

# Keiiti Aki

## List of Publications by Year in descending order

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docs citations

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#	ARTICLE	IF	CITATIONS
1	Origin of coda waves: Source, attenuation, and scattering effects. <i>Journal of Geophysical Research</i> , 1975, 80, 3322-3342.	3.3	1,411
2	Scaling law of seismic spectrum. <i>Journal of Geophysical Research</i> , 1967, 72, 1217-1231.	3.3	1,253
3	Analysis of the seismic coda of local earthquakes as scattered waves. <i>Journal of Geophysical Research</i> , 1969, 74, 615-631.	3.3	789
4	Determination of the three-dimensional seismic structure of the lithosphere. <i>Journal of Geophysical Research</i> , 1977, 82, 277-296.	3.3	779
5	Determination of three-dimensional velocity anomalies under a seismic array using first P arrival times from local earthquakes: 1. A homogeneous initial model. <i>Journal of Geophysical Research</i> , 1976, 81, 4381-4399.	3.3	648
6	Attenuation of shear-waves in the lithosphere for frequencies from 0.05 to 25 Hz. <i>Physics of the Earth and Planetary Interiors</i> , 1980, 21, 50-60.	0.7	601
7	Characterization of barriers on an earthquake fault. <i>Journal of Geophysical Research</i> , 1979, 84, 6140-6148.	3.3	529
8	Fault plane with barriers: A versatile earthquake model. <i>Journal of Geophysical Research</i> , 1977, 82, 5658-5670.	3.3	471
9	A specific barrier model for the quantitative description of inhomogeneous faulting and the prediction of strong ground motion. Part II. Applications of the model. <i>Bulletin of the Seismological Society of America</i> , 1983, 73, 953-978.	1.1	433
10	Discrete wave-number representation of seismic-source wave fields. <i>Bulletin of the Seismological Society of America</i> , 1977, 67, 259-277.	1.1	411
11	Scattering and attenuation of shear waves in the lithosphere. <i>Journal of Geophysical Research</i> , 1980, 85, 6496-6504.	3.3	401
12	Fractal geometry in the San Andreas Fault System. <i>Journal of Geophysical Research</i> , 1987, 92, 345-355.	3.3	370
13	Source mechanism of volcanic tremor: fluid-driven crack models and their application to the 1963 kilauea eruption. <i>Journal of Volcanology and Geothermal Research</i> , 1977, 2, 259-287.	0.8	341
14	Surface motion of a layered medium having an irregular interface due to incident plane SH waves. <i>Journal of Geophysical Research</i> , 1970, 75, 933-954.	3.3	327
15	Asperities, barriers, characteristic earthquakes and strong motion prediction. <i>Journal of Geophysical Research</i> , 1984, 89, 5867-5872.	3.3	327
16	Site amplification of coda waves from local earthquakes in central California. <i>Bulletin of the Seismological Society of America</i> , 1986, 76, 627-648.	1.1	280
17	Seismic displacements near a fault. <i>Journal of Geophysical Research</i> , 1968, 73, 5359-5376.	3.3	270
18	Deep volcanic tremor and magma ascent mechanism under Kilauea, Hawaii. <i>Journal of Geophysical Research</i> , 1981, 86, 7095-7109.	3.3	259

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19	Scattering wave energy propagation in a random isotropic scattering medium: 1. Theory. Journal of Geophysical Research, 1991, 96, 607-619.	3.3	251
20	Local site effects on weak and strong ground motion. Tectonophysics, 1993, 218, 93-111.	0.9	223
21	A comparative study of scattering, intrinsic, and coda $Q^{*1}$ for Hawaii, Long Valley, and central California between 1.5 and 15.0 Hz. Journal of Geophysical Research, 1992, 97, 6643-6659.	3.3	222
22	Slow waves trapped in a fluid-filled infinite crack: Implication for volcanic tremor. Journal of Geophysical Research, 1987, 92, 9215-9223.	3.3	214
23	Scattering of $P$ waves under the Montana Lasa. Journal of Geophysical Research, 1973, 78, 1334-1346.	3.3	203
24	Evidence of Shallow Fault Zone Strengthening After the 1992M7.5 Landers, California, Earthquake. Science, 1998, 279, 217-219.	6.0	188
25	Spatial and temporal correlation between coda $Q$ and seismicity in China. Bulletin of the Seismological Society of America, 1988, 78, 741-769.	1.1	186
26	Seismic guided waves trapped in the fault zone of the Landers, California, earthquake of 1992. Journal of Geophysical Research, 1994, 99, 11705-11722.	3.3	182
27	Location of seismic events and eruptive fissures on the Piton de la Fournaise volcano using seismic amplitudes. Journal of Geophysical Research, 2003, 108, .	3.3	173
28	Magnitude-frequency relation for small earthquakes: A clue to the origin of $\mathcal{E}'_{\max}$ of large earthquakes. Journal of Geophysical Research, 1987, 92, 1349-1355.	3.3	168
29	A Probabilistic Synthesis of Precursory Phenomena. Maurice Ewing Series, 0, , 566-574.	0.1	159
30	Simultaneous determination of the seismic moment and attenuation of seismic surface waves. Bulletin of the Seismological Society of America, 1969, 59, 275-287.	1.1	153
31	Earthquake mechanism. Tectonophysics, 1972, 13, 423-446.	0.9	146
32	Pre-eruptive migration of earthquakes at the Piton de la Fournaise volcano (Réunion Island). Geophysical Journal International, 2005, 161, 549-558.	1.0	144
33	Precise focal depth determination from amplitude spectra of surface waves. Journal of Geophysical Research, 1970, 75, 5729-5744.	3.3	140
34	Temporal change in coda $Q$ before the Tangshan Earthquake of 1976 and the Haicheng Earthquake of 1975. Journal of Geophysical Research, 1986, 91, 665-673.	3.3	140
35	Seismic radiation from an $SH$ line source in a laterally heterogeneous planar fault zone. Bulletin of the Seismological Society of America, 1990, 80, 971-994.	1.1	131
36	Introduction: Seismic wave scattering in three-dimensionally heterogeneous earth. Pure and Applied Geophysics, 1988, 128, 1-6.	0.8	130

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37	Multiple scattering and energy transfer of seismic waves—Separation of scattering effect from intrinsic attenuation II. Application of the theory to Hindu Kush region. Pure and Applied Geophysics, 1988, 128, 49-80.	0.8	130
38	A NOTE ON THE USE OF MICROSEISMS IN DETERMINING THE SHALLOW STRUCTURES OF THE EARTH'S CRUST. Geophysics, 1965, 30, 665-666.	1.4	128
39	Seismic monitoring and modeling of an active volcano for prediction. Journal of Geophysical Research, 2000, 105, 16617-16640.	3.3	118
40	Characteristics of seismic waves composing Hawaiian volcanic tremor and gas-piston events observed by a near-source array. Journal of Geophysical Research, 1991, 96, 6199-6209.	3.3	117
41	Three-dimensional seismic structure of the lithosphere under Montana. Bulletin of the Seismological Society of America, 1976, 66, 501-524.	1.1	112
42	The fractal nature of the inhomogeneities in the lithosphere evidenced from seismic wave scattering. Pure and Applied Geophysics, 1985, 123, 805-818.	0.8	102
43	A precise, continuous measurement of seismic velocity for monitoring in situ stress. Journal of Geophysical Research, 1974, 79, 399-406.	3.3	95
44	Depth-dependent structure of the Landers fault zone from trapped waves generated by aftershocks. Journal of Geophysical Research, 2000, 105, 6237-6254.	3.3	95
45	Evidence for magma intrusion during the Mammoth Lakes Earthquakes of May 1980 and implications of the absence of volcanic (harmonic) tremor. Journal of Geophysical Research, 1984, 89, 7689-7696.	3.3	91
46	Separation of intrinsic and scattering attenuation in southern California using TERRASCOPE data. Journal of Geophysical Research, 1994, 99, 17835-17848.	3.3	90
47	Focal depth and mechanism of mid-ocean ridge earthquakes. Journal of Geophysical Research, 1973, 78, 1818-1831.	3.3	81
48	Mapping of the high-frequency source radiation for the Loma Prieta Earthquake, California. Journal of Geophysical Research, 1993, 98, 11981-11993.	3.3	81
49	Scattering conversions $P$ to $S$ versus $S$ to $P$ . Bulletin of the Seismological Society of America, 1992, 82, 1969-1972.	1.1	81
50	Seismicity simulation with a mass-spring model and a displacement hardening-softening friction law. Pure and Applied Geophysics, 1985, 122, 10-24.	0.8	79
51	Seismicity simulation with a rate- and state-dependent friction law. Pure and Applied Geophysics, 1986, 124, 487-513.	0.8	77
52	Multiple scattering of SH waves in 2-D media with many cavities. Pure and Applied Geophysics, 1992, 138, 353-390.	0.8	76
53	Comparison of two independent methods for the solution of wave-scattering problems: Response of a sedimentary basin to vertically incident SH waves. Journal of Geophysical Research, 1971, 76, 558-569.	3.3	70
54	Mechanism of Love-Wave excitation by explosive sources. Journal of Geophysical Research, 1972, 77, 1452-1475.	3.3	70

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55	Study of earthquake mechanism by a method of phase equalization applied to Rayleigh and Love waves. Journal of Geophysical Research, 1960, 65, 729-740.	3.3	69
56	Strong Motion Seismology. , 1987, , 3-39.		69
57	Solid earth tide and observed change in the in situ seismic velocity. Journal of Geophysical Research, 1973, 78, 1319-1322.	3.3	67
58	Amplitude spectra of surface waves from small earthquakes and underground nuclear explosions. Journal of Geophysical Research, 1971, 76, 3940-3952.	3.3	65
59	Some Problems in Statistical Seismology. Zisin (Journal of the Seismological Society of Japan 2nd Ser ), 1956, 8, 205-228.	0.0	61
60	Seismological evidences for the existence of soft thin layers in the upper mantle under Japan. Journal of Geophysical Research, 1968, 73, 585-594.	3.3	61
61	Interpretation of seismic data from hydraulic fracturing experiments at the Fenton Hill, New Mexico, hot dry rock geothermal site. Journal of Geophysical Research, 1982, 87, 936-944.	3.3	61
62	A delineation of the Nojima fault ruptured in the M7.2 Kobe, Japan, earthquake of 1995 using fault zone trapped waves. Journal of Geophysical Research, 1998, 103, 7247-7263.	3.3	60
63	Source and scattering effects on the spectra of small local earthquakes. Bulletin of the Seismological Society of America, 1981, 71, 1687-1700.	1.1	60
64	Seismic properties of a shallow magma reservoir in Kilauea Iki by active and passive experiments. Journal of Geophysical Research, 1978, 83, 2273-2282.	3.3	57
65	Location of tremor sources and estimation of lava output using tremor source amplitude on the Piton de la Fournaise volcano: 1. Location of tremor sources. Journal of Volcanology and Geothermal Research, 2005, 147, 268-290.	0.8	57
66	Quantitative analysis of long-period events recorded during hydrofracture experiments at Fenton Hill, New Mexico. Journal of Geophysical Research, 1990, 95, 21871-21884.	3.3	56
67	High-resolution maps of Coda Q in Japan and their interpretation by the brittle-ductile interaction hypothesis. Earth, Planets and Space, 2005, 57, 403-409.	0.9	54
68	Site amplification from S-wave coda in the Long Valley caldera region, California. Bulletin of the Seismological Society of America, 1991, 81, 2194-2213.	1.1	49
69	Effect of slip rate on stress drop. Pure and Applied Geophysics, 1986, 124, 515-529.	0.8	48
70	Location of tremor sources and estimation of lava output using tremor source amplitude on the Piton de la Fournaise volcano: 2. Estimation of lava output. Journal of Volcanology and Geothermal Research, 2005, 147, 291-308.	0.8	48
71	Higher-order interrelations between seismogenic structures and earthquake processes. Tectonophysics, 1992, 211, 1-12.	0.9	45
72	Determination of seismic moment tensor using surface waves. Tectonophysics, 1978, 49, 213-222.	0.9	44

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73	Bias in the estimate of seismic moment tensor by the linear inversion method. <i>Geophysical Journal International</i> , 1979, 59, 479-495.	1.0	44
74	Seismic source time function of propagating longitudinal-shear cracks. <i>Journal of Geophysical Research</i> , 1972, 77, 2034-2044.	3.3	42
75	Three-dimensional seismic inhomogeneities in the lithosphere and asthenosphere: Evidence for decoupling in the lithosphere and flow in the asthenosphere. <i>Reviews of Geophysics</i> , 1982, 20, 161-170.	9.0	41
76	Sealing law of far-field spectra based on observed parameters of the specific barrier model. <i>Pure and Applied Geophysics</i> , 1985, 123, 353-374.	0.8	41
77	Shallow structure of the Landers Fault Zone from explosion-generated trapped waves. <i>Journal of Geophysical Research</i> , 1999, 104, 20257-20275.	3.3	41
78	Temporal and spatial variation on coda $Q^{-1}$ associated with the North Palm Springs earthquake of July 8, 1986. <i>Pure and Applied Geophysics</i> , 1990, 133, 23-52.	0.8	38
79	Determination of local phase velocity by intercomparison of seismograms from strain and pendulum instruments. <i>Journal of Geophysical Research</i> , 1964, 69, 721-731.	3.3	37
80	Three-dimensional velocity structure beneath the Kanto district, Japan.. <i>Journal of Physics of the Earth</i> , 1982, 30, 255-281.	1.4	35
81	Regional change of coda $Q$ in the oceanic lithosphere. <i>Journal of Geophysical Research</i> , 1985, 90, 8651-8659.	3.3	35
82	3-D inhomogeneities in the upper mantle. <i>Tectonophysics</i> , 1981, 75, 31-40.	0.9	34
83	Source mechanism of the deep Colombian earthquake of 1970 July 31 from the free oscillation data. <i>Geophysical Journal International</i> , 1978, 55, 539-556.	1.0	32
84	San Jacinto Fault Zone guided waves: A discrimination for recently active fault strands near Anza, California. <i>Journal of Geophysical Research</i> , 1997, 102, 11689-11701.	3.3	32
85	Interpretation of source functions of circum-Pacific earthquakes obtained from long-period Rayleigh waves. <i>Journal of Geophysical Research</i> , 1960, 65, 2405-2417.	3.3	31
86	Ideal probabilistic earthquake prediction. <i>Tectonophysics</i> , 1989, 169, 197-198.	0.9	28
87	The use of Love waves for the study of earthquake mechanism. <i>Journal of Geophysical Research</i> , 1960, 65, 323-331.	3.3	27
88	Scattering and attenuation of high-frequency body waves ( $\leq 25$ Hz) in the lithosphere. <i>Physics of the Earth and Planetary Interiors</i> , 1981, 26, 241-243.	0.7	26
89	Attenuation and Scattering of Short-Period Seismic Waves in the Lithosphere. , 1981, , 515-541.		26
90	Correlogram Analyses of Seismograms by Means of a Simple Automatic Computer.. <i>Journal of Physics of the Earth</i> , 1956, 4, 71-79.	1.4	25

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91	Temporal correlation between coda $Q^{-1}$ and seismicity—evidence for a structural unit in the brittle-ductile transition zone. <i>Journal of Geodynamics</i> , 1993, 17, 95-119.	0.7	25
92	Possibilities of seismology in the 1980's. <i>Bulletin of the Seismological Society of America</i> , 1980, 70, 1969-1976.	1.1	25
93	A note on surface waves from the hardhat nuclear explosion. <i>Journal of Geophysical Research</i> , 1964, 69, 1131-1134.	3.3	24
94	Summary of discussions on coda waves at the Istanbul IASPEI meeting. <i>Physics of the Earth and Planetary Interiors</i> , 1991, 67, 1-3.	0.7	23
95	Boundary integral—Gaussian beam method for seismic wave scattering: SH waves in two-dimensional media. <i>Journal of the Acoustical Society of America</i> , 1989, 86, 375-386.	0.5	22
96	A low-velocity zone in the basement beneath the Valles Caldera, New Mexico. <i>Journal of Geophysical Research</i> , 1991, 96, 21583-21596.	3.3	22
97	Theory of Earthquake Prediction with Special Reference to Monitoring of the Quality Factor of Lithosphere by the Coda Method. , 1985, , 219-230.		22
98	A new view of earthquake and volcano precursors. <i>Earth, Planets and Space</i> , 2004, 56, 689-713.	0.9	21
99	Earthquake prediction, societal implications. <i>Reviews of Geophysics</i> , 1995, 33, 243.	9.0	18
100	Seismological evidence for the brittle-ductile interaction hypothesis on earthquake loading. <i>Earth, Planets and Space</i> , 2004, 56, 823-830.	0.9	18
101	Ground motion at mountains and sedimentary basins with vertical seismic velocity gradient. <i>Geophysical Journal International</i> , 1994, 116, 95-118.	1.0	17
102	Interrelation between fault zone structures and earthquake processes. <i>Pure and Applied Geophysics</i> , 1995, 145, 647-676.	0.8	17
103	Further study of the mechanism of circum-Pacific earthquakes from Rayleigh waves. <i>Journal of Geophysical Research</i> , 1960, 65, 4165-4172.	3.3	16
104	General coherence functions for amplitude and phase fluctuations in a randomly heterogeneous medium. <i>Geophysical Journal International</i> , 1991, 105, 155-162.	1.0	16
105	Coda $Q$ in two-layer random media. <i>Geophysical Journal International</i> , 1997, 128, 425-433.	1.0	16
106	Study of Love and Rayleigh waves from earthquakes with fault plane solutions or with known faulting. Part 1. A phase difference method based on a new model of earthquake source. <i>Bulletin of the Seismological Society of America</i> , 1964, 54, 511-527.	1.1	15
107	Assigning probability gain for precursors of four large Chinese earthquakes. <i>Journal of Geophysical Research</i> , 1983, 88, 2185-2190.	3.3	14
108	Earthquake Mechanism. <i>Developments in Geotectonics</i> , 1972, , 423-446.	0.3	10

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109	A perspective on the history of Strong Motion Seismology. Physics of the Earth and Planetary Interiors, 2003, 137, 5-11.	0.7	10
110	Reply to Leif Wennerberg's comment on "Simultaneous study of the source, path, and site effects on strong ground motion during the 1989 Loma Prieta earthquake: A preliminary result on pervasive nonlinear site effects". Bulletin of the Seismological Society of America, 1996, 86, 268-273.	1.1	10
111	Aspects of the mechanics of earthquake rupture related to the generation of high frequency waves and the prediction of strong ground motion. International Journal of Soil Dynamics and Earthquake Engineering, 1982, 1, 67-74.	0.3	9
112	Preliminary Results from a Field Experiment on Volcanic Events at Kilauea Using an Array of Digital Seismographs. IAVCEI Proceedings in Volcanology, 1992, , 168-189.	0.4	9
113	Effect of finite thickness of scattering layer on coda Q of local earthquakes. Journal of Geodynamics, 1996, 21, 191-203.	0.7	7
114	Recent results on the mechanism of earthquakes with implications for the prediction and control program. Tectonophysics, 1972, 14, 227-243.	0.9	5
115	Three-dimensional seismic velocity anomalies and their relation to local seismicity. Tectonophysics, 1979, 56, 85-88.	0.9	5
116	A shallow attenuating anomaly inside the ring fracture of the Valles Caldera, New Mexico. Journal of Volcanology and Geothermal Research, 1995, 67, 79-99.	0.8	5
117	Multiple Scattering and Energy Transfer of Seismic Waves"Separation of Scattering Effect from Intrinsic Attenuation II. Application of the Theory to Hindu Kush Region. , 1988, , 49-80.		5
118	Short period seismology. Journal of Computational Physics, 1984, 54, 3-17.	1.9	4
119	Automatic computation of impulse response seismograms of Rayleigh waves for mixed paths. Bulletin of the Seismological Society of America, 1961, 51, 29-34.	1.1	4
120	Revision of some results obtained in the study of the source function of Rayleigh waves. Journal of Geophysical Research, 1962, 67, 3645-3647.	3.3	3
121	5 Synthesis of earthquake science information and its public transfer: A history of the Southern California earthquake center. International Geophysics, 2002, , 39-49.	0.6	3
122	Reply [to "Comments on some papers concerning amplitudes of seismic surface waves"]. Journal of Geophysical Research, 1972, 77, 3827-3830.	3.3	2
123	Haskell's source mechanism papers and their impact on modern seismology. , 1990, , 42-45.		2
124	Seismicity Simulation with a Rate- and State-Dependent Friction Law. , 1986, , 487-513.		2
125	Interrelation between Fault Zone Structures and Earthquake Processes. , 1995, , 647-676.		2
126	Modelling elastic media with the wavelet transform. Geophysical Journal International, 2001, 146, 454-488.	1.0	1



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127	Scale-dependence in Earthquake Processes and Seismogenic Structures. , 2000, , 2249-2258.		1
128	Seismic Coda Waves: A Stochastic Process in Earth's Lithosphere. The IMA Volumes in Mathematics and Its Applications, 1997, , 1-24.	0.5	1