Naoyuki Kato

List of Publications by Year
in descending order

51 papers	1,326 citations	430442 18 h-index	344852 36 g-index
51 all docs	51 docs citations	51 times ranked	884 citing authors

#	Article	IF	Citations
1	Statistical physics of fracture, friction, and earthquakes. Reviews of Modern Physics, 2012, 84, 839-884.	16.4	168
2	A numerical simulation of earthquake cycles along the Nankai Trough in southwest Japan: lateral variation in frictional property due to the slab geometry controls the nucleation position. Earth and Planetary Science Letters, 2004, 228, 215-226.	1.8	119
3	A composite rate- and state-dependent law for rock friction. Geophysical Research Letters, 2001, 28, 1103-1106.	1.5	117
4	A numerical study on seismic coupling along subduction zones using a laboratory-derived friction law. Physics of the Earth and Planetary Interiors, 1997, 102, 51-68.	0.7	89
5	Interaction of slip on asperities: Numerical simulation of seismic cycles on a two-dimensional planar fault with nonuniform frictional property. Journal of Geophysical Research, 2004, 109, .	3.3	85
6	Strain-rate effect on frictional strength and the slip nucleation process. Tectonophysics, 1992, 211, 269-282.	0.9	72
7	Episodic aseismic slip in a two-degree-of-freedom block-spring model. Geophysical Research Letters, 2003, 30, .	1.5	66
8	Expansion of aftershock areas caused by propagating post-seismic sliding. Geophysical Journal International, 2007, 168, 797-808.	1.0	65
9	A possible model for large preseismic slip on a deeper extension of a seismic rupture plane. Earth and Planetary Science Letters, 2003, 216, 17-25.	1.8	55
10	Complex Earthquake Cycle Simulations Using a Two-Degree-of-Freedom Spring-Block Model with a Rate- and State-Friction Law. Pure and Applied Geophysics, 2013, 170, 745-765.	0.8	39
11	A shallow strong patch model for the 2011 great Tohoku-oki earthquake: A numerical simulation. Geophysical Research Letters, 2011, 38, n/a-n/a.	1.5	35
12	Numerical simulation of recurrence of asperity rupture in the Sanriku region, northeastern Japan. Journal of Geophysical Research, 2008, 113, .	3.3	34
13	Are the frictional properties of creeping faults persistent? Evidence from rapid afterslip following the 2011 Tohokuâ€oki earthquake. Geophysical Research Letters, 2013, 40, 3613-3617.	1.5	32
14	Megaquake cycle at the Tohoku subduction zone with thermal fluid pressurization near the surface. Earth and Planetary Science Letters, 2012, 325-326, 21-26.	1.8	31
15	A synthetic seismicity model for the Xianshuihe fault, southwestern China: simulation using a rate- and state-dependent friction law. Geophysical Journal International, 2007, 169, 286-300.	1.0	29
16	Effect of fault bend on the rupture propagation process of stick-slip. Tectonophysics, 1999, 310, 81-99.	0.9	24
17	Dependence of earthquake stress drop on critical slipâ€weakening distance. Journal of Geophysical Research, 2012, 117, .	3.3	24
18	Pore pressure distribution along plate interface that causes a shallow asperity of the 2011 great Tohoku-oki earthquake. Geophysical Research Letters, 2011, 38, n/a-n/a.	1.5	20

#	Article	IF	Citations
19	Seismic cycle on a strike-slip fault with rate- and state-dependent strength in an elastic layer overlying a viscoelastic half-space. Earth, Planets and Space, 2002, 54, 1077-1083.	0.9	19
20	A possible explanation for difference in stress drop between intraplate and interplate earthquakes. Geophysical Research Letters, 2009, 36, .	1.5	19
21	Deterministic chaos in a simulated sequence of slip events on a single isolated asperity. Geophysical Journal International, 2014, 198, 727-736.	1.0	18
22	Microfracture processes in the breakdown zone during dynamic shear rupture inferred from laboratory observation of near-fault high-frequency strong motion. Pure and Applied Geophysics, 1994, 142, 713-734.	0.8	17
23	Hypocenter depths of large interplate earthquakes and their relation to seismic coupling. Earth and Planetary Science Letters, 2003, 210, 53-63.	1.8	16
24	Effect of frictional heating on pre-seismic sliding: a numerical simulation using a rate-, state- and temperature-dependent frictionÂlaw. Geophysical Journal International, 2001, 147, 183-188.	1.0	14
25	Fracture energies at the rupture nucleation points of large interplate earthquakes. Earth and Planetary Science Letters, 2012, 353-354, 190-197.	1.8	14
26	Effect of a large outer rise earthquake on seismic cycles of interplate earthquakes: A model study. Journal of Geophysical Research, 2000, 105, 653-662.	3.3	13
27	Earthquake Cycles in a Model of Interacting Fault Patches: Complex Behavior at Transition from Seismic to Aseismic Slip. Bulletin of the Seismological Society of America, 2016, 106, 1772-1787.	1.1	12
28	Detection of a slow slip event from small signal in GPS data. Geophysical Research Letters, 2004, 31, n/a-n/a.	1.5	11
29	Interaction of parallel strike-slip faults and a characteristic distance in the spatial distribution of active faults. Geophysical Journal International, 2001, 144, 157-164.	1.0	9
30	Character of slip and stress due to interaction between fault segments along the dip direction of a subduction zone. Journal of Geodynamics, 2009, 48, 55-67.	0.7	9
31	Slowly Propagating Slip Events in a Composite Sample of Granite and Marble.. Journal of Physics of the Earth, 1991, 39, 461-476.	1.4	8
32	Simulation of seismic cycles of buried intersecting reverse faults. Journal of Geophysical Research, 2001, 106, 4221-4232.	3.3	7
33	Numerical simulation of the Kamaishi repeating earthquake sequence: Change in magnitude due to the 2011 Tohoku-oki earthquake. Tectonophysics, 2015, 651-652, 44-57.	0.9	5
34	Preparations for the Coming Large Earthquakes at the Nankai Trough. Numerical Simulation Study on Recent Changes in Crustal Deformation and Seismicity in the Tokai Area, Central Japan.. Journal of Geography (Chigaku Zasshi), 2001, 110, 557-565.	0.1	4
35	Fracture energies at the rupture nucleation points of large strike-slip earthquakes on the Xianshuihe fault, southwestern China. Journal of Asian Earth Sciences, 2017, 134, 55-62.	1.0	4
36	A Numerical Simulation of Postseismic Sliding on a Plate Boundary. Zisin (Journal of the) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 62 Td (Se	0.0	3

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37	A possible effect of an intermediate depth intraslab earthquake on seismic cycles of interplate earthquakes at a subduction zone. Earth, Planets and Space, 2004, 56, 553-561.	0.9	3
38	Interpretation of various slip modes on a plate boundary based on laboratory and numerical experiments. Earth, Planets and Space, 2004, 56, 795-801.	0.9	3
39	Earthquake triggering model based on normal-stress-dependent Nagata law: application to the 2016 Mie offshore earthquake. Earth, Planets and Space, 2020, 72, .	0.9	3
40	Materials Science and Seismological Approaches to Understanding Seismogenic Processes Estimation of Frictional Constitutive Parameters on a Plate Boundary: Earthquakes at Asperities off Sanriku, Northeastern Japan. Journal of Geography (Chigaku Zasshi), 2003, 112, 857-868.	0.1	2
41	Forecast experiment on the Kamaishi repeating earthquakes based on numerical simulations using friction law. Earth, Planets and Space, 2016, 68, .	0.9	2
42	Complexity in the Earthquake Cycle Increases with the Number of Interacting Patches. Pure and Applied Geophysics, 2020, 177, 4657-4676.	0.8	2
43	Propagation of a precursory detachment front along a seismogenic plate interface in a rateâ€“state friction model of earthquake cycles. Geophysical Journal International, 2021, 228, 17-38.	1.0	2
44	Near-Fault High-Frequency Ground Motion Generated by Stick-Slip Events. Zisin (Journal of the) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 46	0.0	1
45	Assessment of the finite element solutions for 3D spontaneous rupture using GeoFEM. Earth, Planets and Space, 2011, 63, 1119-1131.	0.9	1
46	Recovery of plate coupling at a ruptured asperity. Journal of Geophysical Research: Solid Earth, 2013, 118, 2154-2163.	1.4	1
47	Conditions for Consecutive Rupture of Adjacent Asperities. Journal of Disaster Research, 2009, 4, 106-110.	0.4	0
48	Consideration on the 2011 off the Pacific Coast of Tohoku Earthquake and the 2004 Sumatra Earthquake. JAMSTEC Report of Research and Development, 2011, 13, 17-33.	0.2	0
49	Application of Vector-Type Super Computer to Understanding Giant Earthquakes and Aftershocks on Subduction Plate Boundaries. , 2013, , 67-80.		0
50	Recognition of a Locked State in Plate Subduction from Microearthquake Seismicity. , 1999, , 669-687.		0
51	The Variation of Stresses due to Aseismic Sliding and its Effect on Seismic Activity. , 1999, , 425-442.		0