

Daniel Karrasch

List of Publications by Year in descending order

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papers

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933447

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all docs

17
docs citations

17
times ranked

348
citing authors

#	ARTICLE	IF	CITATIONS
1	Spectral-clustering approach to Lagrangian vortex detection. <i>Physical Review E</i> , 2016, 93, 063107.	2.1	112
2	Material barriers to diffusive and stochastic transport. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2018, 115, 9074-9079.	7.1	46
3	Do Finite-Size Lyapunov Exponents detect coherent structures?. <i>Chaos</i> , 2013, 23, 043126.	2.5	44
4	Automated detection of coherent Lagrangian vortices in two-dimensional unsteady flows. <i>Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences</i> , 2015, 471, 20140639.	2.1	38
5	Genesis, evolution, and apocalypse of Loop Current rings. <i>Physics of Fluids</i> , 2020, 32, .	4.0	16
6	A Geometric Heat-Flow Theory of Lagrangian Coherent Structures. <i>Journal of Nonlinear Science</i> , 2020, 30, 1849-1888.	2.1	15
7	A unified approach to finite-time hyperbolicity which extends finite-time Lyapunov exponents. <i>Journal of Differential Equations</i> , 2012, 252, 5535-5554.	2.2	14
8	Barriers to the Transport of Diffusive Scalars in Compressible Flows. <i>SIAM Journal on Applied Dynamical Systems</i> , 2020, 19, 85-123.	1.6	14
9	Carriers of <i>Sargassum</i> and mechanism for coastal inundation in the Caribbean Sea. <i>Physics of Fluids</i> , 2022, 34, .	4.0	13
10	Linearization of hyperbolic finite-time processes. <i>Journal of Differential Equations</i> , 2013, 254, 256-282.	2.2	11
11	Fast and robust computation of coherent Lagrangian vortices on very large two-dimensional domains. <i>SIAM Journal of Computational Mathematics</i> , 0, 6, 101-124.	0.0	11
12	Comment on "A variational theory of hyperbolic Lagrangian coherent structures, <i>Physica D</i> 240 (2011) 574-598". <i>Physica D: Nonlinear Phenomena</i> , 2012, 241, 1470-1473.	2.8	10
13	Attraction-based computation of hyperbolic Lagrangian coherent structures. <i>Journal of Computational Dynamics</i> , 2015, 2, 83-93.	1.1	10
14	Attracting Lagrangian coherent structures on Riemannian manifolds. <i>Chaos</i> , 2015, 25, 087411.	2.5	9
15	Lagrangian Transport Through Surfaces in Volume-Preserving Flows. <i>SIAM Journal on Applied Mathematics</i> , 2016, 76, 1178-1190.	1.8	6
16	Lagrangian Transport through Surfaces in Compressible Flows. <i>SIAM Journal on Applied Dynamical Systems</i> , 2018, 17, 526-546.	1.6	1
17	Heat-content and diffusive leakage from material sets in the low-diffusivity limit $\langle \sup \rangle^*$. <i>Nonlinearity</i> , 2021, 34, 7303-7321.	1.4	1