

# Jessica J Barnes

## List of Publications by Year in descending order

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112  
papers

8,885  
citations

66343

42  
h-index

42399

92  
g-index

113  
all docs

113  
docs citations

113  
times ranked

5067  
citing authors

#	ARTICLE	IF	CITATIONS
1	Science goals and new mission concepts for future exploration of Titan's atmosphere, geology and habitability: titan POLar scout/orbitEr and in situ lake lander and DrONE explorer (POSEIDON). <i>Experimental Astronomy</i> , 2022, 54, 911-973.	3.7	5
2	Near-surface structure of a large linear dune and an associated crossing dune of the northern Namib Sand Sea from Ground Penetrating Radar: Implications for the history of large linear dunes on Earth and Titan. <i>Aeolian Research</i> , 2022, 57, 100813.	2.7	3
3	Constraints on Sub-Neptune Planet Candidate KOI-972.01 via Joint Variability/Gravity-darkening Analysis. <i>Planetary Science Journal</i> , 2021, 2, 35.	3.6	0
4	Selection and Characteristics of the Dragonfly Landing Site near Selk Crater, Titan. <i>Planetary Science Journal</i> , 2021, 2, 24.	3.6	36
5	Solving the Alhazen's "Ptolemy Problem: Determining Specular Points on Spherical Surfaces for Radiative Transfer of Titan's Seas. <i>Planetary Science Journal</i> , 2021, 2, 63.	3.6	0
6	Lower Surface Temperature at Bright Ephemeral Feature Site on Titan's North Pole. <i>Geophysical Research Letters</i> , 2021, 48, e2020GL091708.	4.0	3
7	Titan: Earth-like on the Outside, Ocean World on the Inside. <i>Planetary Science Journal</i> , 2021, 2, 112.	3.6	21
8	Science Goals and Objectives for the Dragonfly Titan Rotorcraft Relocatable Lander. <i>Planetary Science Journal</i> , 2021, 2, 130.	3.6	80
9	Exploring Tidal Obliquity Variations with SMERCURY-T. <i>Planetary Science Journal</i> , 2021, 2, 187.	3.6	1
10	Protein Stability in Titan's Subsurface Water Ocean. <i>Astrobiology</i> , 2020, 20, 190-198.	3.0	1
11	Obliquity Evolution of the Potentially Habitable Exoplanet Kepler-62f. <i>Astrobiology</i> , 2020, 20, 73-90.	3.0	11
12	Dust Devils on Titan. <i>Journal of Geophysical Research E: Planets</i> , 2020, 125, e2019JE006238.	3.6	3
13	KELT-9's Asymmetric TESS Transit Caused by Rapid Stellar Rotation and Spin-Orbit Misalignment. <i>Astronomical Journal</i> , 2020, 160, 4.	4.7	37
14	Retrograde-rotating Exoplanets Experience Obliquity Excitations in an Eccentricity-enabled Resonance. <i>Planetary Science Journal</i> , 2020, 1, 8.	3.6	4
15	Diffraction-limited Titan Surface Imaging from Orbit Using Near-infrared Atmospheric Windows. <i>Planetary Science Journal</i> , 2020, 1, 24.	3.6	2
16	Spatio-temporal Variation of Bright Ephemeral Features on Titan's North Pole. <i>Planetary Science Journal</i> , 2020, 1, 31.	3.6	7
17	Tidal Currents Detected in Kraken Mare Straits from Cassini VIMS Sun Glitter Observations. <i>Planetary Science Journal</i> , 2020, 1, 35.	3.6	1
18	Dealing With $\delta$ -Scuti Variables: Transit Light Curve Analysis of Planets Orbiting Rapidly Rotating, Seismically Active A/F Stars. <i>Astronomical Journal</i> , 2019, 158, 88.	4.7	9

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19	Hydrogen sensing in Titan's atmosphere: Motivations and techniques. <i>Planetary and Space Science</i> , 2019, 174, 1-7.	1.7	5
20	The case for seasonal surface changes at Titan's lake district. <i>Nature Astronomy</i> , 2019, 3, 506-510.	10.1	19
21	Using Elliptical Fourier Descriptor Analysis (EFDA) to Quantify Titan Lake Morphology. <i>Astronomical Journal</i> , 2019, 158, 230.	4.7	5
22	Observational Evidence for Summer Rainfall at Titan's North Pole. <i>Geophysical Research Letters</i> , 2019, 46, 1205-1212.	4.0	14
23	A pilot investigation to constrain the presence of ring systems around transiting exoplanets. <i>New Astronomy</i> , 2018, 60, 88-94.	1.8	26
24	Strategies for Detecting Biological Molecules on Titan. <i>Astrobiology</i> , 2018, 18, 571-585.	3.0	33
25	Large catchment area recharges Titan's Ontario Lacus. <i>Icarus</i> , 2018, 299, 331-338.	2.5	13
26	Explorer of Enceladus and Titan (E2T): Investigating ocean worlds' evolution and habitability in the solar system. <i>Planetary and Space Science</i> , 2018, 155, 73-90.	1.7	26
27	LASR-guided stellar photometric variability subtraction. <i>Astronomy and Astrophysics</i> , 2018, 615, A128.	5.1	5
28	Titan's Twilight and Sunset Solar Illumination. <i>Astronomical Journal</i> , 2018, 156, 247.	4.7	3
29	Spherical Radiative Transfer in C++ (SRTC++): A Parallel Monte Carlo Radiative Transfer Model for Titan. <i>Astronomical Journal</i> , 2018, 155, 264.	4.7	6
30	Meridional variation in tropospheric methane on Titan observed with AO spectroscopy at Keck and VLT. <i>Icarus</i> , 2016, 270, 376-388.	2.5	24
31	COMPOSITIONAL SIMILARITIES AND DISTINCTIONS BETWEEN TITAN'S EVAPORITIC TERRAINS. <i>Astrophysical Journal</i> , 2016, 821, 17.	4.5	21
32	Obliquity Variability of a Potentially Habitable Early Venus. <i>Astrobiology</i> , 2016, 16, 487-499.	3.0	15
33	FOLLOW-UP OBSERVATIONS OF PTFO 8-8695: A 3 MYR OLD T TAURI STAR HOSTING A JUPITER-MASS PLANETARY CANDIDATE. <i>Astrophysical Journal</i> , 2015, 809, 42.	4.5	40
34	SPIN-ORBIT MISALIGNMENT OF TWO-PLANET-SYSTEM KOI-89 VIA GRAVITY DARKENING. <i>Astrophysical Journal</i> , 2015, 814, 67.	4.5	42
35	Global contraction/expansion and polar lithospheric thinning on Titan from patterns of tectonism. <i>Journal of Geophysical Research E: Planets</i> , 2015, 120, 1220-1236.	3.6	24
36	PROBABLE SPIN-ORBIT ALIGNED SUPER-EARTH PLANET CANDIDATE KOI2138. <i>Astrophysical Journal Letters</i> , 2015, 808, L38.	8.3	34

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37	Possible temperate lakes on Titan. <i>Icarus</i> , 2015, 257, 313-323.	2.5	13
38	Production and global transport of Titan's sand particles. <i>Planetary Science</i> , 2015, 4, .	1.5	35
39	Titan's surface and atmosphere as seen by the vims hyperspectral imager onboard cassini. , 2014, , .		0
40	Longevity of moons around habitable planets. <i>International Journal of Astrobiology</i> , 2014, 13, 324-336.	1.6	30
41	SPIN-ORBIT ALIGNMENT FOR 110 DAY PERIOD KOI368.01 FROM GRAVITY DARKENING. <i>Astrophysical Journal</i> , 2014, 786, 131.	4.5	24
42	Global mapping and characterization of Titan's dune fields with Cassini: Correlation between RADAR and VIMS observations. <i>Icarus</i> , 2014, 230, 168-179.	2.5	68
43	Transient features in a Titan sea. <i>Nature Geoscience</i> , 2014, 7, 493-496.	12.9	43
44	Cassini/VIMS observes rough surfaces on Titan's Punga Mare in specular reflection. <i>Planetary Science</i> , 2014, 3, 3.	1.5	31
45	Evidence of Titan's climate history from evaporite distribution. <i>Icarus</i> , 2014, 243, 191-207.	2.5	62
46	Subsidence-induced methane clouds in Titan's winter polar stratosphere and upper troposphere. <i>Icarus</i> , 2014, 243, 129-138.	2.5	24
47	Precipitation-induced surface brightenings seen on Titan by Cassini VIMS and ISS. <i>Planetary Science</i> , 2013, 2, .	1.5	45
48	Dunes on planet Tatooine: Observation of barchan migration at the Star Wars film set in Tunisia. <i>Geomorphology</i> , 2013, 201, 264-271.	2.6	28
49	Cryovolcanism on Titan: New results from Cassini RADAR and VIMS. <i>Journal of Geophysical Research E: Planets</i> , 2013, 118, 416-435.	3.6	128
50	A global topographic map of Titan. <i>Icarus</i> , 2013, 225, 367-377.	2.5	70
51	A TRANSMISSION SPECTRUM OF TITAN'S NORTH POLAR ATMOSPHERE FROM A SPECULAR REFLECTION OF THE SUN. <i>Astrophysical Journal</i> , 2013, 777, 161.	4.5	23
52	MEASUREMENT OF SPIN-ORBIT MISALIGNMENT AND NODAL PRECESSION FOR THE PLANET AROUND PRE-MAIN-SEQUENCE STAR PTFO 8-8695 FROM GRAVITY DARKENING. <i>Astrophysical Journal</i> , 2013, 774, 53.	4.5	84
53	MOSTSPACE TELESCOPE PHOTOMETRY OF THE 2010 JANUARY TRANSIT OF EXTRASOLAR PLANET HD80606b. <i>Astrophysical Journal</i> , 2013, 762, 55.	4.5	37
54	OUTCOMES AND DURATION OF TIDAL EVOLUTION IN A STAR-PLANET-MOON SYSTEM. <i>Astrophysical Journal</i> , 2012, 754, 51.	4.5	70

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55	Global mapping of Titan's surface using an empirical processing method for the atmospheric and photometric correction of Cassini/VIMS images. <i>Planetary and Space Science</i> , 2012, 73, 178-190.	1.7	24
56	Modeling specular reflections from hydrocarbon lakes on Titan. <i>Icarus</i> , 2012, 220, 744-751.	2.5	31
57	Edge detection applied to Cassini images reveals no measurable displacement of Ontario Lacus' margin between 2005 and 2010. <i>Journal of Geophysical Research</i> , 2012, 117, .	3.3	18
58	Observations of Titan's Northern lakes at 5 $\frac{1}{4}$ m: Implications for the organic cycle and geology. <i>Icarus</i> , 2012, 221, 768-786.	2.5	72
59	<i>CASSINI</i> VIMS OBSERVATIONS SHOW ETHANE IS PRESENT IN TITAN'S RAINFALL. <i>Astrophysical Journal Letters</i> , 2012, 761, L24.	8.3	10
60	THE EVIL-MC MODEL FOR ELLIPSOIDAL VARIATIONS OF PLANET-HOSTING STARS AND APPLICATIONS TO THE HAT-P-7 SYSTEM. <i>Astrophysical Journal</i> , 2012, 751, 112.	4.5	62
61	Obliquity variations of a moonless Earth. <i>Icarus</i> , 2012, 217, 77-87.	2.5	75
62	Geomorphological significance of Ontario Lacus on Titan: Integrated interpretation of Cassini VIMS, ISS and RADAR data and comparison with the Etosha Pan (Namibia). <i>Icarus</i> , 2012, 218, 788-806.	2.5	55
63	Titan's fluvial valleys: Morphology, distribution, and spectral properties. <i>Planetary and Space Science</i> , 2012, 60, 34-51.	1.7	98
64	Mapping Titan's surface features within the visible spectrum via Cassini VIMS. <i>Planetary and Space Science</i> , 2012, 60, 52-61.	1.7	25
65	Dissipation of Titan's north polar cloud at northern spring equinox. <i>Planetary and Space Science</i> , 2012, 60, 86-92.	1.7	33
66	A newly discovered impact crater in Titan's Senkyo: Cassini VIMS observations and comparison with other impact features. <i>Planetary and Space Science</i> , 2012, 60, 18-25.	1.7	18
67	AVIATR—Aerial Vehicle for In-situ and Airborne Titan Reconnaissance. <i>Experimental Astronomy</i> , 2012, 33, 55-127.	3.7	45
68	Ice rafts not sails: Floating the rocks at Racetrack Playa. <i>American Journal of Physics</i> , 2011, 79, 37-42.	0.7	18
69	On Titan's Xanadu region. <i>Icarus</i> , 2011, 214, 556-560.	2.5	11
70	Titan's cloud seasonal activity from winter to spring with Cassini/VIMS. <i>Icarus</i> , 2011, 216, 89-110.	2.5	68
71	Organic sedimentary deposits in Titan's dry lakebeds: Probable evaporite. <i>Icarus</i> , 2011, 216, 136-140.	2.5	96
72	Wave constraints for Titan's Jingpo Lacus and Kraken Mare from VIMS specular reflection lightcurves. <i>Icarus</i> , 2011, 211, 722-731.	2.5	38

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73	Meteorological Conditions at Racetrack Playa, Death Valley National Park: Implications for Rock Production and Transport. <i>Journal of Applied Meteorology and Climatology</i> , 2011, 50, 2361-2375.	1.5	8
74	Rapid and Extensive Surface Changes Near Titan's Equator: Evidence of April Showers. <i>Science</i> , 2011, 331, 1414-1417.	12.6	184
75	MEASUREMENT OF THE SPIN-ORBIT MISALIGNMENT OF KOI-13.01 FROM ITS GRAVITY-DARKENED <i>KEPLER</i> TRANSIT LIGHTCURVE. <i>Astrophysical Journal, Supplement Series</i> , 2011, 197, 10.	7.7	120
76	Detection and mapping of hydrocarbon deposits on Titan. <i>Journal of Geophysical Research</i> , 2010, 115, .	3.3	147
77	Correlations between VIMS and RADAR data over the surface of Titan: Implications for Titan's surface properties. <i>Icarus</i> , 2010, 208, 366-384.	2.5	8
78	Geology of the Selk crater region on Titan from Cassini VIMS observations. <i>Icarus</i> , 2010, 208, 905-912.	2.5	44
79	Observations of a stationary mid-latitude cloud system on Titan. <i>Icarus</i> , 2010, 208, 868-877.	2.5	17
80	Using satellites to probe extrasolar planet formation. <i>Proceedings of the International Astronomical Union</i> , 2010, 6, .	0.0	2
81	Inexpensive Time-Lapse Digital Cameras for Studying Transient Meteorological Phenomena: Dust Devils and Playa Flooding. <i>Journal of Atmospheric and Oceanic Technology</i> , 2010, 27, 246-256.	1.3	25
82	Specular reflection on Titan: Liquids in Kraken Mare. <i>Geophysical Research Letters</i> , 2010, 37, .	4.0	69
83	Kepler Planet-Detection Mission: Introduction and First Results. <i>Science</i> , 2010, 327, 977-980.	12.6	2,848
84	Systematic detection of Titan's clouds in VIMS/Cassini hyperspectral images using a new automated algorithm. , 2010, , .		0
85	DETECTING THE WIND-DRIVEN SHAPES OF EXTRASOLAR GIANT PLANETS FROM TRANSIT PHOTOMETRY. <i>Astrophysical Journal</i> , 2009, 706, 877-884.	4.5	27
86	TRANSIT LIGHTCURVES OF EXTRASOLAR PLANETS ORBITING RAPIDLY ROTATING STARS. <i>Astrophysical Journal</i> , 2009, 705, 683-692.	4.5	136
87	Fast forward modeling of Titan's infrared spectra to invert VIMS/Cassini hyperspectral images. , 2009, , .		0
88	Analysis of a cryolava flow-like feature on Titan. <i>Planetary and Space Science</i> , 2009, 57, 870-879.	1.7	31
89	VIMS spectral mapping observations of Titan during the Cassini prime mission. <i>Planetary and Space Science</i> , 2009, 57, 1950-1962.	1.7	28
90	The geology of Hotei Regio, Titan: Correlation of Cassini VIMS and RADAR. <i>Icarus</i> , 2009, 204, 610-618.	2.5	62

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91	Global circulation as the main source of cloud activity on Titan. <i>Nature</i> , 2009, 459, 678-682.	27.8	76
92	Shoreline features of Titan's Ontario Lacus from Cassini/VIMS observations. <i>Icarus</i> , 2009, 201, 217-225.	2.5	69
93	Evidence for condensed-phase methane enhancement over Xanadu on Titan. <i>Planetary and Space Science</i> , 2009, 57, 1586-1595.	1.7	15
94	Mapping Products of Titan's Surface. , 2009, , 489-510.		5
95	Titan's surface: Search for spectral diversity and composition using the Cassini VIMS investigation. <i>Icarus</i> , 2008, 194, 212-242.	2.5	83
96	Spectroscopy, morphometry, and photoclinometry of Titan's dunefields from Cassini/VIMS. <i>Icarus</i> , 2008, 195, 400-414.	2.5	125
97	Fluvial erosion and post-erosional processes on Titan. <i>Icarus</i> , 2008, 197, 526-538.	2.5	88
98	The identification of liquid ethane in Titan's Ontario Lacus. <i>Nature</i> , 2008, 454, 607-610.	27.8	254
99	Mapping and interpretation of Sinlap crater on Titan using Cassini VIMS and RADAR data. <i>Journal of Geophysical Research</i> , 2008, 113, .	3.3	60
100	Planetary Radii across Five Orders of Magnitude in Mass and Stellar Insolation: Application to Transits. <i>Astrophysical Journal</i> , 2007, 659, 1661-1672.	4.5	790
101	Effects of Orbital Eccentricity on Extrasolar Planet Transit Detectability and Light Curves. <i>Publications of the Astronomical Society of the Pacific</i> , 2007, 119, 986-993.	3.1	116
102	Near-infrared spectral mapping of Titan's mountains and channels. <i>Journal of Geophysical Research</i> , 2007, 112, .	3.3	82
103	Global-scale surface spectral variations on Titan seen from Cassini/VIMS. <i>Icarus</i> , 2007, 186, 242-258.	2.5	110
104	Correlations between Cassini VIMS spectra and RADAR SAR images: Implications for Titan's surface composition and the character of the Huygens Probe Landing Site. <i>Planetary and Space Science</i> , 2007, 55, 2025-2036.	1.7	168
105	Cassini observations of flow-like features in western Tui Regio, Titan. <i>Geophysical Research Letters</i> , 2006, 33, .	4.0	66
106	Composition and Physical Properties of Enceladus' Surface. <i>Science</i> , 2006, 311, 1425-1428.	12.6	199
107	A 5-Micron-Bright Spot on Titan: Evidence for Surface Diversity. <i>Science</i> , 2005, 310, 92-95.	12.6	78
108	The Evolution of Titan's Mid-Latitude Clouds. <i>Science</i> , 2005, 310, 474-477.	12.6	139

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109	Transit Detectability of Ring Systems around Extrasolar Giant Planets. <i>Astrophysical Journal</i> , 2004, 616, 1193-1203.	4.5	105
110	Measuring the Oblateness and Rotation of Transiting Extrasolar Giant Planets. <i>Astrophysical Journal</i> , 2003, 588, 545-556.	4.5	118
111	Stability of Satellites around Closeby Extrasolar Giant Planets. <i>Astrophysical Journal</i> , 2002, 575, 1087-1093.	4.5	189
112	AAT Observations of the SL9 Fragment C, D, G, K, N, R, V, and W Impacts with Jupiter: Lightcurves and Imaging. <i>Icarus</i> , 2001, 152, 366-383.	2.5	3