Richard K Scott

List of Publications by Year
in descending order

50 papers	1,389 citations	331670 21 h-index	361022 35 g-index
50 all docs	50 docs citations	50 times ranked	968 citing authors

#	Article	IF	Citations
1	Forced-Dissipative Shallow-Water Turbulence on the Sphere and the Atmospheric Circulation of the Giant Planets. Journals of the Atmospheric Sciences, 2007, 64, 3158-3176.	1.7	97
2	Internal Variability of the Winter Stratosphere. Part I: Time-Independent Forcing. Journals of the Atmospheric Sciences, 2006, 63, 2758-2776.	1.7	88
3	An initial-value problem for testing numerical models of the global shallow-water equations. Tellus, Series A: Dynamic Meteorology and Oceanography, 2004, 56, 429-440.	1.7	88
4	An initial-value problem for testing numerical models of the global shallow-water equations. Tellus, Series A: Dynamic Meteorology and Oceanography, 2022, 56, 429.	1.7	84
5	Stratospheric control of upward wave flux near the tropopause. Geophysical Research Letters, 2004, 31, .	4.0	75
6	Excitation of Transient Rossby Waves on the Stratospheric Polar Vortex and the Barotropic Sudden Warming. Journals of the Atmospheric Sciences, 2005, 62, 3661-3682.	1.7	70
7	The structure of zonal jets in geostrophic turbulence. Journal of Fluid Mechanics, 2012, 711, 576-598.	3.4	68
8	Equatorial superrotation in shallow atmospheres. Geophysical Research Letters, 2008, 35, .	4.0	56
9	A Barotropic Model of the Angular Momentumâ€“Conserving Potential Vorticity Staircase in Spherical Geometry. Journals of the Atmospheric Sciences, 2008, 65, 1105-1136.	1.7	56
10	Numerically Converged Solutions of the Global Primitive Equations for Testing the Dynamical Core of Atmospheric GCMs. Monthly Weather Review, 2004, 132, 2539-2552.	1.4	54
11	Internal interannual variability of the extratropical stratospheric circulation: The low-latitude flywheel. Quarterly Journal of the Royal Meteorological Society, 1998, 124, 2149-2173.	2.7	50
12	Internal Vacillations in Stratosphere-Only Models. Journals of the Atmospheric Sciences, 2000, 57, 3233-3250.	1.7	40
13	Jet sharpening by turbulent mixing. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2011, 369, 754-770.	3.4	39
14	Revisiting Batchelor's theory of two-dimensional turbulence. Journal of Fluid Mechanics, 2007, 591, 379-391.	3.4	33
15	Numerical Simulation of a Self-Similar Cascade of Filament Instabilities in the Surface Quasigeostrophic System. Physical Review Letters, 2014, 112, 144505.	7.8	33
16	The Seasonal Cycle of Planetary Waves in the Winter Stratosphere. Journals of the Atmospheric Sciences, 2002, 59, 803-822.	1.7	29
17	Enhancement of Rossby Wave Breaking by Steep Potential Vorticity Gradients in the Winter Stratosphere. Journals of the Atmospheric Sciences, 2004, 61, 904-918.	1.7	28
18	The Antarctic stratospheric sudden warming of 2002: A self-tuned resonance?. Geophysical Research Letters, 2006, 33, .	4.0	27

#	Article	IF	Citations
19	A scenario for finite-time singularity in the quasigeostrophic model. Journal of Fluid Mechanics, 2011, 687, 492-502.	3.4	27
20	Polar accumulation of cyclonic vorticity. Geophysical and Astrophysical Fluid Dynamics, 2011, 105, 409-420.	1.2	25
21	The Stability of Marsâ€™s Annular Polar Vortex. Journals of the Atmospheric Sciences, 2017, 74, 1533-1547.	1.7	24
22	Kraichnanâ€“Leithâ€“Batchelor similarity theory and two-dimensional inverse cascades. Journal of Fluid Mechanics, 2015, 767, 467-496.	3.4	21
23	The role of planetary waves in the tropospheric jet response to stratospheric cooling. Geophysical Research Letters, 2016, 43, 2904-2911.	4.0	21
24	Wave Reflection and Focusing prior to the Major Stratospheric Warming of September 2002*. Journals of the Atmospheric Sciences, 2005, 62, 640-650.	1.7	20
25	Vortex scaling ranges in two-dimensional turbulence. Physics of Fluids, 2017, 29, .	4.0	20
26	The stability of quasi-geostrophic ellipsoidal vortices. Journal of Fluid Mechanics, 2005, 536, 401-421.	3.4	19
27	Stretching rates and equivalent length near the tropopause. Journal of Geophysical Research, 2003, 108, n/a-n/a.	3.3	18
28	Scaling theory for vortices in the two-dimensional inverse energy cascade. Journal of Fluid Mechanics, 2017, 811, 742-756.	3.4	17
29	A new class of vacillations of the stratospheric polar vortex. Quarterly Journal of the Royal Meteorological Society, 2016, 142, 1948-1957.	2.7	15
30	The generation of zonal jets by large-scale mixing. Physics of Fluids, 2012, 24, .	4.0	14
31	Vortical control of forced two-dimensional turbulence. Physics of Fluids, 2013, 25, .	4.0	14
32	The onset of the barotropic sudden warming in a global model. Quarterly Journal of the Royal Meteorological Society, 2015, 141, 2944-2955.	2.7	14
33	Late time evolution of unforced inviscid two-dimensional turbulence. Journal of Fluid Mechanics, 2009, 640, 215-233.	3.4	13
34	Encapsulation of Fiber Optic Sensors in 3D Printed Packages for Use in Civil Engineering Applications: A Preliminary Study. Sensors, 2019, 19, 1689.	3.8	12
35	A test case for the inviscid shallowâ€water equations on the sphere. Quarterly Journal of the Royal Meteorological Society, 2016, 142, 488-495.	2.7	10
36	Spontaneous inertiaâ€gravity wave emission from a nonlinear critical layer in the stratosphere. Quarterly Journal of the Royal Meteorological Society, 2020, 146, 1516-1528.	2.7	9

#	Article	IF	Citations
37	Scale-invariant singularity of the surface quasigeostrophic patch. Journal of Fluid Mechanics, 2019, 863, .	3.4	8
38	Forcing of the Martian polar annulus by Hadley cell transport and latent heating. Quarterly Journal of the Royal Meteorological Society, 2020, 146, 2174-2190.	2.7	8
39	Polar Vortices in Planetary Atmospheres. Reviews of Geophysics, 2021, 59, e2020RG000723.	23.0	7
40	Halting scale and energy equilibration in two-dimensional quasigeostrophic turbulence. Journal of Fluid Mechanics, 2013, 721, .	3.4	6
41	Zonal Jet Formation by Potential Vorticity Mixing at Large and Small Scales. , 2019, , 238-246.		6
42	On the formation and maintenance of the stratospheric surf zone as inferred from the zonally averaged potential vorticity distribution. Quarterly Journal of the Royal Meteorological Society, 2015, 141, 327-332.	2.7	5
43	Downward Wave Propagation on the Polar Vortex. Journals of the Atmospheric Sciences, 2005, 62, 3382-3395.	1.7	5
44	Vertical structure of tropospheric winds on gas giants. Geophysical Research Letters, 2017, 44, 3073-3081.	4.0	4
45	Robustness of vortex populations in the two-dimensional inverse energy cascade. Journal of Fluid Mechanics, 2018, 850, 844-874.	3.4	4
46	Nonlinear latitudinal transfer of wave activity in the winter stratosphere. Quarterly Journal of the Royal Meteorological Society, 2019, 145, 1933-1946.	2.7	3
47	On the spacing of meandering jets in the strong-stair limit. Journal of Fluid Mechanics, 2022, 930, .	3.4	3
48	Internal interannual variability of the winter polar vortex in a simple model of the seasonally evolving stratosphere. Quarterly Journal of the Royal Meteorological Society, 2019, 145, 3057-3073.	2.7	1
49	The stability of quasi-geostrophic ellipsoidal vortices. , 0, .		1
50	Shrinkage curvature of cracked reinforced concrete sections under load. Structural Concrete, 0, , .	3.1	0