Shoya Matsuda

List of Publications by Year
in descending order

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		394286	302012
65	1,670	19	39
papers	citations	h-index	g-index

72	72	72	1205
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	The Space Physics Environment Data Analysis System (SPEDAS). Space Science Reviews, 2019, 215, 9.	3.7	332
2	Pulsating aurora from electron scattering by chorus waves. Nature, 2018, 554, 337-340.	13.7	149
3	The ERG Science Center. Earth, Planets and Space, 2018, 70, .	0.9	124
4	The Plasma Wave Experiment (PWE) on board the Arase (ERG) satellite. Earth, Planets and Space, 2018, 70, .	0.9	124
5	High Frequency Analyzer (HFA) of Plasma Wave Experiment (PWE) onboard the Arase spacecraft. Earth, Planets and Space, 2018, 70, .	0.9	93
6	Onboard software of Plasma Wave Experiment aboard Arase: instrument management and signal processing of Waveform Capture/Onboard Frequency Analyzer. Earth, Planets and Space, 2018, 70, .	0.9	64
7	Wire Probe Antenna (WPT) and Electric Field Detector (EFD) of Plasma Wave Experiment (PWE) aboard the Arase satellite: specifications and initial evaluation results. Earth, Planets and Space, 2017, 69, .	0.9	49
8	Penetration of MeV electrons into the mesosphere accompanying pulsating aurorae. Scientific Reports, 2021, 11, 13724.	1.6	37
9	Visualization of rapid electron precipitation via chorus element waveâ€“particle interactions. Nature Communications, 2019, 10, 257.	5.8	35
10	The Characteristics of EMIC Waves in the Magnetosphere Based on the Van Allen Probes and Arase Observations. Journal of Geophysical Research: Space Physics, 2021, 126, e2020JA029001.	0.8	35
11	Multiple time-scale beats in aurora: precise orchestration via magnetospheric chorus waves. Scientific Reports, 2020, 10, 3380.	1.6	33
12	Magnetic Search Coil (MSC) of Plasma Wave Experiment (PWE) aboard the Arase (ERG) satellite. Earth, Planets and Space, 2018, 70, .	0.9	31
13	EMIC Waves Converted From Equatorial Noise Due to M/Q = 2 Ions in the Plasmasphere: Observations From Van Allen Probes and Arase. Geophysical Research Letters, 2019, 46, 5662-5669.	1.5	31
14	Electrostatic Electron Cyclotron Harmonic Waves as a Candidate to Cause Pulsating Auroras. Geophysical Research Letters, 2018, 45, 12,661.	1.5	29
15	Response of the Ionosphereâ€Plasmasphere Coupling to the September 2017 Storm: What Erodes the Plasmasphere so Severely?. Space Weather, 2019, 17, 861-876.	1.3	25
16	Microscopic Observations of Pulsating Aurora Associated With Chorus Element Structures: Coordinated Arase Satelliteâ€PWING Observations. Geophysical Research Letters, 2018, 45, 12,125.	1.5	24
17	Software-type Waveâ€“Particle Interaction Analyzer on board the Arase satellite. Earth, Planets and Space, 2018, 70, .	0.9	21
18	First Direct Observations of Propagation of Discrete Chorus Elements From the Equatorial Source to Higher Latitudes, Using the Van Allen Probes and Arase Satellites. Journal of Geophysical Research: Space Physics, 2020, 125, e2020JA028315.	0.8	21

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19	Comprehensive Observations of Substormâ€Enhanced Plasmaspheric Hiss Generation, Propagation, and Dissipation. Geophysical Research Letters, 2020, 47, e2019GL086040.	1.5	21
20	Plasma Wave Investigation (PWI) Aboard BepiColombo Mio on the Trip to the First Measurement of Electric Fields, Electromagnetic Waves, and Radio Waves Around Mercury. Space Science Reviews, 2020, 216, 1.	3.7	20
21	Longitudinal Structure of Oxygen Torus in the Inner Magnetosphere: Simultaneous Observations by Arase and Van Allen Probe A. Geophysical Research Letters, 2018, 45, 10,177.	1.5	18
22	Conjugate Observations of Dayside and Nightside VLF Chorus and QP Emissions Between Arase (ERG) and Kannuslehto, Finland. Journal of Geophysical Research: Space Physics, 2020, 125, e2019JA026663.	0.8	18
23	Deformation of Electron Pitch Angle Distributions Caused by Upper Band Chorus Observed by the Arase Satellite. Geophysical Research Letters, 2018, 45, 7996-8004.	1.5	17
24	Temporal and Spatial Variations of Storm Time Midlatitude Ionospheric Trough Based on Global GNSSâ€TEC and Arase Satellite Observations. Geophysical Research Letters, 2018, 45, 7362-7370.	1.5	17
25	Role of Ducting in Relativistic Electron Loss by Whistlerâ€Mode Wave Scattering. Journal of Geophysical Research: Space Physics, 2021, 126, e2021JA029851.	0.8	17
26	Electromagnetic ion cyclotron waves suggesting minor ion existence in the inner magnetosphere observed by the Akebono satellite. Journal of Geophysical Research: Space Physics, 2014, 119, 4348-4357.	0.8	14
27	Spatial Distribution of Fineâ€Structured and Unstructured EMIC Waves Observed by the Arase Satellite. Geophysical Research Letters, 2018, 45, 11,530.	1.5	14
28	Instantaneous Frequency Analysis on Nonlinear EMIC Emissions: Arase Observation. Geophysical Research Letters, 2018, 45, 13,199.	1.5	13
29	Temporal and Spatial Correspondence of Pc1/EMIC Waves and Relativistic Electron Precipitations Observed With Groundâ€Based Multiâ€Instruments on 27 March 2017. Geophysical Research Letters, 2018, 45, 13,182.	1.5	13
30	Data processing in Software-type Waveâ€“Particle Interaction Analyzer onboard the Arase satellite. Earth, Planets and Space, 2018, 70, .	0.9	12
31	Relationship Between the Locations of the Midlatitude Trough and Plasmapause Using GNSSâ€TEC and Arase Satellite Observation Data. Journal of Geophysical Research: Space Physics, 2021, 126, e2020JA028943.	0.8	12
32	Cross-Energy Couplings from Magnetosonic Waves to Electromagnetic Ion Cyclotron Waves through Cold Ion Heating inside the Plasmasphere. Physical Review Letters, 2021, 127, 245101.	2.9	11
33	Density Depletions Associated With Enhancements of Electron Cyclotron Harmonic Emissions: An ERG Observation. Geophysical Research Letters, 2018, 45, 10,075.	1.5	10
34	Discovery of proton hill in the phase space during interactions between ions and electromagnetic ion cyclotron waves. Scientific Reports, 2021, 11, 13480.	1.6	10
35	Collaborative Research Activities of the Arase and Van Allen Probes. Space Science Reviews, 2022, 218, .	3.7	10
36	Transient ionization of the mesosphere during auroral breakup: Arase satellite and ground-based conjugate observations at Syowa Station. Earth, Planets and Space, 2019, 71, .	0.9	9

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37	A Systematic Study in Characteristics of Lower Band Risingâ€Tone Chorus Elements. Journal of Geophysical Research: Space Physics, 2019, 124, 9003-9016.	0.8	9
38	Mission Data Processor Aboard the BepiColombo Mio Spacecraft: Design and Scientific Operation Concept. Space Science Reviews, 2020, 216, 1.	3.7	9
39	Strong Diffusion of Energetic Electrons by Equatorial Chorus Waves in the Midnightâ€toâ€Dawn Sector. Geophysical Research Letters, 2019, 46, 12685-12692.	1.5	8
40	Automatic Electron Density Determination by Using a Convolutional Neural Network. IEEE Access, 2019, 7, 163384-163394.	2.6	8
41	Spatial Extent of Quasiperiodic Emissions Simultaneously Observed by Arase and Van Allen Probes on 29 November 2018. Journal of Geophysical Research: Space Physics, 2020, 125, e2020JA028126.	0.8	8
42	Variation in crossover frequency of EMIC waves in plasmasphere estimated from ion cyclotron whistler waves observed by Van Allen Probe A. Geophysical Research Letters, 2016, 43, 28-34.	1.5	7
43	Direct Comparison Between Magnetospheric Plasma Waves and Polar Mesosphere Winter Echoes in Both Hemispheres. Journal of Geophysical Research: Space Physics, 2019, 124, 9626-9639.	0.8	7
44	Pitchâ€Angle Scattering of Inner Magnetospheric Electrons Caused by ECH Waves Obtained With the Arase Satellite. Geophysical Research Letters, 2020, 47, e2020GL089926.	1.5	7
45	Multiâ€Event Analysis of Plasma and Field Variations in Source of Stable Auroral Red (SAR) Arcs in Inner Magnetosphere During Nonâ€Stormâ€Time Substorms. Journal of Geophysical Research: Space Physics, 2021, 126, e2020JA029081.	0.8	7
46	Multipoint Measurement of Fineâ€Structured EMIC Waves by Arase, Van Allen Probe A and Ground Stations. Geophysical Research Letters, 2021, 48, e2021GL096488.	1.5	7
47	Space-to-space very low frequency radio transmission in the magnetosphere using the DSX and Arase satellites. Earth, Planets and Space, 2022, 74, .	0.9	7
48	High-altitudeM/Q=2 ion cyclotron whistlers in the inner magnetosphere observed by the Akebono satellite. Geophysical Research Letters, 2014, 41, 3759-3765.	1.5	6
49	M/Q = 2 ion distribution in the inner magnetosphere estimated from ion cyclotron whistler waves observed by the Akebono satellite. Journal of Geophysical Research: Space Physics, 2015, 120, 2783-2795.	0.8	6
50	Automatic Detection of Lightning Whistlers Observed by the Plasma Wave Experiment Onboard the Arase Satellite Using the OpenCV Library. Remote Sensing, 2019, 11, 1785.	1.8	6
51	Dataâ€Driven Simulation of Rapid Flux Enhancement of Energetic Electrons With an Upperâ€Band Whistler Burst. Journal of Geophysical Research: Space Physics, 2021, 126, e2020JA028979.	0.8	6
52	Interâ€Calibrated Measurements of Intense Whistlers by Arase and Van Allen Probes. Journal of Geophysical Research: Space Physics, 2021, 126, e2021JA029700.	0.8	6
53	Tracking the Region of High Correlation Between Pulsating Aurora and Chorus: Simultaneous Observations With Arase Satellite and Groundâ€Based Allâ€Sky Imager in Russia. Journal of Geophysical Research: Space Physics, 2019, 124, 2769-2778.	0.8	5
54	Plasma Waves Causing Relativistic Electron Precipitation Events at International Space Station: Lessons From Conjunction Observations With Arase Satellite. Journal of Geophysical Research: Space Physics, 2020, 125, e2020JA027875.	0.8	5

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55	Direct Antenna Impedance Measurement for Quantitative AC Electric Field Measurement by Arase. Journal of Geophysical Research: Space Physics, 2021, 126, e2021JA029111.	0.8	4
56	Study of an equatorward detachment of auroral arc from the oval using groundâ€spspace observations and the BATSâ€Râ€US â€“ CIMI model. Journal of Geophysical Research: Space Physics, 2021, 126, e2020JA029080.	0.8	4
57	Statistical Study of Approaching Strong Diffusion of Lowâ€Energy Electrons by Chorus and ECH Waves Based on In Situ Observations. Journal of Geophysical Research: Space Physics, 2022, 127, .	0.8	4
58	Detection of UHR Frequencies by a Convolutional Neural Network From Arase/PWE Data. Journal of Geophysical Research: Space Physics, 2020, 125, e2020JA028075.	0.8	3
59	Multievent Study of Characteristics and Propagation of Naturally Occurring ELF/VLF Waves Using Highâ€Latitude Ground Observations and Conjunctions With the Arase Satellite. Journal of Geophysical Research: Space Physics, 2021, 126, e2020JA028682.	0.8	3
60	Fieldâ€Aligned Electron Density Distribution of the Inner Magnetosphere Inferred From Coordinated Observations of Arase and Van Allen Probes. Journal of Geophysical Research: Space Physics, 2021, 126, e2020JA029073.	0.8	3
61	Overâ€Darkening of Pulsating Aurora. Journal of Geophysical Research: Space Physics, 2021, 126, e2020JA028838.	0.8	2
62	ISEE_Wave: interactive plasma wave analysis tool. Earth, Planets and Space, 2021, 73, .	0.9	2
63	Arase Observation of Simultaneous Electron Scatterings by Upperâ€Band and Lowerâ€Band Chorus Emissions. Geophysical Research Letters, 2021, 48, e2021GL093708.	1.5	2
64	Statistical Survey of Arase Satellite Data Sets in Conjunction With the Finnish Riometer Network. Journal of Geophysical Research: Space Physics, 2022, 127, .	0.8	1
65	Extremely Collimated Electron Beams in the High Latitude Magnetosphere Observed by Arase. Geophysical Research Letters, 2021, 48, e2020GL090522.	1.5	0