Egill Hauksson

List of Publications by Year
in descending order

129	9,400	38742 50	42399 92
papers	citations	h-index	g-index

130	130	130	4290
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Near-Field Investigations of the Landers Earthquake Sequence, April to July 1992. Science, 1993, 260, 171-176.	12.6	392
2	Waveform Relocated Earthquake Catalog for Southern California (1981 to June 2011). Bulletin of the Seismological Society of America, 2012, 102, 2239-2244.	2.3	346
3	P Wave Arrival Picking and Firstâ€Motion Polarity Determination With Deep Learning. Journal of Geophysical Research: Solid Earth, 2018, 123, 5120-5129.	3.4	333
4	The static stress change triggering model: Constraints from two southern California aftershock sequences. Journal of Geophysical Research, 1998, 103, 24427-24437.	3.3	310
5	Generalized Seismic Phase Detection with Deep Learning. Bulletin of the Seismological Society of America, 2018, 108, 2894-2901.	2.3	291
6	Hierarchical interlocked orthogonal faulting in the 2019 Ridgecrest earthquake sequence. Science, 2019, 366, 346-351.	12.6	284
7	Crustal stress field in southern California and its implications for fault mechanics. Journal of Geophysical Research, 2001, 106, 21859-21882.	3.3	283
8	Comprehensive analysis of earthquake source spectra in southern California. Journal of Geophysical Research, 2006, 111, n/a-n/a.	3.3	259
9	Crustal structure and seismicity distribution adjacent to the Pacific and North America plate boundary in southern California. Journal of Geophysical Research, 2000, 105, 13875-13903.	3.3	254
10	Superficial simplicity of the 2010 El Mayorâ€“Cucapah earthquake of Baja California in Mexico. Nature Geoscience, 2011, 4, 615-618.	12.9	225
11	The 1992 Landers Earthquake Sequence: Seismological observations. Journal of Geophysical Research, 1993, 98, 19835-19858.	3.3	215
12	Searching for hidden earthquakes in Southern California. Science, 2019, 364, 767-771.	12.6	212
13	Machine Learning Seismic Wave Discrimination: Application to Earthquake Early Warning. Geophysical Research Letters, 2018, 45, 4773-4779.	4.0	205
14	Earthquake Monitoring in Southern California for Seventy-Seven Years (1932-2008). Bulletin of the Seismological Society of America, 2010, 100, 423-446.	2.3	200
15	Community Fault Model (CFM) for Southern California. Bulletin of the Seismological Society of America, 2007, 97, 1793-1802.	2.3	188
16	Southern California Hypocenter Relocation with Waveform Cross-Correlation, Part 2: Results Using Source-Specific Station Terms and Cluster Analysis. Bulletin of the Seismological Society of America, 2005, 95, 904-915.	2.3	186
17	The 1994 Northridge earthquake sequence in California: Seismological and tectonic aspects. Journal of Geophysical Research, 1995, 100, 12335-12355.	3.3	175
18	Viscoelastic Flow in the Lower Crust after the 1992 Landers, California, Earthquake. , 1998, 282, 1689-1692.		171

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19	Applying a threeâ€dimensional velocity model, waveform cross correlation, and cluster analysis to locate southern California seismicity from 1981 to 2005. Journal of Geophysical Research, 2007, 112, .	3.3	166
20	Role of Fluids in Faulting Inferred from Stress Field Signatures. Science, 1999, 285, 236-239.	12.6	163
21	Computing a Large Refined Catalog of Focal Mechanisms for Southern California (1981-2010): Temporal Stability of the Style of Faulting. Bulletin of the Seismological Society of America, 2012, 102, 1179-1194.	2.3	152
22	Unified Structural Representation of the southern California crust and upper mantle. Earth and Planetary Science Letters, 2015, 415, 1-15.	4.4	149
23	Real-time seismology and earthquake hazard mitigation. Nature, 1997, 390, 461-464.	27.8	147
24	Determination of earthquake early warning parameters, Ï„candPd, for southern California. Geophysical Journal International, 2007, 170, 711-717.	2.4	143
25	Southern California Hypocenter Relocation with Waveform Cross-Correlation, Part 1: Results Using the Double-Difference Method. Bulletin of the Seismological Society of America, 2005, 95, 896-903.	2.3	142
26	PhaseLink: A Deep Learning Approach to Seismic Phase Association. Journal of Geophysical Research: Solid Earth, 2019, 124, 856-869.	3.4	136
27	State of stress from focal mechanisms before and after the 1992 landers earthquake sequence. Bulletin of the Seismological Society of America, 1994, 84, 917-934.	2.3	131
28	Attenuation models (QPandQS) in three dimensions of the southern California crust: Inferred fluid saturation at seismogenic depths. Journal of Geophysical Research, 2006, 111, n/a-n/a.	3.3	119
29	Initial investigation of the Landers, California, Earthquake of 28 June 1992 using TERRAscope. Geophysical Research Letters, 1992, 19, 2267-2270.	4.0	110
30	The 2010 M w 7.2 El Mayor-Cucapah Earthquake Sequence, Baja California, Mexico and Southernmost California, USA: Active Seismotectonics along the Mexican Pacific Margin. Pure and Applied Geophysics, 2011, 168, 1255-1277.	1.9	109
31	Aftershocks driven by afterslip and fluid pressure sweeping through a faultâ€fracture mesh. Geophysical Research Letters, 2017, 44, 8260-8267.	4.0	106
32	The 1999 Mw 7.1 Hector Mine, California, Earthquake Sequence: Complex Conjugate Strike-Slip Faulting. Bulletin of the Seismological Society of America, 2002, 92, 1154-1170.	2.3	97
33	Earthquakes, faulting, and stress in the Los Angeles Basin. Journal of Geophysical Research, 1990, 95, 15365-15394.	3.3	94
34	Abundant off-fault seismicity and orthogonal structures in the San Jacinto fault zone. Science Advances, 2017, 3, e1601946.	10.3	93
35	The tectonic crustal stress field and style of faulting along the Pacific North America Plate boundary in Southern California. Geophysical Journal International, 2013, 194, 100-117.	2.4	91
36	The Seismogenic Thickness of the Southern California Crust. Bulletin of the Seismological Society of America, 2004, 94, 940-960.	2.3	89

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37	Properties of the Aftershock Sequence of the 1999 Mw 7.1 Hector Mine Earthquake: Implications for Aftershock Hazard. Bulletin of the Seismological Society of America, 2002, 92, 1227-1240.	2.3	88
38	An Evaluation of the SCSN Moment Tensor Solutions: Robustness of the Mw Magnitude Scale, Style of Faulting, and Automation of the Method. Bulletin of the Seismological Society of America, 2006, 96, 1689-1705.	2.3	83
39	Real-time Finite Fault Rupture Detector (FinDer) for large earthquakes. Geophysical Journal International, 2012, 191, 803-812.	2.4	82
40	Reliable Realâ€Time Seismic Signal/Noise Discrimination With Machine Learning. Journal of Geophysical Research: Solid Earth, 2019, 124, 788-800.	3.4	80
41	Stress Orientations Obtained from Earthquake Focal Mechanisms: What Are Appropriate Uncertainty Estimates?. Bulletin of the Seismological Society of America, 2001, 91, 250-262.	2.3	77
42	The 1987 Whittier Narrows Earthquake in the Los Angeles Metropolitan Area, California. Science, 1988, 239, 1409-1412.	12.6	76
43	Realâ€time testing of the onâ€site warning algorithm in southern California and its performance during the July 29 2008 M_w5.4 Chino Hills earthquake. Geophysical Research Letters, 2009, 36, .	4.0	72
44	Wastewater disposal and earthquake swarm activity at the southern end of the Central Valley, California. Geophysical Research Letters, 2016, 43, 1092-1099.	4.0	72
45	A California Statewide Three-Dimensional Seismic Velocity Model from Both Absolute and Differential Times. Bulletin of the Seismological Society of America, 2010, 100, 225-240.	2.3	71
46	Fault systems of the 1971 San Fernando and 1994 Northridge earthquakes, southern California: Relocated aftershocks and seismic images from LARSE II. Geology, 2003, 31, 171.	4.4	68
47	A threeâ€dimensional crustal seismic velocity model for southern California from a composite event method. Journal of Geophysical Research, 2007, 112, .	3.3	62
48	Spectral Discrimination between Quarry Blasts and Earthquakes in Southern California. Bulletin of the Seismological Society of America, 2008, 98, 2073-2079.	2.3	62
49	Seismotectonics of the Newport-Inglewood fault zone in the Los Angeles basin, southern California. Bulletin of the Seismological Society of America, 1987, 77, 539-561.	2.3	61
50	A New Trigger Criterion for Improved Real-Time Performance of Onsite Earthquake Early Warning in Southern California. Bulletin of the Seismological Society of America, 2009, 99, 897-905.	2.3	60
51	Stress loading from viscous flow in the lower crust and triggering of aftershocks following the 1994 Northridge, California, Earthquake. Geophysical Research Letters, 1999, 26, 3209-3212.	4.0	51
52	Rapid Estimation of Earthquake Source and Ground-Motion Parameters for Earthquake Early Warning Using Data from a Single Three-Component Broadband or Strong-Motion Sensor. Bulletin of the Seismological Society of America, 2012, 102, 738-750.	2.3	51
53	Report on the August 2012 Brawley Earthquake Swarm in Imperial Valley, Southern California. Seismological Research Letters, 2013, 84, 177-189.	1.9	48
54	CISN ShakeAlert: An Earthquake Early Warning Demonstration System for California. Advanced Technologies in Earth Sciences, 2014, , 49-69.	0.9	48

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55	Regional tectonics of the Coso geothermal area along the intracontinental plate boundary in central eastern California: Three-dimensionalVpandVp/Vsmodels, spatial-temporal seismicity patterns, and seismogenic deformation. Journal of Geophysical Research, 2007, 112, .	3.3	44
56	Stress-drop heterogeneity within tectonically complex regions: a case study of San Gorgonio Pass, southern California. Geophysical Journal International, 2015, 202, 514-528.	2.4	44
57	A slow earthquake in the Santa Maria basin, California. Bulletin of the Seismological Society of America, 1992, 82, 2087-2096.	2.3	43
58	Crustal geophysics and seismicity in southern California. Geophysical Journal International, 2011, 186, 82-98.	2.4	41
59	How Often Can Earthquake Early Warning Systems Alert Sites With Highâ€Intensity Ground Motion?. Journal of Geophysical Research: Solid Earth, 2020, 125, e2019JB017718.	3.4	41
60	Southern California Seismic Network: Caltech/USGS Element of TriNet 1997-2001. Seismological Research Letters, 2001, 72, 690-704.	1.9	40
61	Terrascope and cube project at Caltech. Eos, 1991, 72, 564-564.	0.1	38
62	Preliminary Report on the 1995 Ridgecrest Earthquake Sequence in Eastern California. Seismological Research Letters, 1995, 66, 54-60.	1.9	37
63	The 1991 Sierra Madre earthquake sequence in southern California: Seismological and tectonic analysis. Bulletin of the Seismological Society of America, 1994, 84, 1058-1074.	2.3	36
64	Geophysical evidence for wedging in the San Gorgonio Pass structural knot, southern San Andreas fault zone, southern California. Bulletin of the Geological Society of America, 2005, 117, 1554.	3.3	35
65	California Integrated Seismic Network (CISN) Local Magnitude Determination in California and Vicinity. Bulletin of the Seismological Society of America, 2011, 101, 2685-2693.	2.3	35
66	The seismic cycle in southern California: Precursor or response?. Geophysical Research Letters, 1997, 24, 469-472.	4.0	33
67	Spatial Separation of Large Earthquakes, Aftershocks, and Background Seismicity: Analysis of Interseismic and Coseismic Seismicity Patterns in Southern California. Pure and Applied Geophysics, 2010, 167, 979-997.	1.9	33
68	Changes of Reporting Rates in the Southern California Earthquake Catalog, Introduced by a New Definition of ML. Bulletin of the Seismological Society of America, 2010, 100, 1733-1742.	2.3	33
69	The 3 December 1988 Pasadena, California earthquake: Evidence for strike-slip motion on the Raymond fault. Bulletin of the Seismological Society of America, 1990, 80, 474-482.	2.3	33
70	Preliminary Report on the 29 July 2008 Mw 5.4 Chino Hills, Eastern Los Angeles Basin, California, Earthquake Sequence. Seismological Research Letters, 2008, 79, 855-866.	1.9	31
71	An objective method for the assessment of fluid injectionâ€induced seismicity and application to tectonically active regions in central California. Journal of Geophysical Research: Solid Earth, 2015, 120, 7013-7032.	3.4	30
72	From Earthquake Source Parameters to Groundâ€Motion Warnings near You: The ShakeAlert Earthquake Information to Groundâ€Motion (eqInfo2GM) Method. Seismological Research Letters, 2019, 90, 1243-1257.	1.9	29

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73	Caltech/USGS Southern California Seismic Network (SCSN) and Southern California Earthquake Data Center (SCEDC): Data Availability for the 2019 Ridgecrest Sequence. Seismological Research Letters, 2020, 91, 1961-1970.	1.9	29
74	Anomalously large complete stress drop during the 2016 M_w 5.2 Borrego Springs earthquake inferred by waveform modeling and nearâ€source aftershock deficit. Geophysical Research Letters, 2017, 44, 5994-6001.	4.0	28
75	Seismic imaging in Long Valley, California, by surface and borehole techniques: An investigation of active tectonics. Eos, 1985, 66, 194-200.	0.1	27
76	Dissipative Intraplate Faulting During the 2016 M_w 6.2 Tottori, Japan Earthquake. Journal of Geophysical Research: Solid Earth, 2018, 123, 1631-1642.	3.4	26
77	Applying Depth Distribution of Seismicity to Determine Thermo-Mechanical Properties of the Seismogenic Crust in Southern California: Comparing Lithotectonic Blocks. Pure and Applied Geophysics, 2019, 176, 1061-1081.	1.9	26
78	The 1930 Santa Monica and the 1979 Malibu, California, earthquakes. Bulletin of the Seismological Society of America, 1986, 76, 1542-1559.	2.3	25
79	Tilt and Seismicity Changes in the Shumagin Seismic Gap. Science, 1983, 222, 322-325.	12.6	24
80	Liquefaction caused by the 2009 Olancha, California (USA), M5.2 earthquake. Engineering Geology, 2010, 116, 184-188.	6.3	23
81	Active tectonics in the Gulf of California and seismicity (M > 3.0) for the period 2002â€“2014. Tectonophysics, 2017, 719-720, 4-16.	2.2	23
82	Imaging the source region of the 2003 San Simeon earthquake within the weak Franciscan subduction complex, central California. Geophysical Research Letters, 2004, 31, .	4.0	22
83	Detailed 3D Fault Representations for the 2019 Ridgecrest, California, Earthquake Sequence. Bulletin of the Seismological Society of America, 2020, 110, 1818-1831.	2.3	21
84	Rapid scientific response to Landers quake. Eos, 1992, 73, 417-417.	0.1	20
85	Average Stress Drops of Southern California Earthquakes in the Context of Crustal Geophysics: Implications for Fault Zone Healing. Pure and Applied Geophysics, 2015, 172, 1359-1370.	1.9	20
86	Static stress drop in the 1994 Northridge, California, aftershock sequence. Bulletin of the Seismological Society of America, 1997, 87, 1495-1501.	2.3	20
87	The Virtual Seismologist in SeisComP3: A New Implementation Strategy for Earthquake Early Warning Algorithms. Seismological Research Letters, 2016, 87, 363-373.	1.9	18
88	Evolution of seismicity near the southernmost terminus of the San Andreas Fault: Implications of recent earthquake clusters for earthquake risk in southern California. Geophysical Research Letters, 2017, 44, 1293-1301.	4.0	18
89	Kinematics of postseismic relaxation from aftershock focal mechanisms of the 1994 Northridge, California, earthquake. Journal of Geophysical Research, 1997, 102, 24589-24603.	3.3	17
90	Seismotectonics of the Coso Rangeâ€“Indian Wells Valley region, California: Transtensional deformation along the southeastern margin of the Sierran microplate. , 2002, , .		16

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91	TriNet Strong-Motion Data from the M 7.1 Hector Mine, California, Earthquake of 16 October 1999. Bulletin of the Seismological Society of America, 2002, 92, 1525-1542.	2.3	16
92	Source Mechanism and Rupture Directivity of the 18 May 2009 MW 4.6 Inglewood, California, Earthquake. Bulletin of the Seismological Society of America, 2010, 100, 3269-3277.	2.3	16
93	Evidence for Vertical Partitioning of Strike-Slip and Compressional Tectonics from Seismicity, Focal Mechanisms, and Stress Drops in the East Los Angeles Basin Area, California. Bulletin of the Seismological Society of America, 2011, 101, 964-974.	2.3	15
94	Rupture process and energy budget of the 29 July 2008 M_w 5.4 Chino Hills, California, earthquake. Journal of Geophysical Research, 2012, 117, .	3.3	15
95	Downtown Los Angeles 52-Story High-Rise and Free-Field Response to an Oil Refinery Explosion. Earthquake Spectra, 2016, 32, 1793-1820.	3.1	13
96	Slowâ€Growing and Extendedâ€Duration Seismicity Swarms: Reactivating Joints or Foliations in the Cahuilla Valley Pluton, Central Peninsular Ranges, Southern California. Journal of Geophysical Research: Solid Earth, 2019, 124, 3933-3949.	3.4	13
97	Latency of Waveform Data Delivery from the Southern California Seismic Network during the 2019 Ridgecrest Earthquake Sequence and Its Effect on ShakeAlert. Seismological Research Letters, 2021, 92, 170-186.	1.9	13
98	Comparison between crustal density and velocity variations in southern California. Geophysical Research Letters, 2001, 28, 3087-3090.	4.0	11
99	Southern California Seismic Network Update. Seismological Research Letters, 2006, 77, 389-395.	1.9	11
100	A century of oil-field operations and earthquakes in the greater Los Angeles Basin, southern California. The Leading Edge, 2015, 34, 650-656.	0.7	11
101	Strong SH â€toâ€Love Wave Scattering off the Southern California Continental Borderland. Geophysical Research Letters, 2017, 44, 10,208.	4.0	11
102	Absolute Stress Fields in the Source Region of the 1992 Landers Earthquake. Journal of Geophysical Research: Solid Earth, 2018, 123, 8874-8890.	3.4	11
103	The Normal-Faulting 2020 MwÂ5.8 Lone Pine, Eastern California, Earthquake Sequence. Seismological Research Letters, 2021, 92, 679-698.	1.9	11
104	The Whittier Narrows, California Earthquake of October 1, 1987â€”Seismology. Earthquake Spectra, 1988, 4, 43-53.	3.1	10
105	Fault-perpendicular aftershock clusters following the 2003 Mw = 5.0 Big Bear, California, earthquake. Geophysical Research Letters, 2006, 33, .	4.0	10
106	Focal mechanisms and size distribution of earthquakes beneath the Krafla central volcano, NE Iceland. Journal of Geophysical Research: Solid Earth, 2016, 121, 5152-5168.	3.4	10
107	The 2015 Fillmore Earthquake Swarm and Possible Crustal Deformation Mechanisms near the Bottom of the Eastern Ventura Basin, California. Seismological Research Letters, 2016, 87, 807-815.	1.9	10
108	Seismicity, Stress State, and Style of Faulting of the Ridgecrest-Coso Region from the 1930s to 2019: Seismotectonics of an Evolving Plate Boundary Segment. Bulletin of the Seismological Society of America, 0, , .	2.3	10

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109	Detecting Significant Stress Drop Variations in Large Micro-Earthquake Datasets: A Comparison Between a Convergent Step-Over in the San Andreas Fault and the Ventura Thrust Fault System, Southern California. Pure and Applied Geophysics, 2017, 174, 2311-2330.	1.9	9
110	Source Functions and Path Effects from Earthquakes in the Farallon Transform Fault Region, Gulf of California, Mexico that Occurred on October 2013. Pure and Applied Geophysics, 2017, 174, 2239-2256.	1.9	9
111	Seismotectonics of an evolving intracontinental plate boundary, southeastern California. , 2009, , .		9
112	Emerging from the Stress Shadow of the 1992 Mw 7.3 Landers Southern California Earthquake? A Preliminary Assessment. Seismological Research Letters, 2002, 73, 33-38.	1.9	7
113	The Station Information System (SIS): A Centralized Repository for Populating, Managing, and Distributing Metadata of the Advanced National Seismic System Stations. Seismological Research Letters, 2018, 89, 47-55.	1.9	7
114	78 TriNet: A modern ground-motion seismic network. International Geophysics, 2003, 81, 1275-1284.	0.6	6
115	Active Pacific North America Plate boundary tectonics as evidenced by seismicity in the oceanic lithosphere offshore Baja California, Mexico. Geophysical Journal International, 2014, 196, 1619-1630.	2.4	6
116	Monitoring Data Quality by Comparing Coâ€Located Broadband and Strongâ€Motion Waveforms in Southern California Seismic Network. Seismological Research Letters, 2019, 90, 699-707.	1.9	5
117	A Statistical Method for Associating Earthquakes with Their Source Faults in Southern California. Bulletin of the Seismological Society of America, 2020, 110, 213-225.	2.3	5
118	Southern California Earthquake Data Now Available in the AWS Cloud. Seismological Research Letters, 2021, 92, 3238-3247.	1.9	5
119	Methods for Amplitude Calibration and Orientation Discrepancy Measurement: Comparing Coâ€Located Sensors of Different Types in the Southern California Seismic Network. Bulletin of the Seismological Society of America, 2019, 109, 1563-1570.	2.3	4
120	Spatial Separation of Large Earthquakes, Aftershocks, and Background Seismicity: Analysis of Interseismic and Coseismic Seismicity Patterns in Southern California. , 2010, , 125-143.		4
121	Seismotectonics. Reviews of Geophysics, 1991, 29, 721-733.	23.0	3
122	A Search for Temporal Variations in Station Terms in Southern California from 1984 to 2002. Bulletin of the Seismological Society of America, 2008, 98, 2118-2132.	2.3	3
123	Seismicity in a weak crust: the transtensional tectonics of the Brawley Seismic Zone section of the Pacificâ€“North America Plate Boundary in Southern California, USA. Geophysical Journal International, 2022, 231, 717-735.	2.4	3
124	Depth Determination of the 2010 El Mayorâ€Cucapah Earthquake Sequence (M â‰¥ 4.0). Journal of Geophysical Research: Solid Earth, 2019, 124, 6801-6814.	3.4	2
125	Regional Seismic Networks Operating along the West Coast of the United States of America. Seismological Research Letters, 2020, 91, 695-706.	1.9	2
126	Determining Moho Depth beneath Sedimentary Basins Using Regional Pn Multiples. Bulletin of the Seismological Society of America, 2019, 109, .	2.3	1

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127	Detecting Significant Stress Drop Variations in Large Micro-Earthquake Datasets: A Comparison Between a Convergent Step-Over in the San Andreas Fault and the Ventura Thrust Fault System, Southern California. Pageoph Topical Volumes, 2018, , 117-136.	0.2	0
128	Global positioning system resurvey of Southern California Seismic Network stations. Bulletin of the Seismological Society of America, 1995, 85, 361-374.	2.3	0
129	Source Functions and Path Effects from Earthquakes in the Farallon Transform Fault Region, Gulf of California, Mexico that Occurred on October 2013. Pageoph Topical Volumes, 2018, , 45-62.	0.2	0