

# Yuto Katoh

## List of Publications by Citations

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

92  
papers

2,308  
citations

22  
h-index

46  
g-index

108  
ext. papers

2,702  
ext. citations

3.5  
avg. IF

5  
L-index

#	Paper	IF	Citations
92	Theory and simulation of the generation of whistler-mode chorus. <i>Journal of Geophysical Research</i> , <b>2008</b> , 113, n/a-n/a		360
91	Nonlinear mechanisms of lower-band and upper-band VLF chorus emissions in the magnetosphere. <i>Journal of Geophysical Research</i> , <b>2009</b> , 114, n/a-n/a		216
90	Development of Optical Mesosphere Thermosphere Imagers (OMTI). <i>Earth, Planets and Space</i> , <b>1999</b> , 51, 887-896	2.9	137
89	Geospace exploration project ERG. <i>Earth, Planets and Space</i> , <b>2018</b> , 70,	2.9	135
88	Computer simulation of chorus wave generation in the Earth's inner magnetosphere. <i>Geophysical Research Letters</i> , <b>2007</b> , 34,	4.9	124
87	The Plasma Wave Experiment (PWE) on board the Arase (ERG) satellite. <i>Earth, Planets and Space</i> , <b>2018</b> , 70,	2.9	92
86	Effect of the background magnetic field inhomogeneity on generation processes of whistler-mode chorus and broadband hiss-like emissions. <i>Journal of Geophysical Research: Space Physics</i> , <b>2013</b> , 118, 4189-4198 <sup>81</sup>	2.6	81
85	Time of flight analysis of pulsating aurora electrons, considering wave-particle interactions with propagating whistler mode waves. <i>Journal of Geophysical Research</i> , <b>2010</b> , 115, n/a-n/a		77
84	High Frequency Analyzer (HFA) of Plasma Wave Experiment (PWE) onboard the Arase spacecraft. <i>Earth, Planets and Space</i> , <b>2018</b> , 70,	2.9	66
83	A study of generation mechanism of VLF triggered emission by self-consistent particle code. <i>Journal of Geophysical Research</i> , <b>2006</b> , 111,		58
82	Relation between fine structure of energy spectra for pulsating aurora electrons and frequency spectra of whistler mode chorus waves. <i>Journal of Geophysical Research: Space Physics</i> , <b>2015</b> , 120, 7728-7736 <sup>76</sup>	2.6	57
81	Amplitude dependence of frequency sweep rates of whistler mode chorus emissions. <i>Journal of Geophysical Research</i> , <b>2011</b> , 116, n/a-n/a		57
80	Relativistic particle acceleration in the process of whistler-mode chorus wave generation. <i>Geophysical Research Letters</i> , <b>2007</b> , 34, n/a-n/a	4.9	44
79	THEMIS observation of chorus elements without a gap at half the gyrofrequency. <i>Journal of Geophysical Research</i> , <b>2012</b> , 117, n/a-n/a		43
78	The source region and its characteristic of pulsating aurora based on the Reimei observations. <i>Journal of Geophysical Research</i> , <b>2011</b> , 116,		37
77	Acceleration of relativistic electrons due to resonant scattering by whistler mode waves generated by temperature anisotropy in the inner magnetosphere. <i>Journal of Geophysical Research</i> , <b>2004</b> , 109,		35
76	Diffuse and Pulsating Aurora. <i>Space Science Reviews</i> , <b>2020</b> , 216, 1	7.5	33

75	Rapid energization of radiation belt electrons by nonlinear wave trapping. <i>Annales Geophysicae</i> , <b>2008</b> , 26, 3451-3456	2	32
74	A simulation study of the propagation of whistler-mode chorus in the Earth's inner magnetosphere. <i>Earth, Planets and Space</i> , <b>2014</b> , 66,	2.9	30
73	Electron hybrid code simulation of whistler-mode chorus generation with real parameters in the Earth's inner magnetosphere. <i>Earth, Planets and Space</i> , <b>2016</b> , 68,	2.9	30
72	The Energization and Radiation in Geospace (ERG) Project. <i>Geophysical Monograph Series</i> , <b>2013</b> , 103-116	1.1	25
71	Visualization of rapid electron precipitation via chorus element wave-particle interactions. <i>Nature Communications</i> , <b>2019</b> , 10, 257	17.4	22
70	Multiscale temporal variations of pulsating auroras: On-off pulsation and a few Hz modulation. <i>Journal of Geophysical Research: Space Physics</i> , <b>2014</b> , 119, 3514-3527	2.6	21
69	Statistical analysis of monochromatic whistler waves near the Moon detected by Kaguya. <i>Annales Geophysicae</i> , <b>2011</b> , 29, 889-893	2	19
68	Direct measurements of two-way wave-particle energy transfer in a collisionless space plasma. <i>Science</i> , <b>2018</b> , 361, 1000-1003	33.3	19
67	Estimation of the permittivity and porosity of the lunar uppermost basalt layer based on observations of impact craters by SELENE. <i>Journal of Geophysical Research E: Planets</i> , <b>2013</b> , 118, 1453-1467	4.1	18
66	Significance of Wave-Particle Interaction Analyzer for direct measurements of nonlinear wave-particle interactions. <i>Annales Geophysicae</i> , <b>2013</b> , 31, 503-512	2	18
65	Software-type Wave-Particle Interaction Analyzer on board the Arase satellite. <i>Earth, Planets and Space</i> , <b>2018</b> , 70,	2.9	17
64	Electrostatic Electron Cyclotron Harmonic Waves as a Candidate to Cause Pulsating Auroras. <i>Geophysical Research Letters</i> , <b>2018</b> , 45, 12,661	4.9	17
63	Anomalous Trapping of Low Pitch Angle Electrons by Coherent Whistler Mode Waves. <i>Journal of Geophysical Research: Space Physics</i> , <b>2019</b> , 124, 5568-5583	2.6	16
62	Statistical study of broadband whistler-mode waves detected by Kaguya near the Moon. <i>Geophysical Research Letters</i> , <b>2012</b> , 39, n/a-n/a	4.9	16
61	Dependence of Generation of Whistler Mode Chorus Emissions on the Temperature Anisotropy and Density of Energetic Electrons in the Earth's Inner Magnetosphere. <i>Journal of Geophysical Research: Space Physics</i> , <b>2018</b> , 123, 1165-1177	2.6	15
60	Microscopic Observations of Pulsating Aurora Associated With Chorus Element Structures: Coordinated Arase Satellite-PWING Observations. <i>Geophysical Research Letters</i> , <b>2018</b> , 45, 12,125-12,134	4.9	15
59	Saturn chorus intensity variations. <i>Journal of Geophysical Research: Space Physics</i> , <b>2013</b> , 118, 5592-5602	2.6	14
58	Geospace exploration project: Arase (ERG). <i>Journal of Physics: Conference Series</i> , <b>2017</b> , 869, 012095	0.3	13

57	Detection of Propagating Fast Sausage Waves through Detailed Analysis of a Zebra-pattern Fine Structure in a Solar Radio Burst. <i>Astrophysical Journal Letters</i> , <b>2018</b> , 855, L29	7.9	13
56	A new instrument for the study of wave-particle interactions in space: One-chip Wave-Particle Interaction Analyzer. <i>Earth, Planets and Space</i> , <b>2009</b> , 61, 765-778	2.9	13
55	Ion hole formation and nonlinear generation of electromagnetic ion cyclotron waves: THEMIS observations. <i>Geophysical Research Letters</i> , <b>2017</b> , 44, 8730-8738	4.9	11
54	Whistler mode chorus enhancements in association with energetic electron signatures in the Jovian magnetosphere. <i>Journal of Geophysical Research</i> , <b>2011</b> , 116, n/a-n/a		11
53	Simulation of mode conversion process from upper-hybrid waves to LO-mode waves in the vicinity of the plasmopause. <i>Annales Geophysicae</i> , <b>2010</b> , 28, 1289-1297	2	11
52	Fine scale structures of pulsating auroras in the early recovery phase of substorm using ground-based EMCCD camera. <i>Journal of Geophysical Research</i> , <b>2012</b> , 117, n/a-n/a		11
51	Temporal and Spatial Correspondence of Pc1/EMIC Waves and Relativistic Electron Precipitations Observed With Ground-Based Multi-Instruments on 27 March 2017. <i>Geophysical Research Letters</i> , <b>2018</b> , 45, 13,182	4.9	11
50	Theory, modeling, and integrated studies in the Arase (ERG) project. <i>Earth, Planets and Space</i> , <b>2018</b> , 70,	2.9	10
49	A direct link between chorus emissions and pulsating aurora on timescales from milliseconds to minutes: A case study at subauroral latitudes. <i>Journal of Geophysical Research: Space Physics</i> , <b>2015</b> , 120, 9617-9631	2.6	10
48	A simulation study of the current-voltage relationship of the Io tail aurora. <i>Journal of Geophysical Research</i> , <b>2012</b> , 117, n/a-n/a		10
47	Frequency drift of Saturn chorus emission compared to nonlinear theory. <i>Journal of Geophysical Research: Space Physics</i> , <b>2013</b> , 118, 982-990	2.6	9
46	Simulation of mode conversion from UHR-mode wave to LO-mode wave in an inhomogeneous plasma with different wave normal angles. <i>Earth, Planets and Space</i> , <b>2009</b> , 61, 1243-1254	2.9	9
45	Conjugate Observations of Dayside and Nightside VLF Chorus and QP Emissions Between Arase (ERG) and Kannuslehto, Finland. <i>Journal of Geophysical Research: Space Physics</i> , <b>2020</b> , 125, e2019JA026663	2.6	9
44	Data processing in Software-type WaveParticle Interaction Analyzer onboard the Arase satellite. <i>Earth, Planets and Space</i> , <b>2018</b> , 70,	2.9	9
43	Harmonics of whistler-mode waves near the Moon. <i>Earth, Planets and Space</i> , <b>2015</b> , 67, 36	2.9	8
42	First Direct Observations of Propagation of Discrete Chorus Elements From the Equatorial Source to Higher Latitudes, Using the Van Allen Probes and Arase Satellites. <i>Journal of Geophysical Research: Space Physics</i> , <b>2020</b> , 125, e2020JA028315	2.6	8
41	Substructures with luminosity modulation and horizontal oscillation in pulsating patch: Principal component analysis application to pulsating aurora. <i>Journal of Geophysical Research: Space Physics</i> , <b>2016</b> , 121, 2360-2373	2.6	8
40	Numerical simulation of resonant scattering of energetic electrons in the outer radiation belt. <i>Earth, Planets and Space</i> , <b>2005</b> , 57, 117-124	2.9	7

39	Simulation study on nonlinear frequency shift of narrow band whistler-mode waves in a homogeneous magnetic field. <i>Earth, Planets and Space</i> , <b>2006</b> , 58, 1219-1225	2.9	7
38	Polarization observations of 4fce auroral roar emissions. <i>Geophysical Research Letters</i> , <b>2015</b> , 42, 249-255	4.9	6
37	Observation of wake-induced plasma waves around an ionospheric sounding rocket. <i>Journal of Geophysical Research: Space Physics</i> , <b>2015</b> , 120, 5160-5175	2.6	6
36	Evaluation of waveform data processing in Wave-Particle Interaction Analyzer. <i>Earth, Planets and Space</i> , <b>2014</b> , 66,	2.9	6
35	Quasi-periodic rapid motion of pulsating auroras. <i>Polar Science</i> , <b>2016</b> , 10, 183-191	2.3	5
34	A computer simulation study on the mode conversion process from slow X-mode to fast X-mode by the tunneling effect. <i>Earth, Planets and Space</i> , <b>2006</b> , 58, e53-e56	2.9	5
33	Method for direct detection of pitch angle scattering of energetic electrons caused by whistler mode chorus emissions. <i>Journal of Geophysical Research: Space Physics</i> , <b>2016</b> , 121, 5137-5148	2.6	5
32	Study of a condition for the mode conversion from purely perpendicular electrostatic waves to electromagnetic waves. <i>Physics of Plasmas</i> , <b>2016</b> , 23, 072119	2.1	5
31	A Systematic Study in Characteristics of Lower Band Rising-Tone Chorus Elements. <i>Journal of Geophysical Research: Space Physics</i> , <b>2019</b> , 124, 9003-9016	2.6	5
30	Fine Structure of Chorus Wave Packets: Comparison Between Observations and Wave Generation Models. <i>Journal of Geophysical Research: Space Physics</i> , <b>2021</b> , 126, e2021JA029330	2.6	5
29	Polarization Characteristics of Zebra Patterns in Type IV Solar Radio Bursts. <i>Astrophysical Journal</i> , <b>2017</b> , 842, 45	4.7	4
28	GENERATION MECHANISM OF THE SLOWLY DRIFTING NARROWBAND STRUCTURE IN THE TYPE IV SOLAR RADIO BURSTS OBSERVED BY AMATERAS. <i>Astrophysical Journal</i> , <b>2014</b> , 787, 45	4.7	4
27	Io torus plasma transport under interchange instability and flow shears. <i>Planetary and Space Science</i> , <b>2012</b> , 62, 41-47	2	4
26	Effect of photo-dissociation on the spreading of OH and O clouds in Saturn's inner magnetosphere. <i>Journal of Geophysical Research</i> , <b>2012</b> , 117, n/a-n/a		4
25	Spatial Extent of Quasiperiodic Emissions Simultaneously Observed by Arase and Van Allen Probes on 29 November 2018. <i>Journal of Geophysical Research: Space Physics</i> , <b>2020</b> , 125, e2020JA028126	2.6	4
24	The role of deviation of magnetic field direction on the beaming angle: Extending of beaming angle theory. <i>Journal of Atmospheric and Solar-Terrestrial Physics</i> , <b>2016</b> , 142, 35-42	2	4
23	Study of the Transition from MRI to Magnetic Turbulence via Parasitic Instability by a High-order MHD Simulation Code. <i>Astrophysical Journal</i> , <b>2018</b> , 853, 174	4.7	3
22	A simulation study on the mode conversion process from slow Z-mode to LO mode by the tunneling effect and variations of beaming angle. <i>Advances in Space Research</i> , <b>2014</b> , 54, 2218-2223	2.4	3

21	Group-standing of whistler mode waves near the Moon. <i>Journal of Geophysical Research: Space Physics</i> , <b>2014</b> , 119, 2634-2648	2.6	3
20	A Numerical Study on the Resonant Scattering Process of Relativistic Electrons Via Whistler-Mode Waves in the Outer Radiation Belt. <i>Geophysical Monograph Series</i> , <b>2013</b> , 33-39	1.1	3
19	Effects of the Angle Between the Density Gradient and the External Magnetic Field on the Linear Mode Conversion and Resultant Beaming Angle of LO-Mode Radio Emissions. <i>Earth, Moon and Planets</i> , <b>2014</b> , 114, 1-15	0.6	3
18	Narrowband frequency-drift structures in solar type IV bursts. <i>Earth, Planets and Space</i> , <b>2013</b> , 65, 1555-1562	1.6	3
17	EFFECT OF BACKGROUND MAGNETIC FIELD ON TURBULENCE DRIVEN BY MAGNETOROTATIONAL INSTABILITY IN ACCRETION DISKS. <i>Astrophysical Journal</i> , <b>2013</b> , 767, 165	4.7	3
16	Pitch-Angle Scattering of Inner Magnetospheric Electrons Caused by ECH Waves Obtained With the Arase Satellite. <i>Geophysical Research Letters</i> , <b>2020</b> , 47, e2020GL089926	4.9	3
15	A Simulation Study of the Plasma Wave Enhancements in the Earth's Equatorial Plasmasphere. <i>Earth, Moon and Planets</i> , <b>2013</b> , 110, 131-141	0.6	2
14	Storm-time electron flux precipitation in the inner radiation belt caused by wave-particle interactions. <i>Annales Geophysicae</i> , <b>2009</b> , 27, 1669-1677	2	2
13	Correction to Relativistic particle acceleration in the process of whistler-mode chorus wave generation. <i>Geophysical Research Letters</i> , <b>2007</b> , 34,	4.9	2
12	Energy Transfer Between Hot Protons and Electromagnetic Ion Cyclotron Waves in Compressional Pc5 Ultra-low Frequency Waves. <i>Journal of Geophysical Research: Space Physics</i> , <b>2021</b> , 126, e2020JA028912	2.6	2
11	Simultaneous Pulsating Aurora and Microburst Observations With Ground-Based Fast Auroral Imagers and CubeSat FIREBIRD-II. <i>Geophysical Research Letters</i> , <b>2021</b> , 48, e2021GL094494	4.9	2
10	Test-particle simulation of energetic electron-H <sub>2</sub> O elastic collision along Saturn's magnetic field line around Enceladus. <i>Journal of Geophysical Research: Space Physics</i> , <b>2014</b> , 119, 8971-8978	2.6	1
9	Asymmetrical features of frequency and intensity in the Io-related Jovian decametric radio sources: Modeling of the Io-Jupiter system. <i>Journal of Geophysical Research</i> , <b>2010</b> , 115, n/a-n/a		1
8	The role of the electron convection term for the parallel electric field and electron acceleration in MHD simulations. <i>Physics of Plasmas</i> , <b>2011</b> , 18, 082901	2.1	1
7	Numerical study on the spatial extent of interaction region surrounding comet nucleus during pick-up process. <i>Earth, Planets and Space</i> , <b>2003</b> , 55, 705-711	2.9	1
6	Multievent Study of Characteristics and Propagation of Naturally Occurring ELF/VLF Waves Using High-Latitude Ground Observations and Conjunctions With the Arase Satellite. <i>Journal of Geophysical Research: Space Physics</i> , <b>2021</b> , 126, e2020JA028682	2.6	1
5	PSTEP: project for solar terrestrial environment prediction. <i>Earth, Planets and Space</i> , <b>2021</b> , 73,	2.9	1
4	A discussion on the mode conversion from purely perpendicular upper-hybrid mode waves to LO mode waves in an inhomogeneous plasma. <i>Advances in Space Research</i> , <b>2019</b> , 64, 1732-1739	2.4	0

- 3 Simultaneous ground- and satellite-based observation of MF/HF auroral radio emissions. *Journal of Geophysical Research: Space Physics*, **2016**, 121, 4530-4541 2.6
- 2 A simulation study of Io-related Jovian decametric radiation: Control factor of occurrence probability. *Journal of Geophysical Research: Space Physics*, **2013**, 118, 5082-5098 2.6
- 1 Parametric study of the resonant scattering process by narrow band whistler mode waves driven by temperature anisotropy. *Journal of Plasma Physics*, **2006**, 72, 935 2.7