.5	22

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37	Entrainment and Transport Dynamics of Shipping Containers in Extreme Hydrodynamic Conditions. Coastal Engineering Journal, 2017, 59, 1750011-1-1750011-30.	0.7	21
38	Experimental Investigation of Debris-Induced Loading in Tsunami-Like Flood Events. Geosciences (Switzerland), 2017, 7, 74.	1.0	21
39	Numerical and field study of ship-induced waves along the St. Lawrence Waterway, Canada. Natural Hazards, 2010, 54, 605-621.	1.6	20
40	Climate change impacts on extreme floods II: improving flood future peaks simulation using non-stationary frequency analysis. Natural Hazards, 2012, 60, 715-726.	1.6	20
41	Application of acoustic tomography to reconstruct the horizontal flow velocity field in a shallow river. Water Resources Research, 2015, 51, 9665-9678.	1.7	20
42	Numerical modelling of coastal inundation from Cascadia Subduction Zone tsunamis and implications for coastal communities on western Vancouver Island, Canada. Natural Hazards, 2019, 98, 267-291.	1.6	20
43	Swing gate generated dam-break waves. Journal of Hydraulic Research/De Recherches Hydrauliques, 2019, 57, 675-687.	0.7	20
44	Artificial neural network for bedload estimation in alluvial rivers. Journal of Hydraulic Research/De Recherches Hydrauliques, 2009, 47, 223-232.	0.7	19
45	Optical Tracking of Floating Shipping Containers in a High-Velocity Flow. Coastal Engineering Journal, 2016, 58, 1650005-1-1650005-29.	0.7	19
46	An acoustic travel time method for continuous velocity monitoring in shallow tidal streams. Water Resources Research, 2013, 49, 4885-4899.	1.7	18
47	Numerical investigation of tsunami bore effects on structures, part I: drag coefficients. Natural Hazards, 2019, 96, 285-309.	1.6	18
48	CFD Modeling of Effluent Discharges: A Review of Past Numerical Studies. Water (Switzerland), 2020, 12, 856.	1.2	18
49	Tsunami evacuation simulation for the District of Tofino, Vancouver Island, Canada. International Journal of Disaster Risk Reduction, 2020, 48, 101573.	1.8	18
50	Using PTV through an embankment breach channel. Journal of Hydro-Environment Research, 2011, 5, 277-287.	1.0	17
51	Effectiveness of hard and soft tsunami countermeasures on loss of life under different population scenarios. International Journal of Disaster Risk Reduction, 2020, 45, 101491.	1.8	17
52	Improved bridge pier collar for reducing scour. International Journal of Sediment Research, 2022, 37, 37-46.	1.8	17
53	Numerical investigation of the influence of extreme hydrodynamic forces on the geometry of structures using OpenFOAM. Natural Hazards, 2017, 87, 213-235.	1.6	16
54	Large eddy simulation of extreme hydrodynamic forces on structures with mitigation walls using OpenFOAM. Natural Hazards, 2017, 85, 1689-1707.	1.6	16

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55	Hybrid Modeling for Design of a Novel Bridge Pier Collar for Reducing Scour. Journal of Hydraulic Engineering, 2021, 147, .	0.7	16
56	A corrected 3-D SPH method for breaking tsunami wave modelling. Natural Hazards, 2012, 60, 81-100.	1.6	14
57	Breach outflow characteristics of non-cohesive embankment dams subject to blast. Canadian Journal of Civil Engineering, 2013, 40, 243-253.	0.7	14
58	Tsunami design procedures for engineered buildings: a critical review. Proceedings of the Institution of Civil Engineers: Civil Engineering, 2018, 171, 166-178.	0.3	13
59	Effect of building overtopping on induced loads during extreme hydrodynamic events. Journal of Hydraulic Research/De Recherches Hydrauliques, 2020, 58, 289-304.	0.7	13
60	Research trends in carbon capture and storage: A comparison of China with Canada. International Journal of Greenhouse Gas Control, 2020, 97, 103018.	2.3	13
61	Numerical Analysis of Storm Surges on Canada's Western Arctic Coastline. Journal of Marine Science and Engineering, 2021, 9, 326.	1.2	13
62	Multiple Debris Impact Loads in Extreme Hydrodynamic Conditions. Journal of Waterway, Port, Coastal and Ocean Engineering, 2020, 146, 04019038.	0.5	12
63	Development of a Probabilistic Framework for Debris Transport and Hazard Assessment in Tsunami-Like Flow Conditions. Journal of Waterway, Port, Coastal and Ocean Engineering, 2020, 146, .	0.5	12
64	Engineering Lessons from September 28, 2018 Indonesian Tsunami: Scouring Mechanisms and Effects on Infrastructure. Journal of Waterway, Port, Coastal and Ocean Engineering, 2021, 147, .	0.5	12
65	NUMERICAL MODELING OF TSUNAMI-INDUCED HYDRODYNAMIC FORCES ON ONSHORE STRUCTURES USING SPH. Coastal Engineering Proceedings, 2012, , 81.	0.1	12
66	Impact and analysis of geotechnical processes on earthfill dam breaching. Natural Hazards, 2010, 55, 15-27.	1.6	10
67	Tsunami risk for Western Canada and numerical modelling of the Cascadia fault tsunami. Natural Hazards, 2012, 60, 149-159.	1.6	10
68	Experimental Study on Extreme Hydrodynamic Loading on Pipelines Part 2: Induced Force Analysis. Journal of Marine Science and Engineering, 2019, 7, 262.	1.2	10
69	Fate and transport of coastal driftwood: A critical review. Marine Pollution Bulletin, 2021, 170, 112649.	2.3	10
70	Post-Tsunami Engineering Forensics. , 2015, , 417-435.		10
71	Bridge Pier Scour under Ice Cover. Water (Switzerland), 2021, 13, 536.	1.2	9
72	Numerical Modeling of Venturi Flume. Hydrology, 2021, 8, 27.	1.3	8

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73	Inclined dense effluent discharge modelling in shallow waters. <i>Environmental Fluid Mechanics</i> , 2021, 21, 955-987.	0.7	8
74	Novel Riprap Structure for Improved Bridge Pier Scour Protection. <i>Journal of Hydraulic Engineering</i> , 2022, 148, .	0.7	8
75	Guest editorial: Paleotsunami. <i>Natural Hazards</i> , 2012, 63, 1-3.	1.6	7
76	Tsunami risk and impacts on coastlines. <i>Natural Hazards</i> , 2012, 60, 1-1.	1.6	7
77	Experimental Investigations on Hydrodynamic Characteristics of Tsunami-Like Hydraulic Bores Impacting a Square Structure. <i>Journal of Hydraulic Engineering</i> , 2022, 148, .	0.7	7
78	Evaluation of the Solid Boundary Treatment Methods in SPH. <i>International Journal of Ocean and Coastal Engineering</i> , 2018, 01, .	0.3	6
79	Pedestrian evacuation modelling of a Canadian West Coast community from a near-field Tsunami event. <i>Natural Hazards</i> , 2019, 98, 229-249.	1.6	6
80	Numerical investigation of tsunami bore effects on structures, part II: effects of bed condition on loading onto circular structures. <i>Natural Hazards</i> , 2019, 96, 331-351.	1.6	6
81	Robust control volume finite element methods for numerical wave tanks using extreme adaptive anisotropic meshes. <i>International Journal for Numerical Methods in Fluids</i> , 2020, 92, 1707-1722.	0.9	6
82	Experimental study of surface buoyant jets in crossflow. <i>Environmental Fluid Mechanics</i> , 2020, 20, 1007-1030.	0.7	6
83	Side-by-side entrainment and displacement of cuboids due to a tsunami-like wave. <i>Coastal Engineering</i> , 2021, 164, 103819.	1.7	6
84	Partitioned water hammer modeling using the block Gauss-Seidel algorithm. <i>Journal of Fluids and Structures</i> , 2021, 103, 103260.	1.5	6
85	EXPERIMENTAL INVESTIGATION OF THE IMPACT OF A TSUNAMI-INDUCED BORE ON STRUCTURES. , 2009, , .		5
86	Tide-driven controls on maximum near-bed floc size in a tidal estuary. <i>Journal of Hydro-Environment Research</i> , 2015, 9, 465-471.	1.0	5
87	Nature-Based Coastal Protection by Large Woody Debris as Compared to Seawalls: A Physical Model Study of Beach Morphology and Wave Reflection. <i>Water (Switzerland)</i> , 2021, 13, 2020.	1.2	5
88	Inter-Model Comparison for Tsunami Debris Simulation. <i>Journal of Disaster Research</i> , 2021, 16, 1030-1044.	0.4	5
89	Extreme wave loads on submerged water intakes in shallow water. <i>Journal of Hydrodynamics</i> , 2015, 27, 38-51.	1.3	4
90	Extension of a well-balanced central upwind scheme for variable density shallow water flow equations on triangular grids. <i>Computers and Fluids</i> , 2017, 156, 441-448.	1.3	4

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91	Image-Based Measurement of Wave Interactions with Rubble Mound Breakwaters. Journal of Marine Science and Engineering, 2020, 8, 472.	1.2	4
92	Experimental Investigation of Loading due to Debris Dams on Structures. Journal of Hydraulic Engineering, 2020, 146, 04020029.	0.7	4
93	Experimental Investigations of Hydraulic Surges Passing Over a Rectangular Canal. Journal of Earthquake and Tsunami, 2020, 14, 2040004.	0.7	3
94	Mechanical response of buried and covered pipes under water hammer. International Journal of Pressure Vessels and Piping, 2021, 190, 104310.	1.2	3
95	Effects of developing ice covers on bridge pier scour. Journal of Hydraulic Research/De Recherches Hydrauliques, 2022, 60, 645-655.	0.7	3
96	Field and numerical investigations of the morpho-hydrodynamic processes of the tidal inlet at Shippagan Gully, New Brunswick, Canada. Coastal Engineering Journal, 2018, 60, 400-422.	0.7	2
97	Numerical Simulation of Flow in Parshall Flume Using Selected Nonlinear Turbulence Models. Hydrology, 2021, 8, 151.	1.3	2
98	Scour Mechanics of a Tsunami-Like Bore around a Square Structure. Journal of Waterway, Port, Coastal and Ocean Engineering, 2022, 148, .	0.5	2
99	Assessments of Available Riverine Hydrokinetic Energy: A Review. Canadian Journal of Civil Engineering, 0, , .	0.7	2
100	Application of Numerical and Experimental Modeling to Improve the Efficiency of Parshall Flumes: A Review of the State-of-the-Art. Hydrology, 2022, 9, 26.	1.3	2
101	A fully coupled hydrodynamic-DEM model for simulating debris dynamics and impact forces. Ocean Engineering, 2022, 255, 111468.	1.9	2
102	Tsunami-Induced Bore Propagating over a Canal – Part 1: Laboratory Experiments and Numerical Validation. Fluids, 2022, 7, 213.	0.8	2
103	Tsunami-Induced Forces on Structures. , 2018, , 481-506.		1
104	Experimental Investigation of Tsunami Impact on Free Standing Structures. , 0, .		1
105	STRUCTURAL ANALYSIS FOR TSUNAMI-INDUCED FORCE AND DEBRIS IMPACT. , 2009, , .		1
106	Tsunami-Induced Bores Propagating over a Canal, Part II: Numerical Experiments Using the Standard $k-\epsilon$ Turbulence Model. Fluids, 2022, 7, 214.	0.8	1
107	Hydrodynamics and Associated Scour around a Free-Standing Structure Due to Turbulent Bores. Journal of Waterway, Port, Coastal and Ocean Engineering, 2022, 148, .	0.5	1
108	Water wave frequency detection by optical fiber sensor. Optics Communications, 2008, 281, 6011-6015.	1.0	0

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109	EXPERIMENTAL STUDY OF STRUCTURES IMPACTED BY SIMULATED TSUNAMI BORE. , 2013, , .		0
110	Debris Impacts and Effects on Structures. , 2018, , 457-479.		0
111	A Comparison between Agent-Based and GIS-Based Tsunami Evacuation Simulations: A Case Study for Tofino, BC. Canadian Journal of Civil Engineering, 0, , .	0.7	0
112	Effect of Lateral Spacing of Structures on Tsunami-Induced Scour. Journal of Coastal Research, 2021, 37, .	0.1	0
113	TSUNAMI NUMERICAL MODELLING FOR THE HYPERBOLIC (PACIFIC), PARABOLIC (ATLANTIC) AND ELLIPTIC (INDIAN) OCEAN. , 2007, , .		0
114	MODEL FOR WAVE AND CURRENT-INDUCED SEDIMENT CONCENTRATION FOR COHESIVE SEDIMENTS. , 2009, , .		0
115	MULTI-LAYER SEDIMENT CAPPING STRUCTURE “ A CANADIAN EXPERIENCE. , 2009, , .		0