Takeshi Imamura

List of Publications by Year
in descending order

99 papers	2,657 citations	147801 31 h-index	233421 45 g-index
99 all docs	99 docs citations	99 times ranked	1096 citing authors

#	Article	IF	Citations
1	The structure of Venusâ€™ middle atmosphere and ionosphere. Nature, 2007, 450, 657-660.	27.8	109
2	Large stationary gravity wave in the atmosphere of Venus. Nature Geoscience, 2017, 10, 85-88.	12.9	99
3	The Atmospheric Dynamics of Venus. Space Science Reviews, 2017, 212, 1541-1616.	8.1	95
4	AKATSUKI returns to Venus. Earth, Planets and Space, 2016, 68, .	2.5	89
5	Radio science investigations by VeRa onboard the Venus Express spacecraft. Planetary and Space Science, 2006, 54, 1315-1335.	1.7	80
6	Overview of Venus orbiter, Akatsuki. Earth, Planets and Space, 2011, 63, 443-457.	2.5	72
7	Planet-C: Venus Climate Orbiter mission of Japan. Planetary and Space Science, 2007, 55, 1831-1842.	1.7	67
8	Longâ€term variation in the cloudâ€tracked zonal velocities at the cloud top of Venus deduced from Venus Express VMC images. Journal of Geophysical Research E: Planets, 2013, 118, 37-46.	3.6	67
9	Initial performance of the radio occultation experiment in the Venus orbiter mission Akatsuki. Earth, Planets and Space, 2017, 69, .	2.5	60
10	Microphysics of Venusian Clouds in Rising Tropical Air. Journals of the Atmospheric Sciences, 2001, 58, 3597-3612.	1.7	57
11	Small-scale temperature fluctuations seen by the VeRa Radio Science Experiment on Venus Express. Icarus, 2012, 221, 471-480.	2.5	55
12	Fluctuations of the One-Dimensional Polynuclear Growth Model in Half-Space. Journal of Statistical Physics, 2004, 115, 749-803.	1.2	54
13	Mean winds at the cloud top of Venus obtained from two-wavelength UV imaging by Akatsuki. Earth, Planets and Space, 2018, 70, .	2.5	52
14	LIR: Longwave Infrared Camera onboard the Venus orbiter Akatsuki. Earth, Planets and Space, 2011, 63, 1009-1018.	2.5	47
15	Inverse insolation dependence of Venusâ€™ cloud-level convection. Icarus, 2014, 228, 181-188.	2.5	47
16	Topographical and Local Time Dependence of Large Stationary Gravity Waves Observed at the Cloud Top of Venus. Geophysical Research Letters, 2017, 44, 12,098.	4.0	46
17	Venus cloud formation in the meridional circulation. Journal of Geophysical Research, 1998, 103, 31349-31366.	3.3	43
18	Horizontal structure of planetary-scale waves at the cloud top of Venus deduced from Galileo SSI images with an improved cloud-tracking technique. Planetary and Space Science, 2012, 60, 207-216.	1.7	43

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19	How waves and turbulence maintain the super-rotation of Venusâ€™ atmosphere. Science, 2020, 368, 405-409.	12.6	41
20	RADIAL DISTRIBUTION OF COMPRESSIVE WAVES IN THE SOLAR CORONA REVEALED BY<i>AKATSUKI</i>RADIO OCCULTATION OBSERVATIONS. Astrophysical Journal, 2014, 797, 51.	4.5	40
21	The puzzling Venusian polar atmospheric structure reproduced by a general circulation model. Nature Communications, 2016, 7, 10398.	12.8	37
22	Long-term variations of the UV contrast on Venus observed by the Venus Monitoring Camera on board Venus Express. Icarus, 2015, 253, 1-15.	2.5	36
23	Thermal structure of the Venusian atmosphere from the sub-cloud region to the mesosphere as observed by radio occultation. Scientific Reports, 2020, 10, 3448.	3.3	36
24	Equatorial jet in the lower to middle cloud layer of Venus revealed by Akatsuki. Nature Geoscience, 2017, 10, 646-651.	12.9	35
25	Stationary waves and slowly moving features in the night upper clouds of Venus. Nature Astronomy, 2017, 1, .	10.1	35
26	Meridional Propagation of Planetary-Scale Waves in Vertical Shear: Implication for the Venus Atmosphere. Journals of the Atmospheric Sciences, 2006, 63, 1623-1636.	1.7	34
27	ANALYTICAL SOLUTION FOR WAVES IN PLANETS WITH ATMOSPHERIC SUPERROTATION. II. LAMB, SURFACE, AND CENTRIFUGAL WAVES. Astrophysical Journal, Supplement Series, 2014, 213, 18.	7.7	34
28	The thermal structure of the Venus atmosphere: Intercomparison of Venus Express and ground based observations of vertical temperature and density profiles. Icarus, 2017, 294, 124-155.	2.5	34
29	Ultraviolet imager on Venus orbiter Akatsuki and its initial results. Earth, Planets and Space, 2018, 70, 23.	2.5	34
30	Vertical Wavenumber Spectra of Gravity Waves in the Martian Atmosphere Obtained from Mars Global Surveyor Radio Occultation Data. Journals of the Atmospheric Sciences, 2012, 69, 2906-2912.	1.7	33
31	Longwave Infrared Camera onboard the Venus Climate Orbiter. Advances in Space Research, 2007, 40, 861-868.	2.6	32
32	OUTFLOW STRUCTURE OF THE QUIET SUN CORONA PROBED BY SPACECRAFT RADIO SCINTILLATIONS IN STRONG SCATTERING. Astrophysical Journal, 2014, 788, 117.	4.5	31
33	Vertical propagation of planetary-scale waves in variable background winds in the upper cloud region of Venus. Icarus, 2015, 248, 560-568.	2.5	31
34	Venus looks different from day to night across wavelengths: morphology from Akatsuki multispectral images. Earth, Planets and Space, 2018, 70, 24.	2.5	31
35	Automated cloud tracking system for the Akatsuki Venus Climate Orbiter data. Icarus, 2012, 217, 661-668.	2.5	30
36	ANALYTICAL SOLUTION FOR WAVES IN PLANETS WITH ATMOSPHERIC SUPERROTATION. I. ACOUSTIC AND INERTIA-GRAVITY WAVES. Astrophysical Journal, Supplement Series, 2014, 213, 17.	7.7	30

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37	Long-term Variations of Venusâ€™s 365 nm Albedo Observed by Venus Express, Akatsuki, MESSENGER, and the Hubble Space Telescope. Astronomical Journal, 2019, 158, 126.	4.7	30
38	Vertical Wavenumber Spectra of Gravity Waves in the Venus Atmosphere Obtained from Venus Express Radio Occultation Data: Evidence for Saturation. Journals of the Atmospheric Sciences, 2015, 72, 2318-2329.	1.7	28
39	Performance of Akatsuki/IR2 in Venus orbit: the first year. Earth, Planets and Space, 2017, 69, .	2.5	28
40	Local Time Dependence of the Thermal Structure in the Venusian Equatorial Upper Atmosphere: Comparison of Akatsuki Radio Occultation Measurements and GCM Results. Journal of Geophysical Research E: Planets, 2018, 123, 2270-2280.	3.6	28
41	Scattering Properties of the Venusian Clouds Observed by the UV Imager on board Akatsuki. Astronomical Journal, 2017, 154, 44.	4.7	27
42	Convective generation and vertical propagation of fast gravity waves on Mars: One- and two-dimensional modeling. Icarus, 2016, 267, 51-63.	2.5	26
43	Global Structure of Thermal Tides in the Upper Cloud Layer of Venus Revealed by LIR on Board Akatsuki. Geophysical Research Letters, 2019, 46, 9457-9465.	4.0	26
44	Momentum balance of the Venusian midlatitude mesosphere. Journal of Geophysical Research, 1997, 102, 6615-6620.	3.3	25
45	Radio occultation experiment of the Venus atmosphere and ionosphere with the Venus orbiter Akatsuki. Earth, Planets and Space, 2011, 63, 493-501.	2.5	25
46	Return to Venus of the Japanese Venus Climate Orbiter AKATSUKI. Acta Astronautica, 2014, 93, 384-389.	3.2	24
47	Lightning Detection by LAC Onboard the Japanese Venus Climate Orbiter, Planet-C. Space Science Reviews, 2008, 137, 317-334.	8.1	23
48	Radiative damping of gravity waves in the terrestrial planetary atmospheres. Geophysical Research Letters, 1995, 22, 267-270.	4.0	22
49	Superrotation in Planetary Atmospheres. Space Science Reviews, 2020, 216, 1.	8.1	22
50	Absolute calibration of brightness temperature of the Venus disk observed by the Longwave Infrared Camera onboard Akatsuki. Earth, Planets and Space, 2017, 69, .	2.5	21
51	Nightside Winds at the Lower Clouds of Venus with Akatsuki/IR2: Longitudinal, Local Time, and Decadal Variations from Comparison with Previous Measurements. Astrophysical Journal, Supplement Series, 2018, 239, 29.	7.7	21
52	Planetaryâ€Scale Variations in Winds and UV Brightness at the Venusian Cloud Top: Periodicity and Temporal Evolution. Journal of Geophysical Research E: Planets, 2019, 124, 2635-2659.	3.6	21
53	Phase scintillation observation during coronal sounding experiments with NOZOMI spacecraft. Astronomy and Astrophysics, 2005, 439, 1165-1169.	5.1	20
54	Overview of Akatsuki data products: definition of data levels, method and accuracy of geometric correction. Earth, Planets and Space, 2017, 69, .	2.5	20

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55	New cloud morphologies discovered on the Venus's night during Akatsuki. Icarus, 2019, 333, 177-182.	2.5	20
56	Studying the Lunar Ionosphere with SELENE Radio Science Experiment. Space Science Reviews, 2010, 154, 305-316.	8.1	18
57	Venus's winds and temperatures during the MESSENGER's flyby: An approximation to a threeâ€dimensional instantaneous state of the atmosphere. Geophysical Research Letters, 2017, 44, 3907-3915.	4.0	18
58	Vertical Propagation of Wave Perturbations in the Middle Atmosphere on Mars by MAVEN/IUVS. Journal of Geophysical Research E: Planets, 2020, 125, e2020JE006481.	3.6	18
59	Initial products of Akatsuki 1-Î¼m camera. Earth, Planets and Space, 2018, 70, .	2.5	17
60	Stationary Features at the Cloud Top of Venus Observed by Ultraviolet Imager Onboard Akatsuki. Journal of Geophysical Research E: Planets, 2019, 124, 1266-1281.	3.6	17
61	A Longâ€Lived Sharp Disruption on the Lower Clouds of Venus. Geophysical Research Letters, 2020, 47, e2020GL087221.	4.0	17
62	Polynuclear growth model with external source and random matrix model with deterministic source. Physical Review E, 2005, 71, 041606.	2.1	16
63	Cloud top structure of Venus revealed by Subaru/COMICS mid-infrared images. Icarus, 2014, 243, 386-399.	2.5	16
64	Vertical structure of the axiâ€asymmetric temperature disturbance in the Venusian polar atmosphere: Comparison between radio occultation measurements and GCM results. Journal of Geophysical Research E: Planets, 2017, 122, 1687-1703.	3.6	16
65	Sensitivity of net thermal flux to the abundance of trace gases in the lower atmosphere of Venus. Journal of Geophysical Research E: Planets, 2016, 121, 1737-1752.	3.6	15
66	Fine Vertical Structures at the Cloud Heights of Venus Revealed by Radio Holographic Analysis of Venus Express and Akatsuki Radio Occultation Data. Journal of Geophysical Research E: Planets, 2018, 123, 2151-2161.	3.6	14
67	The nightside cloud-top circulation of the atmosphere of Venus. Nature, 2021, 595, 511-515.	27.8	14
68	Characteristic features in Venusâ€™ nightside cloud-top temperature obtained by Akatsuki/LIR. Icarus, 2012, 219, 502-504.	2.5	13
69	Venusâ€™ clouds as inferred from the phase curves acquired by IR1 and IR2 on board Akatsuki. Icarus, 2015, 248, 213-220.	2.5	13
70	Dayside cloud top structure of Venus retrieved from Akatsuki IR2 observations. Icarus, 2020, 345, 113682.	2.5	13
71	Internal structure of a coronal mass ejection revealed by Akatsuki radio occultation observations. Journal of Geophysical Research: Space Physics, 2015, 120, 5318-5328.	2.4	11
72	Coronal Electron Density Fluctuations Inferred from Akatsuki Spacecraft Radio Observations. Solar Physics, 2020, 295, 1.	2.5	11

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73	Morphology and Dynamics of Venus's Middle Clouds With Akatsuki/IR1. Geophysical Research Letters, 2019, 46, 2399-2407.	4.0	10
74	Formation of the Y Feature at the Venusian Cloud Top by Planetaryâ€Scale Waves and the Mean Circulation: Analysis of Venus Express VMC Images. Journal of Geophysical Research E: Planets, 2019, 124, 1143-1156.	3.6	10
75	Brightness modulations of our nearest terrestrial planet Venus reveal atmospheric super-rotation rather than surface features. Nature Communications, 2020, 11, 5720.	12.8	10
76	Constraints on Venus Lightning From Akatsuki's First 3 Years in Orbit. Geophysical Research Letters, 2019, 46, 7955-7961.	4.0	9
77	A Warm Layer in the Nightside Mesosphere of Mars. Geophysical Research Letters, 2020, 47, e2019GL085646.	4.0	9
78	A method to estimate optical distortion using planetary images. Planetary and Space Science, 2013, 86, 86-90.	1.7	8
79	Initiation of a lightning search using the lightning and airglow camera onboard the Venus orbiter Akatsuki. Earth, Planets and Space, 2018, 70, 88.	2.5	8
80	Seasonal and Latitudinal Variations of Dayside N₂/CO₂ Ratio in the Martian Thermosphere Derived From MAVEN IUVS Observations. Journal of Geophysical Research E: Planets, 2020, 125, e2020JE006378.	3.6	8
81	Planetaryâ€Scale Waves Seen in Thermal Infrared Images of Venusian Cloud Top. Journal of Geophysical Research E: Planets, 2021, 126, e2021JE007047.	3.6	8
82	The Lateral Transport of Zonal Momentum Due to Kelvin Waves in a Meridional Circulation. Journals of the Atmospheric Sciences, 2004, 61, 1966-1975.	1.7	7
83	Properties of solar wind turbulence from radio occultation experiments with the NOZOMI spacecraft. Astronomy Reports, 2010, 54, 1032-1041.	0.9	7
84	Characteristic Features of <i>V</i>₀ Layer in the Venus Ionosphere as Observed by the Akatsuki Orbiter: Evidence for Its Presence During the Local Noon and Postâ€Sunset Conditions. Geophysical Research Letters, 2022, 49, .	4.0	7
85	Observation of the Solar Corona Using Radio Scintillation with the Akatsuki Spacecraft: Difference Between Fast and Slow Wind. Solar Physics, 2022, 297, 1.	2.5	6
86	Gravity Wave Packets in the Venusian Atmosphere Observed by Radio Occultation Experiments: Comparison With Saturation Theory. Journal of Geophysical Research E: Planets, 2021, 126, e2021JE006912.	3.6	5
87	Influence of the cloud-level neutral layer on the vertical propagation of topographically generated gravity waves on Venus. Earth, Planets and Space, 2019, 71, .	2.5	5
88	Gravity Wave Characteristics Derived from Structured Atomic Oxygen Profile and Multiple Es Layers.. Journal of Geomagnetism and Geoelectricity, 1995, 47, 961-972.	0.9	5
89	Thermal Tides in the Upper Cloud Layer of Venus as Deduced From the Emission Angle Dependence of the Brightness Temperature by Akatsuki/LIR. Journal of Geophysical Research E: Planets, 2021, 126, e2020JE006808.	3.6	5
90	Spatial and Temporal Variability of the 365â€nm Albedo of Venus Observed by the Camera on Board Venus Express. Journal of Geophysical Research E: Planets, 2020, 125, e2019JE006271.	3.6	4

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91	Horizontal structures of bow-shaped mountain wave trains seen in thermal infrared images of venusian clouds taken by Akatsuki LIR. Icarus, 2022, 378, 114936.	2.5	4
92	A Recharge Oscillator Model for Interannual Variability in Venusâ€™ Clouds. Journal of Geophysical Research E: Planets, 2020, 125, e2020JE006568.	3.6	3
93	Correlation of Venusian Mesoscale Cloud Morphology Between Images Acquired at Various Wavelengths. Journal of Geophysical Research E: Planets, 2022, 127, .	3.6	3
94	Principal components of short-term variability in the ultraviolet albedo of Venus. Astronomy and Astrophysics, 2019, 626, A30.	5.1	2
95	Vertical Coupling Between the Cloudâ€Level Atmosphere and the Thermosphere of Venus Inferred From the Simultaneous Observations by Hisaki and Akatsuki. Journal of Geophysical Research E: Planets, 2020, 125, e2019JE006192.	3.6	2
96	Dynamical Effect on Static Stability of the Venus Atmosphere Simulated Using a General Circulation Model: A Comparison With Radio Occultation Measurements. Journal of Geophysical Research E: Planets, 2022, 127, .	3.6	2
97	A Sensitivity Study to Infer Tropospheric Ozone from Atmospheric Thermal Emission at 9.6μm Wavelength Measured with a Nadir View from a Satellite. Journal of the Meteorological Society of Japan, 1995, 73, 255-258.	1.8	0
98	Low temperature direct bonding of flip-chip mounting VCSEL to Si substrate. , 2006, , .		0
99	Automatic Detection of Stationary Waves in the Venus Atmosphere Using Deep Generative Models. , 2021, , .		0