

Aitaro Kato

List of Publications by Year in descending order

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Version: 2024-02-01

90
papers

3,875
citations

236925

25
h-index

128289

60
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98
all docs

98
docs citations

98
times ranked

2871
citing authors

#	ARTICLE	IF	CITATIONS
1	Structured regularization-based velocity structure estimation in local earthquake tomography for the adaptation to velocity discontinuities. <i>Earth, Planets and Space</i> , 2022, 74, .	2.5	0
2	The generation of large earthquakes. <i>Nature Reviews Earth & Environment</i> , 2021, 2, 26-39.	29.7	79
3	Conjugate faulting and structural complexity on the young fault system associated with the 2000 Tottori earthquake. <i>Communications Earth & Environment</i> , 2021, 2, .	6.8	14
4	An Optimum 2D Seismic-Wavefield Reconstruction in Densely and Nonuniformly Distributed Stations: The Metropolitan Seismic Observation Network in Japan. <i>Seismological Research Letters</i> , 2021, 92, 2015-2027.	1.9	3
5	Spatial variations in seismicity characteristics in and around the source region of the 2019 Yamagata-Oki Earthquake, Japan. <i>Earth, Planets and Space</i> , 2021, 73, .	2.5	3
6	Improved 3D P Wave Azimuthal Anisotropy Structure Beneath the Tokyo Metropolitan Area, Japan: New Interpretations of the Dual Subduction System Revealed by Seismic Anisotropy. <i>Journal of Geophysical Research: Solid Earth</i> , 2021, 126, e2020JB021194.	3.4	8
7	Evolution of aseismic slip rate along plate boundary faults before and after megathrust earthquakes. <i>Communications Earth & Environment</i> , 2021, 2, .	6.8	3
8	Graph-Partitioning Based Convolutional Neural Network for Earthquake Detection Using a Seismic Array. <i>Journal of Geophysical Research: Solid Earth</i> , 2021, 126, e2020JB020269.	3.4	17
9	Stress relaxation arrested the mainshock rupture of the 2016 Central Tottori earthquake. <i>Communications Earth & Environment</i> , 2021, 2, .	6.8	1
10	Detection of low-frequency earthquakes by the matched filter technique using the product of mutual information and correlation coefficient. <i>Earth, Planets and Space</i> , 2021, 73, .	2.5	4
11	The Preseismic and Postseismic Phases of the 700-km Deep M7.9 Bonin Islands Earthquake, Japan. <i>Geophysical Research Letters</i> , 2020, 47, e2019GL085589.	4.0	6
12	Detailed Spatial Slip Distribution for Short-Term Slow Slip Events Along the Nankai Subduction Zone, Southwest Japan. <i>Journal of Geophysical Research: Solid Earth</i> , 2020, 125, e2020JB019613.	3.4	12
13	Non-Double-Couple Microearthquakes in the Focal Area of the 2000 Western Tottori Earthquake (M 7.3) via Hyperdense Seismic Observations. <i>Geophysical Research Letters</i> , 2020, 47, e2019GL084841.	4.0	15
14	Stationarity of aftershock activities of the 2016 Central Tottori Prefecture earthquake revealed by dense seismic observation. <i>Earth, Planets and Space</i> , 2020, 72, .	2.5	6
15	Inelastic strain in the hypocentral region of the 2000 Western Tottori earthquake (M 7.3) inferred from aftershock seismic moment tensors. <i>Earth, Planets and Space</i> , 2020, 72, .	2.5	4
16	Detection of deep low-frequency earthquakes in the Nankai subduction zone over 11 years using a matched filter technique. <i>Earth, Planets and Space</i> , 2020, 72, .	2.5	22
17	Hyper Dense Seismic Observation for Investigation on Fault Zone Development: Application to Hypocentral Area of 2000 Western Tottori Earthquake. <i>Journal of Geography (Chigaku Zasshi)</i> , 2020, 129, 511-527.	0.3	6
18	Special Issue on Earthquake and Volcano Hazards Observation and Research Program. <i>Journal of Disaster Research</i> , 2020, 15, 69-69.	0.7	0

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19	Source fault model of the 2018 Mw 5.6 northern Osaka earthquake, Japan, inferred from the aftershock sequence. <i>Earth, Planets and Space</i> , 2019, 71, .	2.5	18
20	Episodic tremor and slip silently invades strongly locked megathrust in the Nankai Trough. <i>Scientific Reports</i> , 2019, 9, 9270.	3.3	19
21	Seasonal Variations in Crustal Seismicity in Sanâ€n District, Southwest Japan. <i>Geophysical Research Letters</i> , 2019, 46, 3172-3179.	4.0	21
22	Matched Filtering Accelerated by Tensor Cores on Volta GPUs With Improved Accuracy Using Half-Precision Variables. <i>IEEE Signal Processing Letters</i> , 2019, 26, 1857-1861.	3.6	5
23	Seismic Evidence of an Early Afterslip During the 2012 Sequence in Emilia (Italy). <i>Geophysical Research Letters</i> , 2019, 46, 625-635.	4.0	12
24	Strength of tremor patches along deep transition zone of a megathrust. <i>Scientific Reports</i> , 2018, 8, 3655.	3.3	25
25	Temporal Activity Modulation of Deep Very Low Frequency Earthquakes in Shikoku, Southwest Japan. <i>Geophysical Research Letters</i> , 2018, 45, 733-738.	4.0	12
26	Improving the Detection of Lowâ€Magnitude Seismicity Preceding the Mwâ6.3 Lâ€™Aquila Earthquake: Development of a Scalable Code Based on the Cross Correlation of Template Earthquakes. <i>Bulletin of the Seismological Society of America</i> , 2018, 108, 471-480.	2.3	27
27	Modeling the dynamics of a phreatic eruption based on a tilt observation: Barrier breakage leading to the 2014 eruption of Mount Ontake, Japan. <i>Journal of Geophysical Research: Solid Earth</i> , 2017, 122, 1007-1024.	3.4	19
28	Receiver function images of the distorted Philippine Sea slab contact with the continental crust: Implications for generation of the 1891 Nobi earthquake (Mj 8.0). <i>Tectonophysics</i> , 2017, 717, 41-50.	2.2	1
29	Down-dip variations in a subducting low-velocity zone linked to episodic tremor and slip: a new constraint from ScSp waves. <i>Scientific Reports</i> , 2017, 7, 2868.	3.3	9
30	Foreshock migration preceding the 2016 <i>M_w</i> 7.0 Kumamoto earthquake, Japan. <i>Geophysical Research Letters</i> , 2016, 43, 8945-8953.	4.0	96
31	The 2016 Kumamoto earthquake sequence. <i>Proceedings of the Japan Academy Series B: Physical and Biological Sciences</i> , 2016, 92, 358-371.	3.8	48
32	Connecting slow earthquakes to huge earthquakes. <i>Science</i> , 2016, 353, 253-257.	12.6	458
33	Accelerated nucleation of the 2014 Iquique, Chile Mw 8.2 Earthquake. <i>Scientific Reports</i> , 2016, 6, 24792.	3.3	87
34	Monitoring eruption activity using temporal stress changes at Mount Ontake volcano. <i>Nature Communications</i> , 2016, 7, 10797.	12.8	23
35	Source mechanism of a VLP event immediately before the 2014 eruption of Mt. Ontake, Japan. <i>Earth, Planets and Space</i> , 2015, 67, .	2.5	26
36	Hypocenter migration and crustal seismic velocity distribution observed for the inland earthquake swarms induced by the 2011 Tohokuâ€Oki earthquake in NE Japan: implications for crustal fluid distribution and crustal permeability. <i>Geofluids</i> , 2015, 15, 293-309.	0.7	59

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37	The weakened lower crust beneath the Nobi fault system, Japan: Implications for stress accumulation to the seismogenic zone. <i>Tectonophysics</i> , 2015, 655, 147-160.	2.2	3
38	Large heterogeneous structure beneath the Atotsugawa Fault, central Japan, revealed by seismic refraction and reflection experiments. <i>Tectonophysics</i> , 2015, 657, 144-154.	2.2	2
39	Preparatory and precursory processes leading up to the 2014 phreatic eruption of Mount Ontake, Japan. <i>Earth, Planets and Space</i> , 2015, 67, .	2.5	93
40	Vp and Vs Structures in the Crust of Tokai Region, Central Japan, Estimated by Seismic ACROSS Signals. <i>Zisin (Journal of the Seismological Society of Japan 2nd Ser)</i> , 2014, 67, 1-24.	0.2	1
41	Non-volcanic seismic swarm and fluid transportation driven by subduction of the Philippine Sea slab beneath the Kii Peninsula, Japan. <i>Earth, Planets and Space</i> , 2014, 66, .	2.5	27
42	Multiple slow slip events during a foreshock sequence of the 2014 Iquique, Chile <i>M_w</i> 8.1 earthquake. <i>Geophysical Research Letters</i> , 2014, 41, 5420-5427.	4.0	125
43	Detection of a hidden Boso slow slip event immediately after the 2011 <i>M_w</i> 9.0 Tohoku-Oki earthquake, Japan. <i>Geophysical Research Letters</i> , 2014, 41, 5868-5874.	4.0	26
44	Imaging of the early acceleration phase of the 2013-2014 Boso slow slip event. <i>Geophysical Research Letters</i> , 2014, 41, 7493-7500.	4.0	16
45	Step-like migration of early aftershocks following the 2007 <i>M_w</i> 6.7 Noto-Hanto earthquake, Japan. <i>Geophysical Research Letters</i> , 2014, 41, 3864-3869.	4.0	36
46	The preparatory phase of the 2009 <i>M_w</i> 6.3 L'Aquila earthquake by improving the detection capability of low-magnitude foreshocks. <i>Geophysical Research Letters</i> , 2014, 41, 6137-6144.	4.0	58
47	Investigating the role of the Itoigawa-Shizuoka tectonic line towards the evolution of the Northern Fossa Magna rift basin. <i>Tectonophysics</i> , 2014, 615-616, 12-26.	2.2	15
48	Slow Slip Transients Before the 2011 Tohoku-Oki Earthquake. <i>Journal of Disaster Research</i> , 2014, 9, 311-316.	0.7	2
49	Special Issue on Challenges of Earthquake Forecast Research Illuminated by the 2011 Tohoku-Oki Earthquake. <i>Journal of Disaster Research</i> , 2014, 9, 247-247.	0.7	0
50	Response of seismicity to static and dynamic stress changes induced by the 2011 <i>M</i>9.0 Tohoku-Oki earthquake. <i>Geophysical Research Letters</i> , 2013, 40, 3572-3578.	4.0	43
51	Time-dependent earthquake probability calculations for southern Kanto after the 2011 M9.0 Tohoku earthquake. <i>Geophysical Journal International</i> , 2013, 193, 914-919.	2.4	5
52	Along-strike structural changes controlled by dehydration-related fluids within the Philippine Sea plate around the segment boundary of a megathrust earthquake beneath the Kii peninsula, southwest Japan. <i>Geophysical Research Letters</i> , 2013, 40, 4839-4844.	4.0	11
53	Anisotropic structures of oceanic slab and mantle wedge in a deep low-frequency tremor zone beneath the Kii Peninsula, SW Japan. <i>Journal of Geophysical Research: Solid Earth</i> , 2013, 118, 1091-1097.	3.4	12
54	Are the frictional properties of creeping faults persistent? Evidence from rapid afterslip following the 2011 Tohoku-Oki earthquake. <i>Geophysical Research Letters</i> , 2013, 40, 3613-3617.	4.0	32

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55	Imaging the source regions of normal faulting sequences induced by the 2011 M _w 9.0 Tohoku-Oki earthquake. <i>Geophysical Research Letters</i> , 2013, 40, 273-278.	4.0	35
56	Propagation of Slow Slip Leading Up to the 2011 M _w 9.0 Tohoku-Oki Earthquake. <i>Science</i> , 2012, 335, 705-708.	12.6	584
57	Regional extent of the large coseismic slip zone of the 2011 Mw 9.0 Tohoku-Oki earthquake delineated by on-fault aftershocks. <i>Geophysical Research Letters</i> , 2012, 39, .	4.0	103
58	Modeling the development of a complex fault configuration in the source region of two destructive intraplate earthquakes in the mid-Niigata region. <i>Tectonophysics</i> , 2012, 562-563, 26-33.	2.2	5
59	Seismic structure of the source region of the 2007 Chuetsu-oki earthquake revealed by offshore-onshore seismic survey: Asperity zone of intraplate earthquake delimited by crustal inhomogeneity. <i>Tectonophysics</i> , 2012, 562-563, 34-47.	2.2	11
60	Three-dimensional Attenuation Structure beneath the Tokai Region, Central Japan Derived Using Local Earthquake Spectra. <i>Zisin (Journal of the Seismological Society of Japan 2nd Ser)</i> , 2012, 65, 175-187.	0.2	4
61	Anomalous depth dependency of the stress field in the 2007 Noto Hanto, Japan, earthquake: Potential involvement of a deep fluid reservoir. <i>Geophysical Research Letters</i> , 2011, 38, n/a-n/a.	4.0	18
62	A normal-faulting seismic sequence triggered by the 2011 off the Pacific coast of Tohoku Earthquake: Wholesale stress regime changes in the upper plate. <i>Earth, Planets and Space</i> , 2011, 63, 745-748.	2.5	105
63	Seismicity and crustal structure in the vicinity of the southern Itoigawa-Shizuoka Tectonic Line. <i>Earth, Planets and Space</i> , 2010, 62, 223-235.	2.5	3
64	Gravity changes observed between 2004 and 2009 near the Tokai slow-slip area and prospects for detecting fluid flow during future slow-slip events. <i>Earth, Planets and Space</i> , 2010, 62, 905-913.	2.5	14
65	Deep crustal structure around the Atotsugawa fault system, central Japan: A weak zone below the seismogenic zone and its role in earthquake generation. <i>Earth, Planets and Space</i> , 2010, 62, 555-566.	2.5	18
66	Dynamic rupture of crosscutting faults: A possible rupture process for the 2007 M _w 6.6 Niigata-ken Chuetsu-Oki earthquake. <i>Journal of Geophysical Research</i> , 2010, 115, .	3.3	11
67	Variations of fluid pressure within the subducting oceanic crust and slow earthquakes. <i>Geophysical Research Letters</i> , 2010, 37, .	4.0	133
68	Non-volcanic seismic swarms triggered by circulating fluids and pressure fluctuations above a solidified diorite intrusion. <i>Geophysical Research Letters</i> , 2010, 37, .	4.0	28
69	Reactivations of boundary faults within a buried ancient rift system by ductile creeping of weak shear zones in the overpressured lower crust: The 2004 mid-Niigata Prefecture Earthquake. <i>Tectonophysics</i> , 2010, 486, 101-107.	2.2	4
70	Asperity and Barriers of the 2004 Mid-Niigata Prefecture Earthquake Revealed by Highly Dense Seismic Observations. <i>Bulletin of the Seismological Society of America</i> , 2010, 100, 298-306.	2.3	23
71	Seismic structure in and around the source area of the 2004 mid-Niigata, Japan, earthquake: 3-D waveform modelling based on local tomography images. <i>Geophysical Journal International</i> , 2009, 177, 145-160.	2.4	3
72	Fine structure of P-wave velocity distribution along the Atotsugawa fault, central Japan. <i>Tectonophysics</i> , 2009, 472, 95-104.	2.2	5

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73	Reactivation of ancient rift systems triggers devastating intraplate earthquakes. <i>Geophysical Research Letters</i> , 2009, 36, .	4.0	41
74	Highly resolved distribution of aftershocks of the 2007 Noto Hanto Earthquake by a dense seismic observation. <i>Earth, Planets and Space</i> , 2008, 60, 83-88.	2.5	22
75	Three-dimensional velocity structure in the source region of the Noto Hanto Earthquake in 2007 imaged by a dense seismic observation. <i>Earth, Planets and Space</i> , 2008, 60, 105-110.	2.5	23
76	Imaging heterogeneous velocity structures and complex aftershock distributions in the source region of the 2007 Niigataken Chuetsu-oki Earthquake by a dense seismic observation. <i>Earth, Planets and Space</i> , 2008, 60, 1111-1116.	2.5	39
77	High-resolution aftershock observations in the source region of the 2004 mid-Niigata Prefecture Earthquake. <i>Earth, Planets and Space</i> , 2007, 59, 923-928.	2.5	12
78	Delineation of probable asperities on the Atotsugawa fault, central Japan, using a dense temporary seismic network. <i>Geophysical Research Letters</i> , 2007, 34, .	4.0	17
79	Imaging the seismic structure and stress field in the source region of the 2004 mid-Niigata prefecture earthquake: Structural zones of weakness and seismogenic stress concentration by ductile flow. <i>Journal of Geophysical Research</i> , 2006, 111, .	3.3	51
80	Imaging crustal structure around the western segment of the Atotsugawa fault system, central Japan. <i>Geophysical Research Letters</i> , 2006, 33, .	4.0	15
81	Fault system of the 2004 Mid Niigata Prefecture Earthquake and its aftershocks. <i>Landslides</i> , 2005, 2, 153-157.	5.4	33
82	Multi-fault system of the 2004 Mid-Niigata Prefecture Earthquake and its aftershocks. <i>Earth, Planets and Space</i> , 2005, 57, 417-422.	2.5	48
83	Short-term spatiotemporal variations in the aftershock sequence of the 2004 mid-Niigata prefecture earthquake. <i>Earth, Planets and Space</i> , 2005, 57, 551-556.	2.5	13
84	Imaging the source region of the 2004 mid-Niigata prefecture earthquake and the evolution of a seismogenic thrust-related fold. <i>Geophysical Research Letters</i> , 2005, 32, n/a-n/a.	4.0	67
85	High Pore Fluid Pressure May Cause Silent Slip in the Nankai Trough. <i>Science</i> , 2004, 304, 1295-1298.	12.6	668
86	The Dependence of Constitutive Properties on Temperature and Effective Normal Stress in Seismogenic Environments. <i>Pure and Applied Geophysics</i> , 2004, 161, 1895.	1.9	6
87	Interpretation of various slip modes on a plate boundary based on laboratory and numerical experiments. <i>Earth, Planets and Space</i> , 2004, 56, 795-801.	2.5	3
88	Crustal structure in the northern Fossa Magna region, central Japan, modeled from refraction/wide-angle reflection data. <i>Earth, Planets and Space</i> , 2004, 56, 1293-1299.	2.5	25
89	Single and double asperity failures in a large-scale biaxial experiment. <i>Geophysical Research Letters</i> , 2001, 28, 451-454.	4.0	7
90	Effect of Water on Stability or Instability of the Shear Fracture Process of Rock.. <i>Journal of Geography (Chigaku Zasshi)</i> , 2000, 109, 554-563.	0.3	2