Kevin Baines

List of Publications by Year
in descending order

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121 papers	6,997 citations	44444 50 h-index	71088 80 g-index
122 all docs	122 docs citations	122 times ranked	2956 citing authors

#	Article	IF	Citations
1	Saturn's Weatherâ€Driven Aurorae Modulate Oscillations in the Magnetic Field and Radio Emissions. Geophysical Research Letters, 2022, 49, .	1.5	9
2	Convective storms in closed cyclones in Jupiter's South Temperate Belt: (I) observations. Icarus, 2022, 380, 114994.	1.1	5
3	Investigation of Venus Cloud Aerosol and Gas Composition Including Potential Biogenic Materials via an Aerosol-Sampling Instrument Package. Astrobiology, 2021, 21, 1316-1323.	1.5	14
4	Venus, an Astrobiology Target. Astrobiology, 2021, 21, 1163-1185.	1.5	38
5	Vertical Structure and Color of Jovian Latitudinal Cloud Bands during the Juno Era. Planetary Science Journal, 2021, 2, 16.	1.5	7
6	Occultation observations of Saturn's rings with Cassini VIMS. Icarus, 2020, 344, 113356.	1.1	6
7	Spatio-temporal Variation of Bright Ephemeral Features on Titanâ€™s North Pole. Planetary Science Journal, 2020, 1, 31.	1.5	7
8	Local-time averaged maps of H ₃ ⁺ emission, temperature and ion winds. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2019, 377, 20180405.	1.6	11
9	Observations of the chemical and thermal response of â€˜ring rainâ€™ on Saturnâ€™s ionosphere. Icarus, 2019, 322, 251-260.	1.1	22
10	Observational Evidence for Summer Rainfall at Titan's North Pole. Geophysical Research Letters, 2019, 46, 1205-1212.	1.5	14
11	Observational evidence for active dust storms on Titan at equinox. Nature Geoscience, 2018, 11, 727-732.	5.4	18
12	The Eye of Saturn's North Polar Vortex: Unexpected Cloud Structures Observed at High Spatial Resolution by Cassini/VIMS. Geophysical Research Letters, 2018, 45, 5867-5875.	1.5	6
13	The Search for Activity on Dione and Tethys WithCassiniVIMS and UVIS. Geophysical Research Letters, 2018, 45, 5860-5866.	1.5	4
14	Saturn's Global Zonal Winds Explored by Cassini/VIMS 5â€¼4m Images. Geophysical Research Letters, 2018, 45, 6823-6831.	1.5	11
15	An isolated, bright cusp aurora at Saturn. Journal of Geophysical Research: Space Physics, 2017, 122, 6121-6138.	0.8	9
16	Redetection of the Ionospheric Signature of Saturn's â€œRing Rainâ€• Geophysical Research Letters, 2017, 44, 11,762.	1.5	16
17	Meridional variation in tropospheric methane on Titan observed with AO spectroscopy at Keck and VLT. Icarus, 2016, 270, 376-388.	1.1	24
18	Cassini's geological and compositional view of Tethys. Icarus, 2016, 274, 1-22.	1.1	13

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19	Vortices in Saturn's Northern Hemisphere (2008â€“2015) observed by Cassini ISS. Journal of Geophysical Research E: Planets, 2016, 121, 1814-1826.	1.5	9
20	Ground-based observations of Saturnâ€™s auroral ionosphere over three days: Trends in <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" altimg="si3.gif" overflow="scroll"><mml:mrow><mml:msubsup><mml:mrow><mml:mtext>H</mml:mtext></mml:mrow><mml:mrow><mml:mn>3</mml:mn> temperature, density and emission with Saturn local time and planetary period oscillation. Icarus, 2016, 263, 44-55.	1.1	13
21	Spectral properties of Titan's impact craters imply chemical weathering of its surface. Geophysical Research Letters, 2015, 42, 3746-3754.	1.5	36
22	Cassini VIMS observations of H 3 + emission on the nightside of Jupiter. Journal of Geophysical Research: Space Physics, 2015, 120, 6948-6973.	0.8	12
23	Saturn's giant storm and global radiant energy. Geophysical Research Letters, 2015, 42, 2144-2148.	1.5	12
24	Dynamic auroral storms on Saturn as observed by the Hubble Space Telescope. Geophysical Research Letters, 2014, 41, 3323-3330.	1.5	43
25	Conjugate observations of Saturnâ€™s northern and southern <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" altimg="si22.gif" overflow="scroll"><mml:mrow><mml:msubsup><mml:mrow><mml:mi mathvariant="normal">H</mml:mi></mml:mrow><mml:mrow><mml:mn>3</mml:mn></mml:mrow><mml:mrow><mml:mo>+</mml: aurorae. Icarus, 2014, 229, 214-220.	1.1	29
26	Transient features in a Titan sea. Nature Geoscience, 2014, 7, 493-496.	5.4	43
27	Cassini/VIMS observes rough surfaces on Titanâ€™s Punga Mare in specular reflection. Planetary Science, 2014, 3, 3.	1.5	31
28	Evidence of Titanâ€™s climate history from evaporite distribution. Icarus, 2014, 243, 191-207.	1.1	62
29	Precipitation-induced surface brightenings seen on Titan by Cassini VIMS and ISS. Planetary Science, 2013, 2, .	1.5	45
30	Saturnâ€™s Great Storm of 2010â€“2011: Evidence for ammonia and water ices from analysis of VIMS spectra. Icarus, 2013, 226, 402-418.	1.1	50
31	An observed correlation between plume activity and tidal stresses on Enceladus. Nature, 2013, 500, 182-184.	13.7	136
32	The temporal evolution of the July 2009 Jupiter impact cloud. Planetary and Space Science, 2013, 77, 25-39.	0.9	3
33	The temperature and width of an active fissure on Enceladus measured with Cassini VIMS during the 14 April 2012 South Pole flyover. Icarus, 2013, 226, 1128-1137.	1.1	69
34	The domination of Saturnâ€™s low-latitude ionosphere by ring â€˜rainâ€™. Nature, 2013, 496, 193-195.	13.7	70
35	A TRANSMISSION SPECTRUM OF TITAN'S NORTH POLAR ATMOSPHERE FROM A SPECULAR REFLECTION OF THE SUN. Astrophysical Journal, 2013, 777, 161.	1.6	23
36	Temperature changes and energy inputs in giant planet atmospheres: what we are learning from H ₃ ⁺. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2012, 370, 5213-5224.	1.6	29

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37	Peak emission altitude of Saturn's H₃⁺ aurora. Geophysical Research Letters, 2012, 39, .	1.5	25
38	Rotational modulation and local time dependence of Saturn's infrared H₃⁺ auroral intensity. Journal of Geophysical Research, 2012, 117, .	3.3	33
39	Global mapping of Titanâ€²s surface using an empirical processing method for the atmospheric and photometric correction of Cassini/VIMS images. Planetary and Space Science, 2012, 73, 178-190.	0.9	24
40	Modeling specular reflections from hydrocarbon lakes on Titan. Icarus, 2012, 220, 744-751.	1.1	31
41	CASSINI VIMS OBSERVATIONS SHOW ETHANE IS PRESENT IN TITAN'S RAINFALL. Astrophysical Journal Letters, 2012, 761, L24.	3.0	10
42	Uranus Pathfinder: exploring the origins and evolution of Ice Giant planets. Experimental Astronomy, 2012, 33, 753-791.	1.6	44
43	The 2010 European Venus Explorer (EVE) mission proposal. Experimental Astronomy, 2012, 33, 305-335.	1.6	20
44	Quantification of middle and lower cloud variability and mesoscale dynamics from Venus Express/VIRTIS observations at 1.74Î¼m. Icarus, 2012, 217, 615-628.	1.1	19
45	The surface composition of Iapetus: Mapping results from Cassini VIMS. Icarus, 2012, 218, 831-860.	1.1	136
46	Dissipation of Titan's north polar cloud at northern spring equinox. Planetary and Space Science, 2012, 60, 86-92.	0.9	33
47	The Saturnian satellite Rhea as seen by Cassini VIMS. Planetary and Space Science, 2012, 61, 142-160.	0.9	38
48	Saturnâ€™s tropospheric composition and clouds from Cassini/VIMS 4.6â€“5.1Î¼m nightside spectroscopy. Icarus, 2011, 214, 510-533.	1.1	84
49	Organic sedimentary deposits in Titanâ€™s dry lakebeds: Probable evaporite. Icarus, 2011, 216, 136-140.	1.1	96
50	Cassini VIMS observations of latitudinal and hemispheric variations in Saturnâ€™s infrared auroral intensity. Icarus, 2011, 216, 367-375.	1.1	23
51	Wave constraints for Titanâ€™s Jingpo Lacus and Kraken Mare from VIMS specular reflection lightcurves. Icarus, 2011, 211, 722-731.	1.1	38
52	Thermal Structure and Dynamics of Saturnâ€™s Northern Springtime Disturbance. Science, 2011, 332, 1413-1417.	6.0	75
53	Equatorial winds on Saturn and the stratosphericÂoscillation. Nature Geoscience, 2011, 4, 750-752.	5.4	16
54	Detection and mapping of hydrocarbon deposits on Titan. Journal of Geophysical Research, 2010, 115, .	3.3	147

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55	Carbon dioxide on the satellites of Saturn: Results from the Cassini VIMS investigation and revisions to the VIMS wavelength scale. Icarus, 2010, 206, 561-572.	1.1	78
56	Dioneâ€™s spectral and geological properties. Icarus, 2010, 206, 631-652.	1.1	61
57	Latitudinal variations in Titanâ€™s methane and haze from Cassini VIMS observations. Icarus, 2010, 206, 352-365.	1.1	28
58	Atmospheric control of the cooling rate of impact melts and cryolavas on Titanâ€™s surface. Icarus, 2010, 208, 887-895.	1.1	14
59	Geology of the Selk crater region on Titan from Cassini VIMS observations. Icarus, 2010, 208, 905-912.	1.1	44
60	Specular reflection on Titan: Liquids in Kraken Mare. Geophysical Research Letters, 2010, 37, .	1.5	69
61	Systematic detection of Titan's clouds in VIMS/Cassini hyperspectral images using a new automated algorithm. , 2010, , .		0
62	CHARACTERIZATION OF CLOUDS IN TITAN'S TROPICAL ATMOSPHERE. Astrophysical Journal, 2009, 702, L105-L109.	1.6	35
63	VIMS spectral mapping observations of Titan during the Cassini prime mission. Planetary and Space Science, 2009, 57, 1950-1962.	0.9	28
64	Storm clouds on Saturn: Lightning-induced chemistry and associated materials consistent with Cassini/VIMS spectra. Planetary and Space Science, 2009, 57, 1650-1658.	0.9	43
65	Saturn's north polar cyclone and hexagon at depth revealed by Cassini/VIMS. Planetary and Space Science, 2009, 57, 1671-1681.	0.9	85
66	The geology of Hotei Regio, Titan: Correlation of Cassini VIMS and RADAR. Icarus, 2009, 204, 610-618.	1.1	62
67	European Venus Explorer (EVE): an in-situ mission to Venus. Experimental Astronomy, 2009, 23, 741-760.	1.6	9
68	TandEM: Titan and Enceladus mission. Experimental Astronomy, 2009, 23, 893-946.	1.6	77
69	Global circulation as the main source of cloud activity on Titan. Nature, 2009, 459, 678-682.	13.7	76
70	Shoreline features of Titan's Ontario Lacus from Cassini/VIMS observations. Icarus, 2009, 201, 217-225.	1.1	69
71	Saturn's south polar vortex compared to other large vortices in the Solar System. Icarus, 2009, 202, 240-248.	1.1	50
72	Compositional mapping of Saturn's satellite Dione with Cassini VIMS and implications of dark material in the Saturn system. Icarus, 2008, 193, 372-386.	1.1	135

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73	A close look at Saturn's rings with Cassini VIMS. Icarus, 2008, 193, 182-212.	1.1	113
74	Spectroscopy, morphometry, and photoclinometry of Titan's dunefields from Cassini/VIMS. Icarus, 2008, 195, 400-414.	1.1	125
75	Fluvial erosion and post-erosional processes on Titan. Icarus, 2008, 197, 526-538.	1.1	88
76	Semi-annual oscillations in Saturnâ€™s low-latitude stratospheric temperatures. Nature, 2008, 453, 196-199.	13.7	77
77	The identification of liquid ethane in Titanâ€™s Ontario Lacus. Nature, 2008, 454, 607-610.	13.7	254
78	Complex structure within Saturnâ€™s infrared aurora. Nature, 2008, 456, 214-217.	13.7	42
79	CHANGING CHARACTERISTICS OF JUPITER'S LITTLE RED SPOT. Astronomical Journal, 2008, 135, 2446-2452.	1.9	33
80	Polar Lightning and Decadal-Scale Cloud Variability on Jupiter. Science, 2007, 318, 226-229.	6.0	52
81	Self-Gravity Wake Structures in Saturn's A Ring Revealed byCassiniVIMS. Astronomical Journal, 2007, 133, 2624-2629.	1.9	92
82	Jupiter Cloud Composition, Stratification, Convection, and Wave Motion: A View from New Horizons. Science, 2007, 318, 223-225.	6.0	48
83	Global-scale surface spectral variations on Titan seen from Cassini/VIMS. Icarus, 2007, 186, 242-258.	1.1	110
84	Saturn's dynamic D ring. Icarus, 2007, 188, 89-107.	1.1	50
85	Correlations between Cassini VIMS spectra and RADAR SAR images: Implications for Titan's surface composition and the character of the Huygens Probe Landing Site. Planetary and Space Science, 2007, 55, 2025-2036.	0.9	168
86	Surface composition of Hyperion. Nature, 2007, 448, 54-56.	13.7	56
87	A dynamic upper atmosphere of Venus as revealed by VIRTIS on Venus Express. Nature, 2007, 450, 641-645.	13.7	95
88	South-polar features on Venus similar to those near the north pole. Nature, 2007, 450, 637-640.	13.7	110
89	To the depths of Venus: Exploring the deep atmosphere and surface of our sister world with Venus Express. Planetary and Space Science, 2006, 54, 1263-1278.	0.9	26
90	On the discovery of CO nighttime emissions on Titan by Cassini/VIMS: Derived stratospheric abundances and geological implications. Planetary and Space Science, 2006, 54, 1552-1562.	0.9	27

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91	Evidence for a Polar Ethane Cloud on Titan. Science, 2006, 313, 1620-1622.	6.0	161
92	Composition and Physical Properties of Enceladus' Surface. Science, 2006, 311, 1425-1428.	6.0	199
93	Cassini Visual and Infrared Mapping Spectrometer Observations of Iapetus: Detection of CO 2. Astrophysical Journal, 2005, 622, L149-L152.	1.6	94
94	A 5-Micron-Bright Spot on Titan: Evidence for Surface Diversity. Science, 2005, 310, 92-95.	6.0	78
95	Compositional maps of Saturn's moon Phoebe from imaging spectroscopy. Nature, 2005, 435, 66-69.	13.7	155
96	Release of volatiles from a possible cryovolcano from near-infrared imaging of Titan. Nature, 2005, 435, 786-789.	13.7	208
97	The Cassini Visual And Infrared Mapping Spectrometer (Vims) Investigation. Space Science Reviews, 2004, 115, 111-168.	3.7	369
98	Fresh Ammonia Ice Clouds in Jupiter. Icarus, 2002, 159, 74-94.	1.1	92
99	Near-Infrared Observations of Neptuneâ€™s Tropospheric Cloud Layer with the Lick Observatory Adaptive Optics System. Astronomical Journal, 2001, 122, 1636-1643.	1.9	11
100	Detection of Sub-Micron Radiation from the Surface of Venus by Cassini/VIMS. Icarus, 2000, 148, 307-311.	1.1	62
101	Near-Infrared Absolute Photometric Imaging of the Uranian System. Icarus, 1998, 132, 266-284.	1.1	31
102	The Abundances of Methane and Ortho/Para Hydrogen on Uranus and Neptune: Implications of New Laboratory 4-0 H2 Quadrupole Line Parameters. Icarus, 1995, 114, 328-340.	1.1	115
103	Impact debris particles in Jupiter's stratosphere. Science, 1995, 267, 1296-1301.	6.0	109
104	Galileo infrared observations of the Shoemaker-Levy 9 G Impact Fireball: A Preliminary report. Geophysical Research Letters, 1995, 22, 1557-1560.	1.5	47
105	Clouds, Hazes, and the Stratospheric Methane Abundance in Neptune. Icarus, 1994, 109, 20-39.	1.1	68
106	Spatial Organization and Time Dependence of Jupiter's Tropospheric Temperatures, 1980-1993. Science, 1994, 265, 625-631.	6.0	58
107	Impact winter and the Cretaceous/Tertiary extinctions: Results of a Chicxulub asteroid impact model. Earth and Planetary Science Letters, 1994, 128, 719-725.	1.8	149
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109	Galileo Infrared Imaging Spectroscopy Measurements at Venus. Science, 1991, 253, 1541-1548.	6.0	156
110	Absorption coefficients for the 6190-Ã... CH4 band between 290 and 100Â°K with application to Uranus' atmosphere. Icarus, 1990, 85, 58-64.	1.1	25
111	The atmospheric structure and dynamical properties of Neptune derived from ground-based and IUE spectrophotometry. Icarus, 1990, 85, 65-108.	1.1	79
112	H2 S3(1) and S4(1) transitions in the atmospheres of Neptune and Uranus: Observations and analysis. Icarus, 1990, 85, 109-119.	1.1	9
113	Calibration of the 7- to 14-Î¼m brightness spectra of Uranus and Neptune. Icarus, 1990, 85, 257-265.	1.1	25
114	D/H for Uranus and Neptune. Astrophysical Journal, 1989, 336, 962.	1.6	20
115	The D/H ratio for Jupiter. Astrophysical Journal, 1989, 336, 967.	1.6	25
116	Limits on the diurnal variation of H2 quadrupole features in Neptune. Astrophysical Journal, 1989, 343, 450.	1.6	4
117	Infrared radiometry of Uranus and Neptune at 21 and 32 Î¼m. Icarus, 1987, 69, 230-238.	1.1	8
118	The structure of the Uranian atmosphere: Constraints from the geometric albedo spectrum and H2 and CH4 line profiles. Icarus, 1986, 65, 406-441.	1.1	69
119	Estimates of the bolometric albedos and radiation balance of Uranus and Neptune. Icarus, 1986, 65, 442-466.	1.1	75
120	High-resolution observations of the 6815-Ã... band of methane in the major planets. Icarus, 1983, 56, 534-542.	1.1	13
121	Interpretation of the 6818.9-Ã... methane feature observed on Jupiter, Saturn, and Uranus. Icarus, 1983, 56, 543-559.	1.1	25