Mehdi Raessi

List of Publications by Year
in descending order

24 papers	592 citations	687363 13 h-index	677142 22 g-index
24 all docs	24 docs citations	24 times ranked	536 citing authors

#	Article	IF	Citations
1	A computational framework for the analysis of rain-induced erosion in wind turbine blades, part I: Stochastic rain texture model and drop impact simulations. Journal of Wind Engineering and Industrial Aerodynamics, 2017, 163, 33-43.	3.9	75
2	Consistent mass and momentum transport for simulating incompressible interfacial flows with large density ratios using the level set method. Computers and Fluids, 2012, 63, 70-81.	2.5	64
3	A computational framework for the analysis of rain-induced erosion in wind turbine blades, part II: Drop impact-induced stresses and blade coating fatigue life. Journal of Wind Engineering and Industrial Aerodynamics, 2017, 163, 44-54.	3.9	44
4	A volume-of-fluid interfacial flow solver with advected normals. Computers and Fluids, 2010, 39, 1401-1410.	2.5	39
5	Computational simulation of the interactions between moving rigid bodies and incompressible two-fluid flows. Computers and Fluids, 2014, 94, 1-13.	2.5	39
6	Advecting normal vectors: A new method for calculating interface normals and curvatures when modeling two-phase flows. Journal of Computational Physics, 2007, 226, 774-797.	3.8	38
7	Producing molten metal droplets smaller than the nozzle diameter using a pneumatic drop-on-demand generator. Experimental Thermal and Fluid Science, 2013, 47, 26-33.	2.7	37
8	A 3D, fully Eulerian, VOF-based solver to study the interaction between two fluids and moving rigid bodies using the fictitious domain method. Journal of Computational Physics, 2016, 311, 87-113.	3.8	37
9	A semiâ€implicit finite volume implementation of the CSF method for treating surface tension in interfacial flows. International Journal for Numerical Methods in Fluids, 2009, 59, 1093-1110.	1.6	36
10	Three-Dimensional Modelling of Density Variation Due to Phase Change in Complex Free Surface Flows. Numerical Heat Transfer, Part B: Fundamentals, 2005, 47, 507-531.	0.9	30
11	A three-dimensional volume-of-fluid method for reconstructing and advecting three-material interfaces forming contact lines. Journal of Computational Physics, 2016, 307, 550-573.	3.8	30
12	Study of solidification behavior and splat morphology of vacuum plasma sprayed Ti alloy by computational modeling and experimental results. Surface and Coatings Technology, 2007, 201, 7924-7931.	4.8	20
13	The Feasibility of Amazon's Cloud Computing Platform for Parallel, GPU-Accelerated, Multiphase-Flow Simulations. Computing in Science and Engineering, 2016, 18, 68-77.	1.2	15
14	Toward predictive and computationally affordable Lagrangianâ€"Eulerian modeling of sprayâ€"wall interaction. International Journal of Engine Research, 2020, 21, 263-280.	2.3	15
15	Effect of Substrate Concave Pattern on Splat Formation of Yttria-Stabilized Zirconia in Atmospheric Plasma Spraying. Journal of Thermal Spray Technology, 2009, 18, 609-618.	3.1	12
16	Advanced computational simulations of water waves interacting with wave energy converters. European Journal of Computational Mechanics, 2017, 26, 172-204.	0.6	11
17	Enhancing power extraction in bottom-hinged flap-type wave energy converters through advanced power take-off techniques. Ocean Engineering, 2019, 182, 248-258.	4.3	11
18	High-speed impact of micron-sized diesel drop trainsâ€"Splashing dynamics, secondary droplet formation, and effects of pre-existing film thickness. Physics of Fluids, 2021, 33, 102120.	4.0	11

#	Article	IF	Citations
19	Computational characterization of the secondary droplets formed during the impingement of a train of ethanol drops. International Journal of Engine Research, 2020, 21, 248-262.	2.3	8
20	Using Graphics Processing Units to Accelerate Numerical Simulations of Interfacial Incompressible Flows. , 2012, , .		6
21	Using a DNS Framework to Test a Splashed Mass Sub-Model for Lagrangian Spray Simulations. , 0, , .		6
22	Advanced Computational Simulations of Surface Impingement of a Train of Ethanol Drops: A Pathway to Developing Spray-Wall Interaction Submodels. Computing in Science and Engineering, 2018, 20, 56-65.	1.2	6
23	An implicit, sharp numerical treatment of viscous terms at arbitrarily shaped liquid-gas interfaces in evaporative flows. Journal of Computational Physics, 2020, 418, 109625.	3.8	1
24	Impact of high-speed diesel drop trains: Pursuing cleaner diesel engines. Physical Review Fluids, 2021, 6, .	2.5	1