

Tom S Stallard

List of Publications by Year in descending order

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97
papers

3,098
citations

126907

33
h-index

175258

52
g-index

99
all docs

99
docs citations

99
times ranked

1343
citing authors

#	ARTICLE	IF	CITATIONS
1	Deep Impact: Observations from a Worldwide Earth-Based Campaign. <i>Science</i> , 2005, 310, 265-269.	12.6	182
2	Response of Jupiter's and Saturn's auroral activity to the solar wind. <i>Journal of Geophysical Research</i> , 2009, 114, .	3.3	161
3	Jupiter's polar ionospheric flows: Theoretical interpretation. <i>Geophysical Research Letters</i> , 2003, 30, n/a-n/a.	4.0	138
4	Auroral evidence of Io's control over the magnetosphere of Jupiter. <i>Geophysical Research Letters</i> , 2012, 39, .	4.0	111
5	The role of H ₃ ⁺ in planetary atmospheres. <i>Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences</i> , 2000, 358, 2485-2502.	3.4	106
6	On the Dynamics of the Jovian Ionosphere and Thermosphere I. The Measurement of Ion Winds. <i>Icarus</i> , 2001, 154, 475-491.	2.5	88
7	Jupiter's polar ionospheric flows: Measured intensity and velocity variations poleward of the main auroral oval. <i>Geophysical Research Letters</i> , 2003, 30, n/a-n/a.	4.0	81
8	On the Dynamics of the Jovian Ionosphere and Thermosphere II. The Measurement of H ₃ ⁺ Vibrational Temperature, Column Density, and Total Emission. <i>Icarus</i> , 2002, 156, 498-514.	2.5	74
9	Multispectral simultaneous diagnosis of Saturn's aurorae throughout a planetary rotation. <i>Journal of Geophysical Research: Space Physics</i> , 2013, 118, 4817-4843.	2.4	74
10	On the Dynamics of the Jovian Ionosphere and Thermosphere III. The Modelling of Auroral Conductivity. <i>Icarus</i> , 2002, 160, 95-107.	2.5	71
11	The domination of Saturn's low-latitude ionosphere by ring rain. <i>Nature</i> , 2013, 496, 193-195.	27.8	70
12	Response of Jupiter's auroras to conditions in the interplanetary medium as measured by the Hubble Space Telescope and Juno. <i>Geophysical Research Letters</i> , 2017, 44, 7643-7652.	4.0	68
13	Ion winds in Saturn's southern auroral/polar region. <i>Icarus</i> , 2004, 167, 204-211.	2.5	66
14	H ₃ ⁺ cooling in planetary atmospheres. <i>Faraday Discussions</i> , 2010, 147, 283.	3.2	61
15	Supersonic winds in Jupiter's aurorae. <i>Nature</i> , 1999, 399, 121-124.	27.8	60
16	The science case for an orbital mission to Uranus: Exploring the origins and evolution of ice giant planets. <i>Planetary and Space Science</i> , 2014, 104, 122-140.	1.7	56
17	Variability in the H ₃ emission of Saturn: Consequences for ionisation rates and temperature. <i>Icarus</i> , 2007, 186, 234-241.	2.5	53
18	On the dynamics of the jovian ionosphere and thermosphere.. <i>Icarus</i> , 2005, 173, 200-211.	2.5	51

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19	Earth-based detection of Uranus' aurorae. <i>Geophysical Research Letters</i> , 2012, 39, .	4.0	51
20	Estimated energy balance in the jovian upper atmosphere during an auroral heating event. <i>Icarus</i> , 2006, 181, 256-265.	2.5	48
21	: the driver of giant planet atmospheres. <i>Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences</i> , 2006, 364, 3121-3137.	3.4	47
22	Cassini observations of ion and electron beams at Saturn and their relationship to infrared auroral arcs. <i>Journal of Geophysical Research</i> , 2012, 117, .	3.3	47
23	Uranus Pathfinder: exploring the origins and evolution of Ice Giant planets. <i>Experimental Astronomy</i> , 2012, 33, 753-791.	3.7	44
24	Jovian-like aurorae on Saturn. <i>Nature</i> , 2008, 453, 1083-1085.	27.8	43
25	Dynamic auroral storms on Saturn as observed by the Hubble Space Telescope. <i>Geophysical Research Letters</i> , 2014, 41, 3323-3330.	4.0	43
26	Complex structure within Saturn's infrared aurora. <i>Nature</i> , 2008, 456, 214-217.	27.8	42
27	The [FORMULA] [F] [RM] H [RM] [SUP] + [/SUP] [INF] 3 [/INF] [/F] [/FORMULA] Latitudinal Profile of Saturn. <i>Astrophysical Journal</i> , 1999, 521, L149-L152.	4.5	40
28	Saturn's auroral/polar H ₃ ⁺ infrared emission. <i>Icarus</i> , 2007, 189, 1-13.	2.5	40
29	First Vertical Ion Density Profile in Jupiter's Auroral Atmosphere: Direct Observations Using the Keck II Telescope. <i>Astrophysical Journal</i> , 2008, 677, 790-797.	4.5	40
30	Episodic bright and dark spots on Uranus. <i>Icarus</i> , 2012, 220, 6-22.	2.5	39
31	Non-LTE effects on H ₃ ⁺ emission in the jovian upper atmosphere. <i>Icarus</i> , 2005, 178, 97-103.	2.5	38
32	Saturn's equinoctial auroras. <i>Geophysical Research Letters</i> , 2009, 36, .	4.0	37
33	Simultaneous Cassini VIMS and UVIS observations of Saturn's southern aurora: Comparing emissions from H, H ₂ ⁺ and H ₃ ⁺ at a high spatial resolution. <i>Geophysical Research Letters</i> , 2011, 38, .	4.0	37
34	Auroral Processes. , 2009, , 333-374.		34
35	Rotational modulation and local time dependence of Saturn's infrared H ₃ ⁺ auroral intensity. <i>Journal of Geophysical Research</i> , 2012, 117, .	3.3	33
36	Cooling by H ₃ ⁺ Emission. <i>Journal of Physical Chemistry A</i> , 2013, 117, 9770-9777.	2.5	33

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37	Heating of Jupiter's upper atmosphere above the Great Red Spot. <i>Nature</i> , 2016, 536, 190-192.	27.8	32
38	Thirty years of H_3 astronomy. <i>Reviews of Modern Physics</i> , 2020, 92, .	45.6	32
39	Saturn's auroral/polar H_3 infrared emission. <i>Icarus</i> , 2007, 191, 678-690.	2.5	29
40	Temperature changes and energy inputs in giant planet atmospheres: what we are learning from H_3 . <i>Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences</i> , 2012, 370, 5213-5224.	3.4	29
41	Conjugate observations of Saturn's northern and southern aurorae. <i>Icarus</i> , 2014, 229, 214-220.	2.5	29
42	Location of Saturn's northern infrared aurora determined from Cassini VIMS images. <i>Geophysical Research Letters</i> , 2011, 38, n/a-n/a.	4.0	28
43	Saturn's auroral morphology and field-aligned currents during a solar wind compression. <i>Icarus</i> , 2016, 263, 83-93.	2.5	26
44	Peak emission altitude of Saturn's H_3 aurora. <i>Geophysical Research Letters</i> , 2012, 39, .	4.0	25
45	The aurorae of Uranus past equinox. <i>Journal of Geophysical Research: Space Physics</i> , 2017, 122, 3997-4008.	2.4	24
46	Cassini VIMS observations of latitudinal and hemispheric variations in Saturn's infrared auroral intensity. <i>Icarus</i> , 2011, 216, 367-375.	2.5	23
47	Post-equinoctial observations of the ionosphere of Uranus. <i>Icarus</i> , 2013, 223, 741-748.	2.5	23
48	Jupiter's polar ionospheric flows: High resolution mapping of spectral intensity and line-of-sight velocity of H_3 ions. <i>Journal of Geophysical Research: Space Physics</i> , 2017, 122, 7599-7618.	2.4	23
49	Observations of the chemical and thermal response of the ring rain on Saturn's ionosphere. <i>Icarus</i> , 2019, 322, 251-260.	2.5	22
50	SEASONAL VARIABILITY IN THE IONOSPHERE OF URANUS. <i>Astrophysical Journal</i> , 2011, 729, 134.	4.5	22
51	LOCATION AND MAGNETOSPHERIC MAPPING OF SATURN'S MID-LATITUDE INFRARED AURORAL OVAL. <i>Astrophysical Journal Letters</i> , 2010, 722, L85-L89.	8.3	21
52	Mapping H_3 Temperatures in Jupiter's Northern Auroral Ionosphere Using VLT-CRILES. <i>Journal of Geophysical Research: Space Physics</i> , 2018, 123, 5990-6008.	2.4	21
53	The United Kingdom Infrared Telescope Deep Impact observations: Light curve, ejecta expansion rates and water spectral features. <i>Icarus</i> , 2007, 191, 371-380.	2.5	19
54	On the anticorrelation between H_3^+ temperature and density in giant planet ionospheres. <i>Monthly Notices of the Royal Astronomical Society</i> , 2014, 438, 1611-1617.	4.4	17

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55	Stability within Jupiter's polar auroral "Swirl region" over moderate timescales. <i>Icarus</i> , 2016, 268, 145-155.	2.5	17
56	Identification of Jupiter's magnetic equator through H ₃ ⁺ ionospheric emission. <i>Nature Astronomy</i> , 2018, 2, 773-777.	10.1	17
57	Redetection of the Ionospheric Signature of Saturn's "Ring Rain". <i>Geophysical Research Letters</i> , 2017, 44, 11,762.	4.0	16
58	Global upper-atmospheric heating on Jupiter by the polar aurorae. <i>Nature</i> , 2021, 596, 54-57.	27.8	16
59	The H ₃ ⁺ ionosphere of Uranus: decades-long cooling and local-time morphology. <i>Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences</i> , 2019, 377, 20180408.	3.4	15
60	New limits on H ₃ abundance on Neptune using Keck NIRSPEC. <i>Monthly Notices of the Royal Astronomical Society</i> , 2011, 410, 641-644.	4.4	14
61	Variability of Jupiter's IR H ₃ ⁺ aurorae during Juno approach. <i>Geophysical Research Letters</i> , 2017, 44, 4513-4522.	4.0	14
62	The quest for H ₃ ⁺ at Neptune: deep burn observations with NASA IRTF iSHELL. <i>Monthly Notices of the Royal Astronomical Society</i> , 2018, 474, 3714-3719.	4.4	14
63	The United Kingdom Infrared Telescope Deep Impact observations: Light curve, ejecta expansion rates and water spectral features. <i>Icarus</i> , 2007, 187, 167-176.	2.5	13
64	Saturn's auroral/polar H ₃ ⁺ infrared emission: The effect of solar wind compression. <i>Journal of Geophysical Research</i> , 2012, 117, .	3.3	13
65	Ground-based observations of Saturn's auroral ionosphere over three days: Trends in temperature, density and emission with Saturn local time and planetary period oscillation. <i>Icarus</i> , 2016, 263, 44-55.	2.5	13
66	Saturn kilometric radiation intensities during the Saturn auroral campaign of 2013. <i>Icarus</i> , 2016, 263, 2-9.	2.5	13
67	Cassini VIMS observations of H ₃ ⁺ emission on the nightside of Jupiter. <i>Journal of Geophysical Research: Space Physics</i> , 2015, 120, 6948-6973.	2.4	12
68	Local-time averaged maps of H ₃ ⁺ emission, temperature and ion winds. <i>Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences</i> , 2019, 377, 20180405.	3.4	11
69	Neptune Odyssey: A Flagship Concept for the Exploration of the Neptune-Triton System. <i>Planetary Science Journal</i> , 2021, 2, 184.	3.6	11
70	Emission-Line Imaging of Saturn's H ₃ ⁺ Aurora. <i>Astrophysical Journal</i> , 2008, 675, L117-L120.	4.5	10
71	Simultaneous multi-scale and multi-instrument observations of Saturn's aurorae during the 2013 observing campaign. <i>Icarus</i> , 2016, 263, 56-74.	2.5	10
72	Modelling H ₃ ⁺ in planetary atmospheres: effects of vertical gradients on observed quantities. <i>Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences</i> , 2019, 377, 20190067.	3.4	10

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73	Detection of H ₃ ⁺ auroral emission in Jupiter's 5-micron window. <i>Astronomy and Astrophysics</i> , 2016, 589, A67.	5.1	9
74	Jupiter's hydrogen bulge: A Cassini perspective. <i>Icarus</i> , 2016, 278, 238-247.	2.5	9
75	Saturn's Weather-Driven Aurorae Modulate Oscillations in the Magnetic Field and Radio Emissions. <i>Geophysical Research Letters</i> , 2022, 49, .	4.0	9
76	Dusk-brightening Event in Saturn's H ₃ ⁺ Aurora. <i>Astrophysical Journal</i> , 2008, 673, L203-L206.	4.5	8
77	Infrared spectroscopic studies of the jovian ionosphere and aurorae. <i>Advances in Space Research</i> , 2000, 26, 1477-1488.	2.6	7
78	The Great Cold Spot in Jupiter's upper atmosphere. <i>Geophysical Research Letters</i> , 2017, 44, 3000-3008.	4.0	7
79	Exploring Key Characteristics in Saturn's Infrared Auroral Emissions Using VLT-CRISP: Intensities, Ion Line-of-Sight Velocities, and Rotational Temperatures. <i>Geophysical Research Letters</i> , 2019, 46, 7137-7146.	4.0	7
80	Magnetic Reconnection Near the Planet as a Possible Driver of Jupiter's Mysterious Polar Auroras. <i>Journal of Geophysical Research: Space Physics</i> , 2021, 126, e2021JA029544.	2.4	7
81	Measurements of the rotation rate of the jovian mid-to-low latitude ionosphere. <i>Icarus</i> , 2016, 280, 249-254.	2.5	6
82	Saturn's Seasonally Changing Atmosphere. , 2018, , 251-294.		6
83	Why is the H ₃ ⁺ hot spot above Jupiter's Great Red Spot so hot?. <i>Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences</i> , 2019, 377, 20180407.	3.4	6
84	Variability of Jovian ion winds: an upper limit for enhanced Joule heating. <i>Annales Geophysicae</i> , 2007, 25, 847-853.	1.6	5
85	Clues on Ionospheric Electrodynamics From Ir Aurora at Jupiter and Saturn. <i>Geophysical Monograph Series</i> , 0, , 215-224.	0.1	5
86	Atmospheric implications of the lack of H ₃ ⁺ detection at Neptune. <i>Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences</i> , 2020, 378, 20200100.	3.4	4
87	Saturn's Ionosphere. , 2018, , 196-223.		3
88	Global Configuration and Seasonal Variations of Saturn's Magnetosphere. , 2018, , 126-165.		2
89	R-band light curve of Comet 9P/Tempel 1 during the Deep Impact event. <i>Icarus</i> , 2010, 205, 619-626.	2.5	1
90	Saturn's Aurorae. , 2018, , 166-195.		1

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91	Spectral characteristics and formation of high-altitude haze in the south-polar regions of Saturn. Icarus, 2019, 321, 436-444.	2.5	1
92	The Importance of Exploring Neptune's Auroras and Ionosphere. , 2021, 53, .		1
93	Correction to "Cassini observations of ion and electron beams at Saturn and their relationship to infrared auroral arcs". Journal of Geophysical Research, 2012, 117, .	3.3	0
94	The surprising southern aurora. Nature Astronomy, 2017, 1, 755-756.	10.1	0
95	Saturn's Variable Thermosphere. , 2018, , 224-250.		0
96	The Future Exploration of Saturn. , 2018, , 417-441.		0
97	Previously Unobserved Water Lines Detected in the Post-Impact Spectrum. Globular Clusters - Guides To Galaxies, 2009, , 3-10.	0.1	0