Gregory C Beroza

List of Publications by Year
in descending order

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113 papers	10,388 citations	43973 48 h-index	35952 97 g-index
123 all docs	123 docs citations	123 times ranked	4964 citing authors

#	ARTICLE	IF	CITATIONS
1	Integrating deep neural networks with full-waveform inversion: Reparameterization, regularization, and uncertainty quantification. Geophysics, 2022, 87, R93-R109.	1.4	35
2	Statistical bounds on how induced seismicity stops. Scientific Reports, 2022, 12, 1184.	1.6	17
3	A Wrapper to Use a Machine-Learning-Based Algorithm for Earthquake Monitoring. Seismological Research Letters, 2022, 93, 1673-1682.	0.8	12
4	Earthquake Phase Association Using a Bayesian Gaussian Mixture Model. Journal of Geophysical Research: Solid Earth, 2022, 127, .	1.4	40
5	An Endâ€•Toâ€•End Earthquake Detection Method for Joint Phase Picking and Association Using Deep Learning. Journal of Geophysical Research: Solid Earth, 2022, 127, .	1.4	30
6	Toward improved urban earthquake monitoring through deep-learning-based noise suppression. Science Advances, 2022, 8, eabl3564.	4.7	19
7	MALMI: An Automated Earthquake Detection and Location Workflow Based on Machine Learning and Waveform Migration. Seismological Research Letters, 2022, 93, 2467-2483.	0.8	18
8	Automatic detection for a comprehensive view of Mayotte seismicity. Comptes Rendus - Geoscience, 2022, 354, 153-170.	0.4	10
9	DevelNet: Earthquake Detection on Develocorder Films with Deep Learning: Application to the Rangely Earthquake Control Experiment. Seismological Research Letters, 2022, 93, 2515-2528.	0.8	3
10	Relative earthquake location procedure for clustered seismicity with a single station. Geophysical Journal International, 2021, 225, 608-626.	1.0	3
11	Laboratory earthquake forecasting: A machine learning competition. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	3.3	50
12	Depth Constraints on Coseismic Velocity Changes From Frequencyâ€•Dependent Measurements of Repeating Earthquake Waveforms. Journal of Geophysical Research: Solid Earth, 2021, 126, e2020JB020421.	1.4	12
13	Network analysis of earthquake ground motion spatial correlation: a case study with the San Jacinto seismic nodal array. Geophysical Journal International, 2021, 225, 1704-1713.	1.0	5
14	Machine-Learning-Based High-Resolution Earthquake Catalog Reveals How Complex Fault Structures Were Activated during the 2016â€“2017 Central Italy Sequence. The Seismic Record, 2021, 1, 11-19.	1.3	68
15	A risk-based approach for managing hydraulic fracturingâ€“induced seismicity. Science, 2021, 372, 504-507.	6.0	24
16	Ambient noise Love wave attenuation tomography for the LASSIE array across the Los Angeles basin. Science Advances, 2021, 7, .	4.7	10
17	Machine learning and earthquake forecastingâ€”next steps. Nature Communications, 2021, 12, 4761.	5.8	60
18	Towards structural imaging using seismic ambient field correlation artefacts. Geophysical Journal International, 2021, 225, 1453-1465.	1.0	6

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19	Revisiting evidence for widespread seismicity in the upper mantle under Los Angeles. Science Advances, 2021, 7, .	4.7	8
20	Quantifying nuisance ground motion thresholds for induced earthquakes. Earthquake Spectra, 2021, 37, 789-802.	1.6	7
21	A Strategy for Choosing Redâ€Light Thresholds to Manage Hydraulic Fracturing Induced Seismicity in North America. Journal of Geophysical Research: Solid Earth, 2021, 126, e2021JB022340.	1.4	11
22	Shear wave structure of a transect of the Los Angeles basin from multimode surface waves and H/V spectral ratio analysis. Geophysical Journal International, 2020, 220, 415-427.	1.0	14
23	A Machineâ€Learning Approach for Earthquake Magnitude Estimation. Geophysical Research Letters, 2020, 47, e2019GL085976.	1.5	159
24	Quantifying the Effects of Nondiffuse Noise on Ballistic and Coda Wave Amplitude From Variances of Seismic Noise Interferometry in Southern California. Journal of Geophysical Research: Solid Earth, 2020, 125, e2019JB017617.	1.4	3
25	Seismic signal augmentation to improve generalization of deep neural networks. Advances in Geophysics, 2020, 61, 151-177.	1.1	37
26	Using a Deep Neural Network and Transfer Learning to Bridge Scales for Seismic Phase Picking. Geophysical Research Letters, 2020, 47, e2020GL088651.	1.5	72
27	Earthquake transformerâ€”an attentive deep-learning model for simultaneous earthquake detection and phase picking. Nature Communications, 2020, 11, 3952.	5.8	402
28	Revisiting the Timpson Induced Earthquake Sequence: A System of Two Parallel Faults. Geophysical Research Letters, 2020, 47, e2020GL089192.	1.5	10
29	Machineâ€Learningâ€Based Analysis of the Guyâ€Greenbrier, Arkansas Earthquakes: A Tale of Two Sequences. Geophysical Research Letters, 2020, 47, e2020GL087032.	1.5	37
30	Urban Seismic Site Characterization by Fiberâ€Optic Seismology. Journal of Geophysical Research: Solid Earth, 2020, 125, e2019JB018656.	1.4	77
31	Empirical and Synthetic Approaches to the Calibration of the Local Magnitude Scale, ML, in Southern Kansas. Bulletin of the Seismological Society of America, 2020, 110, 689-697.	1.1	7
32	Bayesian-Deep-Learning Estimation of Earthquake Location From Single-Station Observations. IEEE Transactions on Geoscience and Remote Sensing, 2020, 58, 8211-8224.	2.7	66
33	Seismic Signal Denoising and Decomposition Using Deep Neural Networks. IEEE Transactions on Geoscience and Remote Sensing, 2019, 57, 9476-9488.	2.7	263
34	Isolating and Suppressing the Spurious Nonâ€Diffuse Contributions to Ambient Seismic Field Correlations. Journal of Geophysical Research: Solid Earth, 2019, 124, 9653-9663.	1.4	6
35	Source Parameter Variability of Intermediateâ€Depth Earthquakes in Japanese Subduction Zones. Journal of Geophysical Research: Solid Earth, 2019, 124, 8704-8725.	1.4	7
36	CRED: A Deep Residual Network of Convolutional and Recurrent Units for Earthquake Signal Detection. Scientific Reports, 2019, 9, 10267.	1.6	198

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37	STanford EArthquake Dataset (STEAD): A Global Data Set of Seismic Signals for AI. IEEE Access, 2019, 7, 179464-179476.	2.6	191
38	Rapid Earthquake Association and Location. Seismological Research Letters, 2019, 90, 2276-2284.	0.8	114
39	Seismology with Dark Data: Imageâ€Based Processing of Analog Records Using Machine Learning for the Rangely Earthquake Control Experiment. Seismological Research Letters, 2019, 90, 553-562.	0.8	16
40	Robust Stress Drop Estimates of Potentially Induced Earthquakes in Oklahoma: Evaluation of Empirical Green's Function. Journal of Geophysical Research: Solid Earth, 2019, 124, 5854-5866.	1.4	14
41	Unsupervised Clustering of Seismic Signals Using Deep Convolutional Autoencoders. IEEE Geoscience and Remote Sensing Letters, 2019, 16, 1693-1697.	1.4	103
42	Machine learning for data-driven discovery in solid Earth geoscience. Science, 2019, 363, .	6.0	563
43	Foreshocks and Mainshock Nucleation of the 1999 <i>M</i>_{<i>w</i>} 7.1 Hector Mine, California, Earthquake. Journal of Geophysical Research: Solid Earth, 2019, 124, 1569-1582.	1.4	58
44	Earthquake Fingerprints: Extracting Waveform Features for Similarity-Based Earthquake Detection. Pure and Applied Geophysics, 2019, 176, 1037-1059.	0.8	28
45	Variabilities in probabilistic seismic hazard maps for natural and induced seismicity in the central and eastern United States. The Leading Edge, 2018, 37, 141a1-141a9.	0.4	3
46	Detecting earthquakes over a seismic network using single-station similarity measures. Geophysical Journal International, 2018, 213, 1984-1998.	1.0	35
47	Site characterization at Groningen gas field area through joint surface-borehole H/V analysis. Geophysical Journal International, 2018, 212, 412-421.	1.0	27
48	The Ambient Seismic Field at Groningen Gas Field: An Overview from the Surface to Reservoir Depth. Seismological Research Letters, 2018, 89, 1450-1466.	0.8	23
49	Shallow VS Imaging of the Groningen Area from Joint Inversion of Multimode Surface Waves and H/V Spectral Ratios. Seismological Research Letters, 2018, 89, 1720-1729.	0.8	27
50	Strong Shaking Predicted in Tokyo From an Expected M7+ Itoigawaâ€Shizuoka Earthquake. Journal of Geophysical Research: Solid Earth, 2018, 123, 3968-3992.	1.4	14
51	Evaluating the 2016 Oneâ€Year Seismic Hazard Model for the Central and Eastern United States Using Instrumental Groundâ€Motion Data. Seismological Research Letters, 2018, 89, 1185-1196.	0.8	8
52	On the Nature of Higherâ€Order Ambient Seismic Field Correlations. Journal of Geophysical Research: Solid Earth, 2018, 123, 7969-7982.	1.4	15
53	Tectonic tremor and LFEs on a reverse fault in Taiwan. Geophysical Research Letters, 2017, 44, 6683-6691.	1.5	8
54	Stress drops of induced and tectonic earthquakes in the central United States are indistinguishable. Science Advances, 2017, 3, e1700772.	4.7	95

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55	Seismicity During the Initial Stages of the Guyâ€Greenbrier, Arkansas, Earthquake Sequence. Journal of Geophysical Research: Solid Earth, 2017, 122, 9253-9274.	1.4	67
56	Lateral heterogeneity imaged by smallâ€aperture <i>ScS</i> retrieval from the ambient seismic field. Geophysical Research Letters, 2017, 44, 8276-8284.	1.5	21
57	Multicomponent C3 Greenâ€™s Functions for Improved Longâ€Period Groundâ€Motion Prediction. Bulletin of the Seismological Society of America, 2017, 107, 2836-2845.	1.1	9
58	Stress drop estimates of potentially induced earthquakes in the Guyâ€Greenbrier sequence. Journal of Geophysical Research: Solid Earth, 2016, 121, 6597-6607.	1.4	85
59	USGS scientists open to change. Science, 2016, 353, 998-998.	6.0	0
60	Constraints on the source parameters of lowâ€frequency earthquakes on the San Andreas Fault. Geophysical Research Letters, 2016, 43, 1464-1471.	1.5	59
61	Beyond basin resonance: characterizing wave propagation using a dense array and the ambient seismic field. Geophysical Journal International, 2016, 206, 1261-1272.	1.0	44
62	Reverse time migration for microseismic sources using the geometric mean as an imaging condition. Geophysics, 2016, 81, KS51-KS60.	1.4	130
63	Scalable Similarity Search in Seismology: A New Approach to Large-Scale Earthquake Detection. Lecture Notes in Computer Science, 2016, , 301-308.	1.0	6
64	Temporal variation in the magnitudeâ€frequency distribution during the Guyâ€Greenbrier earthquake sequence. Geophysical Research Letters, 2015, 42, 6639-6646.	1.5	58
65	Stochastic characterization of mesoscale seismic velocity heterogeneity in Long Beach, California. Geophysical Journal International, 2015, 203, 2049-2054.	1.0	36
66	Earthquake detection through computationally efficient similarity search. Science Advances, 2015, 1, e1501057.	4.7	219
67	Characterizing and Responding to Seismic Risk Associated with Earthquakes Potentially Triggered by Fluid Disposal and Hydraulic Fracturing. Seismological Research Letters, 2015, 86, 1110-1118.	0.8	81
68	Long-period seismic amplification in the Kanto Basin from the ambient seismic field. Geophysical Research Letters, 2014, 41, 2319-2325.	1.5	48
69	Radiated Energy of Great Earthquakes from Teleseismic Empirical Greenâ€™s Function Deconvolution. Pure and Applied Geophysics, 2014, 171, 2841-2862.	0.8	20
70	Fullâ€3â€D tomography for crustal structure in Southern California based on the scatteringâ€integral and the adjointâ€wavefield methods. Journal of Geophysical Research: Solid Earth, 2014, 119, 6421-6451.	1.4	195
71	Seismic evidence for thermal runaway during intermediateâ€depth earthquake rupture. Geophysical Research Letters, 2013, 40, 6064-6068.	1.5	89
72	Groundâ€motion prediction from tremor. Geophysical Research Letters, 2013, 40, 6340-6345.	1.5	10

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73	Deep lowâ€frequency earthquakes in tectonic tremor along the Alaskaâ€Aleutian subduction zone. Journal of Geophysical Research: Solid Earth, 2013, 118, 1079-1090.	1.4	43
74	Aftershocks halted by static stress shadows. Nature Geoscience, 2012, 5, 410-413.	5.4	106
75	How many great earthquakes should we expect?. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, 651-652.	3.3	19
76	Ambientâ€field Green's functions from asynchronous seismic observations. Geophysical Research Letters, 2012, 39, .	1.5	26
77	Prieto receives 2010 Keiiti Aki Young Scientist Award. Eos, 2011, 92, 198-198.	0.1	0
78	Variability in earthquake stress drop and apparent stress. Geophysical Research Letters, 2011, 38, n/a-n/a.	1.5	149
79	Slow Earthquakes and Nonvolcanic Tremor. Annual Review of Earth and Planetary Sciences, 2011, 39, 271-296.	4.6	380
80	On amplitude information carried by the ambient seismic field. Comptes Rendus - Geoscience, 2011, 343, 600-614.	0.4	73
81	Radiated seismic energy from coda measurements and no scaling in apparent stress with seismic moment. Journal of Geophysical Research, 2010, 115, .	3.3	83
82	Deep Tremors and Slow Quakes. Science, 2009, 324, 1025-1026.	6.0	38
83	Deep lowâ€frequency earthquakes in tremor localize to the plate interface in multiple subduction zones. Geophysical Research Letters, 2009, 36, .	1.5	163
84	Dynamic highâ€speed rupture from the onset of the 2004 Parkfield, California, earthquake. Geophysical Research Letters, 2009, 36, .	1.5	9
85	Bridging the gap between seismically and geodetically detected slow earthquakes. Geophysical Research Letters, 2008, 35, .	1.5	99
86	Earthquake ground motion prediction using the ambient seismic field. Geophysical Research Letters, 2008, 35, .	1.5	67
87	An autocorrelation method to detect low frequency earthquakes within tremor. Geophysical Research Letters, 2008, 35, .	1.5	99
88	Mechanism of deep low frequency earthquakes: Further evidence that deep non-volcanic tremor is generated by shear slip on the plate interface. Geophysical Research Letters, 2007, 34, .	1.5	264
89	Seismic velocity reductions caused by the 2003 Tokachi-Oki earthquake. Journal of Geophysical Research, 2007, 112, .	3.3	76
90	Full waveform earthquake location: Application to seismic streaks on the Calaveras Fault, California. Journal of Geophysical Research, 2007, 112, .	3.3	13

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91	Complex evolution of transient slip derived from precise tremor locations in western Shikoku, Japan. Geochemistry, Geophysics, Geosystems, 2007, 8, .	1.0	178
92	Non-volcanic tremor and low-frequency earthquake swarms. Nature, 2007, 446, 305-307.	13.7	771
93	A brief review of techniques used to estimate radiated seismic energy. Geophysical Monograph Series, 2006, , 15-24.	0.1	5
94	Low-frequency earthquakes in Shikoku, Japan, and their relationship to episodic tremor and slip. Nature, 2006, 442, 188-191.	13.7	695
95	Measurements of spectral similarity for microearthquakes in western Nagano, Japan. Journal of Geophysical Research, 2006, 111, n/a-n/a.	3.3	31
96	High-resolution subduction zone seismicity and velocity structure beneath Ibaraki Prefecture, Japan. Journal of Geophysical Research, 2006, 111, n/a-n/a.	3.3	38
97	Depth constraints on nonlinear strong ground motion from the 2004 Parkfield earthquake. Geophysical Research Letters, 2005, 32, n/a-n/a.	1.5	93
98	A simple dynamic model for the 1995 Kobe, Japan earthquake. Geophysical Research Letters, 2004, 31, .	1.5	10
99	Nonlinear strong ground motion in the ML5.4 Chittenden earthquake: Evidence that preexisting damage increases susceptibility to further damage. Geophysical Research Letters, 2004, 31, .	1.5	47
100	Coseismic and postseismic velocity changes measured by repeating earthquakes. Journal of Geophysical Research, 2004, 109, .	3.3	173
101	Apparent break in earthquake scaling due to path and site effects on deep borehole recordings. Journal of Geophysical Research, 2003, 108, .	3.3	224
102	Waveform analysis of the 1999 Hector Mine foreshock sequence. Geophysical Research Letters, 2003, 30, .	1.5	11
103	A spatial random field model to characterize complexity in earthquake slip. Journal of Geophysical Research, 2002, 107, ESE 10-1-ESE 10-21.	3.3	446
104	High-resolution image of Calaveras Fault seismicity. Journal of Geophysical Research, 2002, 107, ESE 5-1-ESE 5-16.	3.3	172
105	Considering the third dimension in stress-triggering of aftershocks: 1993 Klamath Falls, Oregon, Earthquake Sequence. Geophysical Research Letters, 2001, 28, 2739-2742.	1.5	3
106	Does apparent stress vary with earthquake size?. Geophysical Research Letters, 2001, 28, 3349-3352.	1.5	396
107	Postseismic response of repeating aftershocks. Geophysical Research Letters, 1998, 25, 4549-4552.	1.5	159
108	Source array analysis of coda waves near the 1989 Loma Prieta, California, mainshock: Implications for the mechanism of coseismic velocity changes. Journal of Geophysical Research, 1997, 102, 24437-24458.	3.3	41

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109	Properties of the seismic nucleation phase. Tectonophysics, 1996, 261, 209-227.	0.9	134
110	Detailed observations of California foreshock sequences: Implications for the earthquake initiation process. Journal of Geophysical Research, 1996, 101, 22371-22392.	3.3	244
111	Stability of coda wave attenuation during the Loma Prieta, California, earthquake sequence. Journal of Geophysical Research, 1995, 100, 3977-3987.	3.3	46
112	Foreshock sequence of the 1992 Landers, California, earthquake and its implications for earthquake nucleation. Journal of Geophysical Research, 1995, 100, 9865-9880.	3.3	175
113	PhaseNet: A Deep-Neural-Network-Based Seismic Arrival Time Picking Method. Geophysical Journal International, 0, , .	1.0	260