

Sebastien Rodriguez

List of Publications by Year in descending order

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95
papers

4,209
citations

101543

36
h-index

118850

62
g-index

101
all docs

101
docs citations

101
times ranked

1905
citing authors

#	ARTICLE	IF	CITATIONS
1	Initial results from the InSight mission on Mars. <i>Nature Geoscience</i> , 2020, 13, 183-189.	12.9	274
2	Release of volatiles from a possible cryovolcano from near-infrared imaging of Titan. <i>Nature</i> , 2005, 435, 786-789.	27.8	208
3	Constraints on the shallow elastic and anelastic structure of Mars from InSight seismic data. <i>Nature Geoscience</i> , 2020, 13, 213-220.	12.9	207
4	The atmosphere of Mars as observed by InSight. <i>Nature Geoscience</i> , 2020, 13, 190-198.	12.9	161
5	Detection and mapping of hydrocarbon deposits on Titan. <i>Journal of Geophysical Research</i> , 2010, 115, .	3.3	147
6	Spectroscopy, morphometry, and photoclinometry of Titan's dunefields from Cassini/VIMS. <i>Icarus</i> , 2008, 195, 400-414.	2.5	125
7	Global-scale surface spectral variations on Titan seen from Cassini/VIMS. <i>Icarus</i> , 2007, 186, 242-258.	2.5	110
8	Geology of the InSight landing site on Mars. <i>Nature Communications</i> , 2020, 11, 1014.	12.8	107
9	Organic sedimentary deposits in Titan's dry lakebeds: Probable evaporite. <i>Icarus</i> , 2011, 216, 136-140.	2.5	96
10	Titan's surface and atmosphere from Cassini/VIMS data with updated methane opacity. <i>Icarus</i> , 2013, 226, 470-486.	2.5	92
11	Fluvial erosion and post-erosional processes on Titan. <i>Icarus</i> , 2008, 197, 526-538.	2.5	88
12	Atmospheric Science with InSight. <i>Space Science Reviews</i> , 2018, 214, 1.	8.1	88
13	Titan haze distribution and optical properties retrieved from recent observations. <i>Icarus</i> , 2010, 208, 850-867.	2.5	85
14	Titan's surface: Search for spectral diversity and composition using the Cassini VIMS investigation. <i>Icarus</i> , 2008, 194, 212-242.	2.5	83
15	Near-infrared spectral mapping of Titan's mountains and channels. <i>Journal of Geophysical Research</i> , 2007, 112, .	3.3	82
16	Cassini/VIMS hyperspectral observations of the HUYGENS landing site on Titan. <i>Planetary and Space Science</i> , 2006, 54, 1510-1523.	1.7	79
17	TandEM: Titan and Enceladus mission. <i>Experimental Astronomy</i> , 2009, 23, 893-946.	3.7	77
18	Geology and Physical Properties Investigations by the InSight Lander. <i>Space Science Reviews</i> , 2018, 214, 1.	8.1	77

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19	Global circulation as the main source of cloud activity on Titan. <i>Nature</i> , 2009, 459, 678-682.	27.8	76
20	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
21	Titan's cloud seasonal activity from winter to spring with Cassini/VIMS. <i>Icarus</i> , 2011, 216, 89-110.	2.5	68
22	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
23	Cassini observations of flow-like features in western Tui Regio, Titan. <i>Geophysical Research Letters</i> , 2006, 33, .	4.0	66
24	Evidence of Titan's climate history from evaporite distribution. <i>Icarus</i> , 2014, 243, 191-207.	2.5	62
25	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
26	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
27	Growth mechanisms and dune orientation on Titan. <i>Geophysical Research Letters</i> , 2014, 41, 6093-6100.	4.0	52
28	Methane storms as a driver of Titan's dune orientation. <i>Nature Geoscience</i> , 2015, 8, 362-366.	12.9	52
29	Sediment flux from the morphodynamics of elongating linear dunes. <i>Geology</i> , 2015, 43, 1027-1030.	4.4	52
30	Impact-Seismic Investigations of the InSight Mission. <i>Space Science Reviews</i> , 2018, 214, 1.	8.1	48
31	Titan's Meteorology Over the Cassini Mission: Evidence for Extensive Subsurface Methane Reservoirs. <i>Geophysical Research Letters</i> , 2018, 45, 5320-5328.	4.0	47
32	AVIATR's Aerial Vehicle for In-situ and Airborne Titan Reconnaissance. <i>Experimental Astronomy</i> , 2012, 33, 55-127.	3.7	45
33	Precipitation-induced surface brightenings seen on Titan by Cassini VIMS and ISS. <i>Planetary Science</i> , 2013, 2, .	1.5	45
34	A Study of Daytime Convective Vortices and Turbulence in the Martian Planetary Boundary Layer Based on Half a Year of InSight Atmospheric Measurements and Large Eddy Simulations. <i>Journal of Geophysical Research E: Planets</i> , 2021, 126, .	3.6	45
35	Subsurface Structure at the InSight Landing Site From Compliance Measurements by Seismic and Meteorological Experiments. <i>Journal of Geophysical Research E: Planets</i> , 2020, 125, e2020JE006387.	3.6	44
36	Crust stratigraphy and heterogeneities of the first kilometers at the dichotomy boundary in western Elysium Planitia and implications for InSight lander. <i>Icarus</i> , 2020, 338, 113511.	2.5	40

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37	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
38	ACETYLENE ON TITAN'S SURFACE. <i>Astrophysical Journal</i> , 2016, 828, 55.	4.5	36
39	CHARACTERIZATION OF CLOUDS IN TITAN'S TROPICAL ATMOSPHERE. <i>Astrophysical Journal</i> , 2009, 702, L105-L109.	4.5	35
40	Titan as Revealed by the Cassini Radar. <i>Space Science Reviews</i> , 2019, 215, 1.	8.1	34
41	Dissipation of Titan's north polar cloud at northern spring equinox. <i>Planetary and Space Science</i> , 2012, 60, 86-92.	1.7	33
42	The Spectral Nature of Titan's Major Geomorphological Units: Constraints on Surface Composition. <i>Journal of Geophysical Research E: Planets</i> , 2018, 123, 489-507.	3.6	33
43	Possible identification of local deposits of Cl ₂ SO ₂ on Io from NIMS/Galileo spectra. <i>Journal of Geophysical Research</i> , 2003, 108, 8-1-8-19.	3.3	32
44	Analysis of a cryolava flow-like feature on Titan. <i>Planetary and Space Science</i> , 2009, 57, 870-879.	1.7	31
45	Cassini/VIMS observes rough surfaces on Titan's Punga Mare in specular reflection. <i>Planetary Science</i> , 2014, 3, 3.	1.5	31
46	Surface albedo spectral properties of geologically interesting areas on Titan. <i>Journal of Geophysical Research E: Planets</i> , 2014, 119, 1729-1747.	3.6	30
47	Monitoring of Dust Devil Tracks Around the InSight Landing Site, Mars, and Comparison With In Situ Atmospheric Data. <i>Geophysical Research Letters</i> , 2020, 47, e2020GL087234.	4.0	30
48	Temporal variations of Titan's surface with Cassini/VIMS. <i>Icarus</i> , 2016, 270, 85-99.	2.5	29
49	VIMS spectral mapping observations of Titan during the Cassini prime mission. <i>Planetary and Space Science</i> , 2009, 57, 1950-1962.	1.7	28
50	Geological Evolution of Titan's Equatorial Regions: Possible Nature and Origin of the Dune Material. <i>Journal of Geophysical Research E: Planets</i> , 2018, 123, 1089-1112.	3.6	28
51	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
52	Impact of aerosols present in Titan's atmosphere on the CASSINI radar experiment. <i>Icarus</i> , 2003, 164, 213-227.	2.5	24
53	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
54	A New Crater Near InSight: Implications for Seismic Impact Detectability on Mars. <i>Journal of Geophysical Research E: Planets</i> , 2020, 125, e2020JE006382.	3.6	24

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55	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
56	Vortexâ€Dominated Aeolian Activity at InSight's Landing Site, Part 1: Multiâ€Instrument Observations, Analysis, and Implications. <i>Journal of Geophysical Research E: Planets</i> , 2021, 126, e2020JE006757.	3.6	23
57	Titan: Earth-like on the Outside, Ocean World on the Inside. <i>Planetary Science Journal</i> , 2021, 2, 112.	3.6	21
58	Sedimentation waves on the Martian North Polar Cap: Analogy with megadunes in Antarctica. <i>Earth and Planetary Science Letters</i> , 2014, 403, 56-66.	4.4	20
59	Mapping polar atmospheric features on Titan with VIMS: From the dissipation of the northern cloud to the onset of a southern polar vortex. <i>Icarus</i> , 2018, 311, 371-383.	2.5	20
60	Geometry and Segmentation of Cerberus Fossae, Mars: Implications for Marsquake Properties. <i>Journal of Geophysical Research E: Planets</i> , 2022, 127, .	3.6	20
61	Titan Science with the <i>James Webb Space Telescope</i>. <i>Publications of the Astronomical Society of the Pacific</i> , 2016, 128, 018007.	3.1	19
62	The case for seasonal surface changes at Titanâ€™s lake district. <i>Nature Astronomy</i> , 2019, 3, 506-510.	10.1	19
63	Vortexâ€Dominated Aeolian Activity at InSight's Landing Site, Part 2: Local Meteorology, Transport Dynamics, and Model Analysis. <i>Journal of Geophysical Research E: Planets</i> , 2021, 126, e2020JE006514.	3.6	19
64	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
65	Observational evidence for active dust storms on Titan at equinox. <i>Nature Geoscience</i> , 2018, 11, 727-732.	12.9	18
66	Close-range remote sensing of Saturnâ€™s rings during Cassiniâ€™s ring-grazing orbits and Grand Finale. <i>Science</i> , 2019, 364, .	12.6	17
67	The Cassini VIMS archive of Titan: From browse products to global infrared color maps. <i>Icarus</i> , 2019, 319, 121-132.	2.5	17
68	DUAL ORIGIN OF AEROSOLS IN TITAN'S DETACHED HAZE LAYER. <i>Astrophysical Journal Letters</i> , 2011, 741, L32.	8.3	16
69	Constraining Martian Regolith and Vortex Parameters From Combined Seismic and Meteorological Measurements. <i>Journal of Geophysical Research E: Planets</i> , 2021, 126, e2020JE006410.	3.6	16
70	A review of Titanâ€™s atmospheric phenomena. <i>Astronomy and Astrophysics Review</i> , 2009, 17, 105-147.	25.5	15
71	Science goals and mission concept for the future exploration of Titan and Enceladus. <i>Planetary and Space Science</i> , 2014, 104, 59-77.	1.7	15
72	Direct validation of dune instability theory. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2021, 118, .	7.1	15

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73	First quantification of relationship between dune orientation and sediment availability, Olympia Undae, Mars. <i>Earth and Planetary Science Letters</i> , 2018, 489, 241-250.	4.4	14
74	Observational Evidence for Summer Rainfall at Titan's North Pole. <i>Geophysical Research Letters</i> , 2019, 46, 1205-1212.	4.0	14
75	The opposition effect in the outer Solar system: A comparative study of the phase function morphology. <i>Planetary and Space Science</i> , 2009, 57, 1282-1301.	1.7	13
76	Possible temperate lakes on Titan. <i>Icarus</i> , 2015, 257, 313-323.	2.5	13
77	Cassini's geological and compositional view of Tethys. <i>Icarus</i> , 2016, 274, 1-22.	2.5	13
78	Spectral and emissivity analysis of the raised ramparts around Titan's northern lakes. <i>Icarus</i> , 2020, 344, 113338.	2.5	13
79	Photometrically-corrected global infrared mosaics of Enceladus: New implications for its spectral diversity and geological activity. <i>Icarus</i> , 2020, 349, 113848.	2.5	10
80	A New Digital Terrain Model of the Huygens Landing Site on Saturn's Largest Moon, Titan. <i>Earth and Space Science</i> , 2020, 7, e2020EA001127.	2.6	7
81	Distribution and intensity of water ice signature in South Xanadu and Tui Regio. <i>Icarus</i> , 2021, 364, 114464.	2.5	7
82	Spatio-temporal Variation of Bright Ephemeral Features on Titan's North Pole. <i>Planetary Science Journal</i> , 2020, 1, 31.	3.6	7
83	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
84	Inferring Vortex and Dust Devil Statistics from InSight. <i>Planetary Science Journal</i> , 2021, 2, 206.	3.6	6
85	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
86	Texture and Composition of Titan's Equatorial Sand Seas Inferred From Cassini SAR Data: Implications for Aeolian Transport and Dune Morphodynamics. <i>Journal of Geophysical Research E: Planets</i> , 2019, 124, 3140-3163.	3.6	3
87	Tracking Short-term Variations in the Haze Distribution of Titan's Atmosphere with SINFONI VLT. <i>Planetary Science Journal</i> , 2021, 2, 180.	3.6	3
88	Titan Stratospheric Haze Bands Observed in Cassini VIMS as Tracers of Meridional Circulation. <i>Planetary Science Journal</i> , 2022, 3, 114.	3.6	3
89	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
90	Global mapping of Titan in the infrared using a heuristic approach to reduce the atmospheric scattering component. , 2010, , .		2

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91	An autonomous lunar geophysical experiment package (ALGEP) for future space missions. <i>Experimental Astronomy</i> , 2022, 54, 617-640.	3.7	2
92	Coexistence of Two Dune Growth Mechanisms in a Landscape-scale Experiment. <i>Geophysical Research Letters</i> , 2022, 49, .	4.0	2
93	Fast forward modeling of Titan's infrared spectra to invert VIMS/Cassini hyperspectral images. , 2009, , .		0
94	Systematic detection of Titan's clouds in VIMS/Cassini hyperspectral images using a new automated algorithm. , 2010, , .		0
95	Titan's surface and atmosphere as seen by the vims hyperspectral imager onboard cassini. , 2014, , .		0