Timothy Dowling

List of Publications by Year in Descending Order

47 papers	2,166 citations	24 h-index	46 g-index
56 ext. papers	2,440 ext. citations	10.5 avg, IF	4.72 L-index

#	Paper	IF	Citations
47	Asymmetrical meridional expansion of bright clouds from Saturn's 2010 great white storm. *Icarus*, **2021**, 369, 114650	3.8	0
46	Ertel Potential Vorticity versus Bernoulli Potential on Approximately Neutral Surfaces in the Antarctic Circumpolar Current. *Journal of Physical Oceanography*, **2020**, 50, 2621-2648	2.4	0
45	Jupiter-style Jet Stability. *Planetary Science Journal*, **2020**, 1, 6	2.9	4
44	Dynamical regimes of giant planet polar vortices. *Icarus*, **2019**, 323, 46-61	3.8	20
43	Ertel potential vorticity versus Bernoulli streamfunction on Mars. *Quarterly Journal of the Royal Meteorological Society*, **2017**, 143, 37-52	6.4	2
42	The libRadtran software package for radiative transfer calculations (version 2.0.1). *Geoscientific Model Development*, **2016**, 9, 1647-1672	6.3	290
41	Ertel potential vorticity versus Bernoulli streamfunction in earth's extratropical atmosphere. *Journal of Advances in Modeling Earth Systems*, **2015**, 7, 437-458	7.1	2
40	Earth as a Planet **2014**, 423-444		1
39	SATURN'S LONGITUDE: RISE OF THE SECOND BRANCH OF SHEAR-STABILITY THEORY AND FALL OF THE FIRST. *International Journal of Modern Physics D*, **2014**, 23, 1430006	2.2	8
38	3D Modeling of interactions between Jupiter's ammonia clouds and large anticyclones. *Icarus*, **2014**, 232, 141-156	3.8	17
37	Jupiter's Great Red Spot: Fine-scale matches of model vorticity patterns to prevailing cloud patterns. *Icarus*, **2013**, 225, 216-227	3.8	9
36	Using 3D finite volume for the pressure-gradient force in atmospheric models. *Quarterly Journal of the Royal Meteorological Society*, **2012**, 138, 2126-2135	6.4	1
35	Emergence of polar-jet polygons from jet instabilities in a Saturn model. *Icarus*, **2011**, 211, 1284-1293	3.8	15
34	New secondary-scattering correction in DISORT with increased efficiency for forward scattering. *Journal of Quantitative Spectroscopy and Radiative Transfer*, **2011**, 112, 2028-2034	2.1	73
33	Jupiter's South South Temperate Zone vortices: Observations and simulations. *Icarus*, **2010**, 206, 747-754	3.8	3
32	Saturn's rotation period from its atmospheric planetary-wave configuration. *Nature*, **2009**, 460, 608-610	50.4	90
31	The Emergence of Multiple Robust Zonal Jets from Freely Evolving, Three-Dimensional Stratified Geostrophic Turbulence with Applications to Jupiter. *Journals of the Atmospheric Sciences*, **2008**, 65, 3947-3962	2.1	25

30	Addition of water and ammonia cloud microphysics to the EPIC model. *Icarus*, **2008**, 194, 303-326	3.8	18
29	Effects of topography on the spin-up of a Venus atmospheric model. *Journal of Geophysical Research*, **2007**, 112,		27
28	Earth as a Planet: Atmosphere and Oceans **2007**, 169-188		2
27	The EPIC atmospheric model with an isentropic/terrain-following hybrid vertical coordinate. *Icarus*, **2006**, 182, 259-273	3.8	33
26	Simulations of high-latitude spots on Jupiter: Constraints on vortex strength and the deep wind. *Planetary and Space Science*, **2005**, 53, 1221-1233	2	7
25	Jupiter's 24°N highest speed jet: Vertical structure deduced from nonlinear simulations of a large-amplitude natural disturbance. *Icarus*, **2005**, 176, 272-282	3.8	24
24	EPIC simulations of the merger of Jupiter's White Ovals BE and FA: altitude-dependent behavior. *Icarus*, **2003**, 166, 63-74	3.8	25
23	Coordinated 1996 HST and IRTF Imaging of Neptune and Triton III. Neptune's Atmospheric Circulation and Cloud Structure. *Icarus*, **2001**, 149, 459-488	3.8	59
22	Neptune's Atmospheric Circulation and Cloud Morphology: Changes Revealed by 1998 HST Imaging. *Icarus*, **2001**, 150, 244-260	3.8	37
21	EPIC Simulations of Bright Companions to Neptune's Great Dark Spots. *Icarus*, **2001**, 151, 275-285	3.8	38
20	Nonlinear Simulations of Jupiter's 5-Micron Hot Spots. *Science*, **2000**, 289, 1737-1740	33.3	67
19	Nonlinear simulations of Jupiter's 5-micron hot spots. *Science*, **2000**, 289, 1737-40	33.3	67
18	The Explicit Planetary Isentropic-Coordinate (EPIC) Atmospheric Model. *Icarus*, **1998**, 132, 221-238	3.8	110
17	EPIC Simulations of Time-Dependent, Three-Dimensional Vortices with Application to Neptune's Great Dark Spot. *Icarus*, **1998**, 132, 239-265	3.8	51
16	Jupiter's Tropospheric Thermal Emission. I. Observations and Techniques. *Icarus*, **1996**, 124, 22-31	3.8	7
15	Jupiter's Tropospheric Thermal Emission. II. Power Spectrum Analysis and Wave Search. *Icarus*, **1996**, 124, 32-44	3.8	19
14	HST imaging of atmospheric phenomena created by the impact of comet Shoemaker-Levy 9. *Science*, **1995**, 267, 1288-96	33.3	175
13	Collision of comet Shoemaker-Levy 9 with Jupiter observed by the NASA infrared telescope facility. *Science*, **1995**, 267, 1277-82	33.3	56

12	Dynamics of Jovian Atmospheres. *Annual Review of Fluid Mechanics*, **1995**, 27, 293-334	22	80
11	Estimate of Jupiter's Deep Zonal-Wind Profile from Shoemaker-Levy 9 Data and Arnol'd's Second Stability Criterion. *Icarus*, **1995**, 117, 439-442	3.8	44
10	Dynamic response of Jupiter's atmosphere to the impact of comet Shoemaker-Levy 9. *Nature*, **1994**, 368, 525-527	50.4	24
9	Atmospheric gravity waves from the impact of comet Shoemaker-Levy 9 with Jupiter. *Geophysical Research Letters*, **1994**, 21, 1083-1086	4.9	25
8	Successes and failures of shallow-water interpretations of Voyager wind data. *Chaos*, **1994**, 4, 213-225	3.3	4
7	Jupiter's winds and Arnol'd's second stability theorem: Slowly moving waves and neutral stability. *Journal of Geophysical Research*, **1993**, 98, 18847		13
6	A Relationship between Potential Vorticity and Zonal Wind on Jupiter. *Journals of the Atmospheric Sciences*, **1993**, 50, 14-22	2.1	25
5	Stellar and Jovian Vorticesa. *Annals of the New York Academy of Sciences*, **1990**, 617, 190-216	6.5	13
4	Jupiter's Great Red Spot as a Shallow Water System. *Journals of the Atmospheric Sciences*, **1989**, 46, 3256-3278	2.1	130
3	Potential Vorticity and Layer Thickness Variations in the Flow around Jupiter's Great Red Spot and White Oval BC. *Journals of the Atmospheric Sciences*, **1988**, 45, 1380-1396	2.1	69
2	Voyager 2 in the uranian system: imaging science results. *Science*, **1986**, 233, 43-64	33.3	348
1	Jupiter		1