Alberto D Scotti

List of Publications by Year
in descending order

53	2,397	218381	205818
papers	citations	26 h-index	48 g-index

58	58	58	1880
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	The formation and fate of internal waves in the South China Sea. Nature, 2015, 521, 65-69.	13.7	487
2	Generalized Smagorinsky model for anisotropic grids. Physics of Fluids A, Fluid Dynamics, 1993, 5, 2306-2308.	1.6	216
3	Numerical simulation of pulsating turbulent channel flow. Physics of Fluids, 2001, 13, 1367-1384.	1.6	173
4	Observation of very large and steep internal waves of elevation near the Massachusetts coast. Geophysical Research Letters, 2004, 31, .	1.5	128
5	Observations of nonlinear internal waves on the outer New England continental shelf during the summer Shelfbreak Primer study. Journal of Geophysical Research, 2001, 106, 9587-9601.	3.3	110
6	A fractal model for large eddy simulation of turbulent flow. Physica D: Nonlinear Phenomena, 1999, 127, 198-232.	1.3	88
7	Direct numerical simulation of turbulent channel flows with boundary roughened with virtual sandpaper. Physics of Fluids, 2006, 18, 031701.	1.6	73
8	Large internal waves in Massachusetts Bay transport sediments offshore. Continental Shelf Research, 2006, 26, 2029-2049.	0.9	70
9	From Topographic Internal Gravity Waves to Turbulence. Annual Review of Fluid Mechanics, 2017, 49, 195-220.	10.8	66
10	On the interpretation of energy and energy fluxes of nonlinear internal waves: an example from Massachusetts Bay. Journal of Fluid Mechanics, 2006, 561, 103.	1.4	59
11	Turbulence Models in Pulsating Flows. AIAA Journal, 2002, 40, 537-544.	1.5	55
12	Biases in Thorpe-Scale Estimates of Turbulence Dissipation. Part II: Energetics Arguments and Turbulence Simulations. Journal of Physical Oceanography, 2015, 45, 2522-2543.	0.7	55
13	Is horizontal convection really â€œnon-turbulent?â€• Geophysical Research Letters, 2011, 38, n/a-n/a.	1.5	49
14	Plankton accumulation and transport in propagating nonlinear internal fronts. Journal of Marine Research, 2007, 65, 117-145.	0.3	48
15	Mean Structure and Dynamics of the Shelfbreak Jet in the Middle Atlantic Bight during Fall and Winter*. Journal of Physical Oceanography, 2001, 31, 2135-2156.	0.7	48
16	Fractal Model for Coarse-Grained Nonlinear Partial Differential Equations. Physical Review Letters, 1997, 78, 867-870.	2.9	44
17	Entrainment and suspension of sediments into a turbulent flow over ripples. Journal of Turbulence, 2003, 4, .	0.5	44
18	Modeling unsteady turbulent flows over ripples: Reynolds-averaged Navier-Stokes equations (RANS) versus large-eddy simulation (LES). Journal of Geophysical Research, 2004, 109, .	3.3	42

#	Article	IF	Citations
19	Diagnosing mixing in stratified turbulent flows with a locally defined available potential energy. Journal of Fluid Mechanics, 2014, 740, 114-135.	1.4	42
20	Dynamic Smagorinsky model on anisotropic grids. Physics of Fluids, 1997, 9, 1856-1858.	1.6	41
21	Fractal dimension of velocity signals in high-Reynolds-number hydrodynamic turbulence. Physical Review E, 1995, 51, 5594-5608.	0.8	39
22	Shoaling of nonlinear internal waves in Massachusetts Bay. Journal of Geophysical Research, 2008, 113, .	3.3	35
23	Generation and propagation of nonlinear internal waves in Massachusetts Bay. Journal of Geophysical Research, 2007, 112, .	3.3	34
24	A Modified Beam-to-Earth Transformation to Measure Short-Wavelength Internal Waves with an Acoustic Doppler Current Profiler. Journal of Atmospheric and Oceanic Technology, 2005, 22, 583-591.	0.5	31
25	Turbulent convection of suspended sediments due to flow reversal. Journal of Geophysical Research, 2006, 111, .	3.3	31
26	Available Potential Energy and the General Circulation: Partitioning Wind, Buoyancy Forcing, and Diapycnal Mixing. Journal of Physical Oceanography, 2015, 45, 1510-1531.	0.7	26
27	An approximated method for the solution of elliptic problems in thin domains: Application to nonlinear internal waves. Ocean Modelling, 2008, 25, 144-153.	1.0	24
28	The Mixing Efficiency of Stratified Turbulent Boundary Layers. Journal of Physical Oceanography, 2016, 46, 3181-3191.	0.7	24
29	The Stratified Ocean Model with Adaptive Refinement (SOMAR). Journal of Computational Physics, 2015, 291, 60-81.	1.9	20
30	Transition and turbulence in horizontal convection: linear stability analysis. Journal of Fluid Mechanics, 2017, 821, 31-58.	1.4	18
31	Non-homogeneous analysis of rogue wave probability evolution over a shoal. Journal of Fluid Mechanics, 2022, 939, .	1.4	18
32	Turbulence during the reflection of internal gravity waves at critical and near-critical slopes. Journal of Fluid Mechanics, 2013, 729, 47-68.	1.4	17
33	SOMAR-LES: A framework for multi-scale modeling of turbulent stratified oceanic flows. Ocean Modelling, 2017, 120, 101-119.	1.0	15
34	A numerical study of the frontal region of gravity currents propagating on a free-slip boundary. Theoretical and Computational Fluid Dynamics, 2008, 22, 383-402.	0.9	12
35	Estimating pressure and internal-wave flux from laboratory experiments in focusing internal waves. Experiments in Fluids, 2020, 61, 1.	1.1	11
36	Large eddy simulation in the ocean. International Journal of Computational Fluid Dynamics, 2010, 24, 393-406.	0.5	10

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37	Inviscid critical and near-critical reflection of internal waves in the time domain. Journal of Fluid Mechanics, 2011, 674, 464-488.	1.4	10
38	<i>Preface</i> Large amplitude internal waves in the coastal ocean. Nonlinear Processes in Geophysics, 2011, 18, 653-655.	0.6	9
39	On the physical constraints for the exceeding probability of deep water rogue waves. Applied Ocean Research, 2021, 108, 102402.	1.8	9
40	The Rayleigh-Haring-Tayfun distribution of wave heights in deep water. Applied Ocean Research, 2021, 113, 102739.	1.8	9
41	An efficient method for solving highly anisotropic elliptic equations. Journal of Computational Physics, 2011, 230, 8342-8359.	1.9	8
42	Winter Atmospheric Conditions over the Japan/East Sea: The Structure and Impact of Severe Cold-Air Outbreaks. Oceanography, 2006, 19, 96-109.	0.5	7
43	Large-Eddy Simulations of Turbulent Flows, from Desktop to Supercomputer. Lecture Notes in Computer Science, 2001, , 551-577.	1.0	7
44	Orographic effects during winter cold-air outbreaks over the Sea of Japan (East Sea): Results from a shallow-layer model. Deep-Sea Research Part II: Topical Studies in Oceanography, 2005, 52, 1705-1725.	0.6	5
45	An Explicit Family of Probability Measures for Passive Scalar Diffusion in a Random Flow. Journal of Statistical Physics, 2007, 128, 927-968.	0.5	5
46	Rogue wave statistics in (2+1) Gaussian seas I: Narrow-banded distribution. Applied Ocean Research, 2020, 99, 102043.	1.8	5
47	Turbulent horizontal convection at high Schmidt numbers. Physical Review Fluids, 2017, 2, .	1.0	5
48	Diagnosing diabatic effects on the available energy of stratified flows in inertial and non-inertial frames. Journal of Fluid Mechanics, 2019, 861, 608-642.	1.4	4
49	Turbulence models in pulsating flows. , 2001, , .		3
50	Poster: Turbulent Horizontal Convection at High Prandtl Numbers. , 0, , .		1
51	Poster: Internal Wave Focusing Above a Three Dimensional Topography. , 0, , .		1
52	DNS of a Gravity Current Propagating over a Free-Slip Boundary. ERCOFTAC Series, 2010, , 445-450.	0.1	0
53	LES of Pulsating Turbulent Flows over Smooth and Wavy Boundaries. Notes on Numerical Fluid Mechanics and Multidisciplinary Design, 2010, , 25-36.	0.2	0