

Timothy Dowling

List of Publications by Year in descending order

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52
papers

2,736
citations

218677

26
h-index

243625

44
g-index

56
all docs

56
docs citations

56
times ranked

1835
citing authors

#	ARTICLE	IF	CITATIONS
1	The libRadtran software package for radiative transfer calculations (version 2.0.1). <i>Geoscientific Model Development</i> , 2016, 9, 1647-1672.	3.6	447
2	Voyager 2 in the Uranian System: Imaging Science Results. <i>Science</i> , 1986, 233, 43-64.	12.6	406
3	HST imaging of atmospheric phenomena created by the impact of comet Shoemaker-Levy 9. <i>Science</i> , 1995, 267, 1288-1296.	12.6	206
4	Jupiter's Great Red Spot as a Shallow Water System. <i>Journals of the Atmospheric Sciences</i> , 1989, 46, 3256-3278.	1.7	143
5	The Explicit Planetary Isentropic-Coordinate (EPIC) Atmospheric Model. <i>Icarus</i> , 1998, 132, 221-238.	2.5	127
6	Nonlinear Simulations of Jupiter's 5-Micron Hot Spots. <i>Science</i> , 2000, 289, 1737-1740.	12.6	127
7	Saturn's rotation period from its atmospheric planetary-wave configuration. <i>Nature</i> , 2009, 460, 608-610.	27.8	105
8	Dynamics of Jovian Atmospheres. <i>Annual Review of Fluid Mechanics</i> , 1995, 27, 293-334.	25.0	96
9	New secondary-scattering correction in DISORT with increased efficiency for forward scattering. <i>Journal of Quantitative Spectroscopy and Radiative Transfer</i> , 2011, 112, 2028-2034.	2.3	96
10	Coordinated 1996 HST and IRTF Imaging of Neptune and Triton III. Neptune's Atmospheric Circulation and Cloud Structure. <i>Icarus</i> , 2001, 149, 459-488.	2.5	80
11	Potential Vorticity and Layer Thickness Variations in the Flow around Jupiter's Great Red Spot and White Oval BC. <i>Journals of the Atmospheric Sciences</i> , 1988, 45, 1380-1396.	1.7	79
12	Nonlinear simulations of Jupiter's 5-micron hot spots. <i>Science</i> , 2000, 289, 1737-40.	12.6	70
13	Collision of comet Shoemaker-Levy 9 with Jupiter observed by the NASA infrared telescope facility. <i>Science</i> , 1995, 267, 1277-1282.	12.6	68
14	EPIC Simulations of Time-Dependent, Three-Dimensional Vortices with Application to Neptune's Great Dark Spot. <i>Icarus</i> , 1998, 132, 239-265.	2.5	64
15	Neptune's Atmospheric Circulation and Cloud Morphology: Changes Revealed by 1998 HST Imaging. <i>Icarus</i> , 2001, 150, 244-260.	2.5	48
16	Estimate of Jupiter's Deep Zonal-Wind Profile from Shoemaker-Levy 9 Data and Arnol'd's Second Stability Criterion. <i>Icarus</i> , 1995, 117, 439-442.	2.5	47
17	EPIC Simulations of Bright Companions to Neptune's Great Dark Spots. <i>Icarus</i> , 2001, 151, 275-285.	2.5	43
18	The EPIC atmospheric model with an isentropic/terrain-following hybrid vertical coordinate. <i>Icarus</i> , 2006, 182, 259-273.	2.5	43

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19	A Relationship between Potential Vorticity and Zonal Wind on Jupiter. <i>Journals of the Atmospheric Sciences</i> , 1993, 50, 14-22.	1.7	35
20	Dynamical regimes of giant planet polar vortices. <i>Icarus</i> , 2019, 323, 46-61.	2.5	33
21	Effects of topography on the spin-up of a Venus atmospheric model. <i>Journal of Geophysical Research</i> , 2007, 112, .	3.3	32
22	Atmospheric gravity waves from the impact of comet Shoemaker-Levy 9 with Jupiter. <i>Geophysical Research Letters</i> , 1994, 21, 1083-1086.	4.0	31
23	The Emergence of Multiple Robust Zonal Jets from Freely Evolving, Three-Dimensional Stratified Geostrophic Turbulence with Applications to Jupiter. <i>Journals of the Atmospheric Sciences</i> , 2008, 65, 3947-3962.	1.7	28
24	Jupiter's 24° N highest speed jet: Vertical structure deduced from nonlinear simulations of a large-amplitude natural disturbance. <i>Icarus</i> , 2005, 176, 272-282.	2.5	27
25	EPIC simulations of the merger of Jupiter's White Ovals BE and FA: altitude-dependent behavior. <i>Icarus</i> , 2003, 166, 63-74.	2.5	26
26	Addition of water and ammonia cloud microphysics to the EPIC model. <i>Icarus</i> , 2008, 194, 303-326.	2.5	26
27	Dynamic response of Jupiter's atmosphere to the impact of comet Shoemaker-Levy 9. <i>Nature</i> , 1994, 368, 525-527.	27.8	25
28	Jupiter's Tropospheric Thermal Emission. II. Power Spectrum Analysis and Wave Search. <i>Icarus</i> , 1996, 124, 32-44.	2.5	24
29	Emergence of polar-jet polygons from jet instabilities in a Saturn model. <i>Icarus</i> , 2011, 211, 1284-1293.	2.5	19
30	3D Modeling of interactions between Jupiter's ammonia clouds and large anticyclones. <i>Icarus</i> , 2014, 232, 141-156.	2.5	18
31	Jupiter's winds and Arnol'd's second stability theorem: Slowly moving waves and neutral stability. <i>Journal of Geophysical Research</i> , 1993, 98, 18847-18855.	3.3	17
32	Stellar and Jovian Vortices. <i>Annals of the New York Academy of Sciences</i> , 1990, 617, 190-216.	3.8	14
33	SATURN'S LONGITUDE: RISE OF THE SECOND BRANCH OF SHEAR-STABILITY THEORY AND FALL OF THE FIRST. <i>International Journal of Modern Physics D</i> , 2014, 23, 1430006.	2.1	14
34	Jupiter's Great Red Spot: Fine-scale matches of model vorticity patterns to prevailing cloud patterns. <i>Icarus</i> , 2013, 225, 216-227.	2.5	10
35	Jupiter-style Jet Stability. <i>Planetary Science Journal</i> , 2020, 1, 6.	3.6	9
36	Simulations of high-latitude spots on Jupiter: Constraints on vortex strength and the deep wind. <i>Planetary and Space Science</i> , 2005, 53, 1221-1233.	1.7	8

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37	Jupiter's Tropospheric Thermal Emission. I. Observations and Techniques. <i>Icarus</i> , 1996, 124, 22-31.	2.5	7
38	Music of the stratospheres. <i>Nature</i> , 2008, 453, 163-164.	27.8	6
39	Ertel potential vorticity versus Bernoulli streamfunction in earth's extratropical atmosphere. <i>Journal of Advances in Modeling Earth Systems</i> , 2015, 7, 437-458.	3.8	5
40	Successes and failures of shallow-water interpretations of Voyager wind data. <i>Chaos</i> , 1994, 4, 213-225.	2.5	4
41	Ertel potential vorticity versus Bernoulli streamfunction on Mars. <i>Quarterly Journal of the Royal Meteorological Society</i> , 2017, 143, 37-52.	2.7	4
42	Ertel Potential Vorticity versus Bernoulli Potential on Approximately Neutral Surfaces in the Antarctic Circumpolar Current. <i>Journal of Physical Oceanography</i> , 2020, 50, 2621-2648.	1.7	4
43	Jupiter's South South Temperate Zone vortices: Observations and simulations. <i>Icarus</i> , 2010, 206, 747-754.	2.5	3
44	Earth as a Planet. , 2014, , 423-444.		3
45	Earth as a Planet: Atmosphere and Oceans. , 2007, , 169-188.		2
46	Using 3D finite volume for the pressure gradient force in atmospheric models. <i>Quarterly Journal of the Royal Meteorological Society</i> , 2012, 138, 2126-2135.	2.7	2
47	Earth General Circulation Models. , 2013, , .		2
48	Asymmetrical meridional expansion of bright clouds from Saturn's 2010 great white storm. <i>Icarus</i> , 2021, 369, 114650.	2.5	1
49	Berry's lesson for Lamb. <i>Nature Physics</i> , 2019, 15, 734-735.	16.7	0
50	Jupiter: Atmosphere. , 1997, , 367-371.		0
51	Oceans. , 0, , .		0
52	Evolution of Jupiter's critical latitudes: Initial laboratory altimetry results. <i>Journal of Geophysical Research E: Planets</i> , 0, , .	3.6	0