

# David H Richter

## List of Publications by Year in descending order

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Version: 2024-02-01

49  
papers

1,049  
citations

394286

19  
h-index

434063

31  
g-index

51  
all docs

51  
docs citations

51  
times ranked

976  
citing authors

#	ARTICLE	IF	CITATIONS
1	The Individualistic Dynamics of Entangled DNA in Solution. <i>Macromolecules</i> , 2007, 40, 2461-2476.	2.2	99
2	Simulations of three-dimensional viscoelastic flows past a circular cylinder at moderate Reynolds numbers. <i>Journal of Fluid Mechanics</i> , 2010, 651, 415-442.	1.4	80
3	Modification of near-wall coherent structures by inertial particles. <i>Physics of Fluids</i> , 2014, 26, .	1.6	52
4	Momentum transfer in a turbulent, particle-laden Couette flow. <i>Physics of Fluids</i> , 2013, 25, .	1.6	50
5	Two mechanisms of modulation of very-large-scale motions by inertial particles in open channel flow. <i>Journal of Fluid Mechanics</i> , 2019, 868, 538-559.	1.4	46
6	The effect of pre-shear on the extensional rheology of wormlike micelle solutions. <i>Rheologica Acta</i> , 2007, 46, 861-875.	1.1	45
7	Evidence of spray-mediated air-sea enthalpy flux within tropical cyclones. <i>Geophysical Research Letters</i> , 2014, 41, 2997-3003.	1.5	41
8	An Assessment of the Flux Profile Method for Determining Air-Sea Momentum and Enthalpy Fluxes from Dropsonde Data in Tropical Cyclones. <i>Journals of the Atmospheric Sciences</i> , 2016, 73, 2665-2682.	0.6	40
9	Turbulence modification by inertial particles and its influence on the spectral energy budget in planar Couette flow. <i>Physics of Fluids</i> , 2015, 27, .	1.6	39
10	Inertial particle velocity and distribution in vertical turbulent channel flow: A numerical and experimental comparison. <i>International Journal of Multiphase Flow</i> , 2019, 120, 103105.	1.6	38
11	C-FOG: Life of Coastal Fog. <i>Bulletin of the American Meteorological Society</i> , 2021, 102, E244-E272.	1.7	37
12	Sea surface drag and the role of spray. <i>Geophysical Research Letters</i> , 2013, 40, 656-660.	1.5	34
13	Ocean spray: An outsized influence on weather and climate. <i>Physics Today</i> , 2016, 69, 34-39.	0.3	26
14	Turbulent latent and sensible heat flux in the presence of evaporative droplets. <i>International Journal of Multiphase Flow</i> , 2016, 78, 1-11.	1.6	25
15	Rayleigh-Bénard turbulence modified by two-way coupled inertial, nonisothermal particles. <i>Physical Review Fluids</i> , 2018, 3, .	1.0	25
16	Effects of viscoelasticity in the high Reynolds number cylinder wake. <i>Journal of Fluid Mechanics</i> , 2012, 693, 297-318.	1.4	23
17	Inertial Effects on the Vertical Transport of Suspended Particles in a Turbulent Boundary Layer. <i>Boundary-Layer Meteorology</i> , 2018, 167, 235-256.	1.2	22
18	Floquet stability analysis of viscoelastic flow over a cylinder. <i>Journal of Non-Newtonian Fluid Mechanics</i> , 2011, 166, 554-565.	1.0	21

#	ARTICLE	IF	CITATIONS
19	Characterization of bedload intermittency near the threshold of motion using a Lagrangian sediment transport model. <i>Environmental Fluid Mechanics</i> , 2017, 17, 111-137.	0.7	21
20	Effects of incomplete mixing on reactive transport in flows through heterogeneous porous media. <i>Physical Review Fluids</i> , 2017, 2, .	1.0	21
21	The Sea Spray Contribution to Sensible Heat Flux. <i>Journals of the Atmospheric Sciences</i> , 2014, 71, 640-654.	0.6	20
22	Modulation of the turbulence regeneration cycle by inertial particles in planar Couette flow. <i>Journal of Fluid Mechanics</i> , 2019, 861, 901-929.	1.4	20
23	GPU acceleration of Eulerian-Lagrangian particle-laden turbulent flow simulations. <i>International Journal of Multiphase Flow</i> , 2018, 99, 437-445.	1.6	17
24	A Dual Domain stochastic lagrangian model for predicting transport in open channels with hyporheic exchange. <i>Advances in Water Resources</i> , 2019, 125, 57-67.	1.7	17
25	Sea Spray and Its Feedback Effects: Assessing Bulk Algorithms of Air-Sea Heat Fluxes via Direct Numerical Simulations. <i>Journal of Physical Oceanography</i> , 2019, 49, 1403-1421.	0.7	17
26	Influence of Evaporating Droplets in the Turbulent Marine Atmospheric Boundary Layer. <i>Boundary-Layer Meteorology</i> , 2017, 165, 497-518.	1.2	16
27	Turbulent Transport of Spray Droplets in the Vicinity of Moving Surface Waves. <i>Journal of Physical Oceanography</i> , 2019, 49, 1789-1807.	0.7	16
28	Mechanisms governing the settling velocities and spatial distributions of inertial particles in wall-bounded turbulence. <i>Physical Review Fluids</i> , 2021, 6, .	1.0	15
29	Upscaling Mixing in Highly Heterogeneous Porous Media via a Spatial Markov Model. <i>Water (Switzerland)</i> , 2019, 11, 53.	1.2	14
30	Direct numerical simulation of turbulence and microphysics in the Pi Chamber. <i>Physical Review Fluids</i> , 2022, 7, .	1.0	11
31	Effect of computational domain size on inertial particle one-point statistics in open channel flow. <i>International Journal of Multiphase Flow</i> , 2020, 125, 103195.	1.6	10
32	A Lagrangian Cloud Model for the Study of Marine Fog. <i>Boundary-Layer Meteorology</i> , 2021, 181, 523-542.	1.2	10
33	Challenges and Opportunities in Atmospheric Dust Emission, Chemistry, and Transport. <i>Bulletin of the American Meteorological Society</i> , 2018, 99, ES115-ES118.	1.7	9
34	Multiscale interaction of inertial particles with turbulent motions in open channel flow. <i>Physical Review Fluids</i> , 2020, 5, .	1.0	9
35	Particle stresses in dilute, polydisperse, two-way coupled turbulent flows. <i>Physical Review E</i> , 2016, 93, 013111.	0.8	8
36	Settling strongly modifies particle concentrations in wall-bounded turbulent flows even when the settling parameter is asymptotically small. <i>Physical Review Fluids</i> , 2021, 6, .	1.0	8

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37	Parameterized Vertical Concentration Profiles for Aerosols in the Marine Atmospheric Boundary Layer. <i>Journal of Geophysical Research D: Atmospheres</i> , 2018, 123, 9688-9702.	1.2	7
38	Investigating the Sensitivity of Marine Fog to Physical and Microphysical Processes Using Large-Eddy Simulation. <i>Boundary-Layer Meteorology</i> , 2021, 181, 473-498.	1.2	7
39	Influences of Polydisperse Sea Spray Size Distributions on Model Predictions of Air-Sea Heat Fluxes. <i>Journal of Geophysical Research D: Atmospheres</i> , 2020, 125, e2019JD032326.	1.2	5
40	A Formulation of the Thrust Coefficient for Representing Finite-Sized Farms of Tidal Energy Converters. <i>Energies</i> , 2019, 12, 3861.	1.6	4
41	Upscaling bimolecular reactive transport in highly heterogeneous porous media with the Lagrangian Transport Eulerian Reaction Spatial (LTERS) Markov model. <i>Stochastic Environmental Research and Risk Assessment</i> , 2021, 35, 1529.	1.9	4
42	Potential low bias in high-wind drag coefficient inferred from dropsonde data in hurricanes. <i>Journals of the Atmospheric Sciences</i> , 2021, , .	0.6	4
43	Flow effects of finite-sized tidal turbine arrays in the Chacao Channel, Southern Chile. <i>Renewable Energy</i> , 2022, 195, 637-647.	4.3	4
44	Detection of evolving Lagrangian coherent structures: A multiple object tracking approach. <i>Physical Review Fluids</i> , 2020, 5, .	1.0	3
45	Numerical Simulation of Polymer Injection in Turbulent Flow Past a Circular Cylinder. <i>Journal of Fluids Engineering, Transactions of the ASME</i> , 2011, 133, .	0.8	2
46	The most robust representations of flow trajectories are Lagrangian coherent structures. <i>Journal of Fluid Mechanics</i> , 2021, 927, .	1.4	2
47	Aerosol Activation in Radiation Fog at the Atmospheric Radiation Program Southern Great Plains Site. <i>Journal of Geophysical Research D: Atmospheres</i> , 2021, 126, e2021JD035358.	1.2	2
48	Predicting Vertical Concentration Profiles in the Marine Atmospheric Boundary Layer With a Markov Chain Random Walk Model. <i>Journal of Geophysical Research D: Atmospheres</i> , 2020, 125, e2020JD032731.	1.2	1
49	Editorial: Introduction to the 38th Annual Gallery of Fluid Motion (Chicago, IL, USA 2020). <i>Physical Review Fluids</i> , 2021, 6, .	1.0	0