Paul Segall

List of Publications by Year
in descending order

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133	14,019	15504 65	21540 114
papers	citations	h-index	g-index

146	146	146	6529
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	A new method for measuring deformation on volcanoes and other natural terrains using InSAR persistent scatterers. Geophysical Research Letters, 2004, 31, .	4.0	1,264
2	Persistent scatterer interferometric synthetic aperture radar for crustal deformation analysis, with application to VolcÃ¡n Alcedo, GalÃ¡pagos. Journal of Geophysical Research, 2007, 112, .	3.3	806
3	Earthquakes triggered by fluid extraction. Geology, 1989, 17, 942.	4.4	459
4	Post-earthquake ground movements correlated to pore-pressure transients. Nature, 2003, 424, 179-183.	27.8	456
5	Dilatancy, compaction, and slip instability of a fluid-infiltrated fault. Journal of Geophysical Research, 1995, 100, 22155-22171.	3.3	440
6	Formation and interpretation of dilatant echelon cracks. Bulletin of the Geological Society of America, 1982, 93, 1291.	3.3	392
7	Injectionâ€induced seismicity: Poroelastic and earthquake nucleation effects. Journal of Geophysical Research: Solid Earth, 2015, 120, 5082-5103.	3.4	359
8	Joint formation in granitic rock of the Sierra Nevada. Bulletin of the Geological Society of America, 1983, 94, 563.	3.3	341
9	A note on induced stress changes in hydrocarbon and geothermal reservoirs. Tectonophysics, 1998, 289, 117-128.	2.2	317
10	Detection of a locked zone at depth on the Parkfield, California, segment of the San Andreas Fault. Journal of Geophysical Research, 1987, 92, 7945-7962.	3.3	310
11	Widespread uplift and â€˜trapdoorâ€™ faulting on GalÃ¡pagos volcanoes observed with radar interferometry. Nature, 2000, 407, 993-996.	27.8	300
12	Dilatant strengthening as a mechanism for slow slip events. Journal of Geophysical Research, 2010, 115, .	3.3	292
13	Poroelastic stressing and induced seismicity near the Lacq gas field, southwestern France. Journal of Geophysical Research, 1994, 99, 15423.	3.3	242
14	Development of simple strike-slip fault zones, Mount Abbot quadrangle, Sierra Nevada, California. Bulletin of the Geological Society of America, 1988, 100, 1451-1465.	3.3	217
15	GPS APPLICATIONS FOR GEODYNAMICS AND EARTHQUAKE STUDIES. Annual Review of Earth and Planetary Sciences, 1997, 25, 301-336.	11.0	213
16	Nucleation of ductile shear zones on dilatant fractures. Geology, 1986, 14, 56.	4.4	210
17	Space time distribution of afterslip following the 2003 Tokachi-oki earthquake: Implications for variations in fault zone frictional properties. Geophysical Research Letters, 2004, 31, n/a-n/a.	4.0	196
18	Earthquakes triggered by silent slip events on KÄ«lauea volcano, Hawaii. Nature, 2006, 442, 71-74.	27.8	183

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19	Magma compressibility and the missing source for some dike intrusions. Geophysical Research Letters, 2008, 35, .	4.0	171
20	Induced stresses due to fluid extraction from axisymmetric reservoirs. Pure and Applied Geophysics, 1992, 139, 535-560.	1.9	151
21	Injectionâ€induced seismicity on basement faults including poroelastic stressing. Journal of Geophysical Research: Solid Earth, 2016, 121, 2708-2726.	3.4	145
22	Constraints on magma chamber geometry at Sierra Negra Volcano, GalÃ¡pagos Islands, based on InSAR observations. Journal of Volcanology and Geothermal Research, 2006, 150, 232-243.	2.1	139
23	Formation and growth of extensional fracture sets. Bulletin of the Geological Society of America, 1984, 95, 454.	3.3	137
24	Space-time correlation of slip and tremor during the 2009 Cascadia slow slip event. Geophysical Research Letters, 2011, 38, n/a-n/a.	4.0	137
25	Rapid deformation of Kilauea Volcano: Global Positioning System measurements between 1990 and 1996. Journal of Geophysical Research, 2000, 105, 18983-18998.	3.3	136
26	Sudden aseismic fault slip on the south flank of Kilauea volcano. Nature, 2002, 415, 1014-1018.	27.8	133
27	The mechanics of unrest at Long Valley caldera, California. 2. Constraining the nature of the source using geodetic and micro-gravity data. Journal of Volcanology and Geothermal Research, 2003, 127, 219-245.	2.1	129
28	Comparison of various inversion techniques as applied to the determination of a geophysical deformation model for the 1983 Borah Peak earthquake. Bulletin of the Seismological Society of America, 1992, 82, 1840-1866.	2.3	125
29	Fault geometry and slip distribution of the 1999 Chi-Chi, Taiwan Earthquake imaged from inversion of GPS data. Geophysical Research Letters, 2001, 28, 2285-2288.	4.0	122
30	A decadalâ€scale deformation transient prior to the 2011 M_w 9.0 Tohokuâ€oki earthquake. Geophysical Research Letters, 2014, 41, 4486-4494.	4.0	122
31	Rapid afterslip following the 1999 Chi-Chi, Taiwan Earthquake. Geophysical Research Letters, 2002, 29, 1-4-1-4.	4.0	121
32	Spatial and temporal evolution of stress and slip rate during the 2000 Tokai slow earthquake. Journal of Geophysical Research, 2006, 111, n/a-n/a.	3.3	119
33	Imaging of aseismic fault slip transients recorded by dense geodetic networks. Geophysical Journal International, 2003, 155, 778-788.	2.4	116
34	Magma reservoir failure and the onset of caldera collapse at KÄ«lauea Volcano in 2018. Science, 2019, 366, .	12.6	112
35	Testing time-predictable earthquake recurrence by direct measurement of strain accumulation and release. Nature, 2002, 419, 287-291.	27.8	108
36	Rapid Deformation of the South Flank of Kilauea Volcano, Hawaii. Science, 1995, 267, 1328-1332.	12.6	107

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37	Subsidence at The Geysers Geothermal Field, N. California from a comparison of GPS and leveling surveys. Geophysical Research Letters, 1997, 24, 1839-1842.	4.0	102
38	Magma Intrusion Beneath Long Valley Caldera Confirmed by Temporal Changes in Gravity. Science, 1999, 285, 2119-2122.	12.6	102
39	Volcano deformation and eruption forecasting. Geological Society Special Publication, 2013, 380, 85-106.	1.3	101
40	January 30, 1997 eruptive event on Kilauea Volcano, Hawaii, as monitored by continuous GPS. Geophysical Research Letters, 2000, 27, 2757-2760.	4.0	98
41	The 12 September 1999 Upper East Rift Zone dike intrusion at Kilauea Volcano, Hawaii. Journal of Geophysical Research, 2002, 107, ECV 3-1-ECV 3-13.	3.3	96
42	Bayesian inversion of data from effusive volcanic eruptions using physicsâ€based models: Application to Mount St. Helens 2004â€“2008. Journal of Geophysical Research: Solid Earth, 2013, 118, 2017-2037.	3.4	94
43	Stress Control of Deep Rift Intrusion at Mauna Loa Volcano, Hawaii. Science, 2007, 316, 1026-1030.	12.6	91
44	Physics-based models of ground deformation and extrusion rate at effusively erupting volcanoes. Journal of Geophysical Research, 2011, 116, .	3.3	90
45	Time-dependent triggered afterslip following the 1989 Loma Prieta earthquake. Journal of Geophysical Research, 2000, 105, 5615-5634.	3.3	89
46	Does shear heating of pore fluid contribute to earthquake nucleation?. Journal of Geophysical Research, 2006, 111, .	3.3	86
47	Inversion of GPS data for spatially variable slip-rate on the San Andreas Fault near Parkfield, CA. Geophysical Research Letters, 2001, 28, 359-362.	4.0	80
48	Timeâ€dependent modeling of slow slip events and associated seismicity and tremor at the Hikurangi subduction zone, New Zealand. Journal of Geophysical Research: Solid Earth, 2014, 119, 734-753.	3.4	79
49	Constraints on dike propagation from continuous GPS measurements. Journal of Geophysical Research, 2001, 106, 19301-19317.	3.3	78
50	The co-seismic slip distribution of the Landers earthquake. Bulletin of the Seismological Society of America, 1994, 84, 646-659.	2.3	78
51	Slowâ€slip evolves into megathrust earthquakes in 2D numerical simulations. Geophysical Research Letters, 2012, 39, .	4.0	77
52	A shallow-dipping dike fed the 1995 flank eruption at Fernandina Volcano, GalÃ¡pagos, observed by satellite radar interferometry. Geophysical Research Letters, 1999, 26, 1077-1080.	4.0	76
53	Slip in the 1868 Hayward earthquake from the analysis of historical triangulation data. Journal of Geophysical Research, 1996, 101, 16101-16118.	3.3	74
54	Viscoelastic earthquake cycle models with deep stress-driven creep along the San Andreas fault system. Journal of Geophysical Research, 2004, 109, .	3.3	74

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55	The mechanics of unrest at Long Valley caldera, California: 1. Modeling the geometry of the source using GPS, leveling and two-color EDM data. Journal of Volcanology and Geothermal Research, 2003, 127, 195-217.	2.1	73
56	Integrating Geologic and Geodetic Estimates of Slip Rate on the San Andreas Fault System. International Geology Review, 2002, 44, 62-82.	2.1	72
57	Seismic and aseismic fault slip before and during the 2011 off the Pacific coast of Tohoku Earthquake. Earth, Planets and Space, 2011, 63, 637-642.	2.5	72
58	Slip Deficit on the San Andreas Fault at Parkfield, California, as Revealed by Inversion of Geodetic Data. Science, 1986, 233, 1409-1413.	12.6	71
59	Imaging Magma Transport During the 1997 Seismic Swarm off the Izu Peninsula, Japan. Science, 1999, 286, 927-930.	12.6	71
60	Geodetic evidence for en echelon dike emplacement and concurrent slow slip during the June 2007 intrusion and eruption at KÄ«lauea volcano, Hawaii. Journal of Geophysical Research, 2010, 115, .	3.3	71
61	Repressurization following eruption from a magma chamber with a viscoelastic aureole. Journal of Geophysical Research: Solid Earth, 2016, 121, 8501-8522.	3.4	71
62	Spatiotemporal evolution of a transient slip event on the San Andreas fault near Parkfield, California. Journal of Geophysical Research, 2005, 110, .	3.3	70
63	A Unified Source Model for the 1906 San Francisco Earthquake. Bulletin of the Seismological Society of America, 2008, 98, 823-831.	2.3	70
64	Precursory Slow Slip and Foreshocks on Rough Faults. Journal of Geophysical Research: Solid Earth, 2021, 126, e2020JB020430.	3.4	70
65	Surface Displacements in the 1906 San Francisco and 1989 Loma Prieta Earthquakes. Science, 1990, 250, 1241-1244.	12.6	67
66	A transient subduction zone slip episode in southwest Japan observed by the nationwide GPS array. Journal of Geophysical Research, 2003, 108, .	3.3	66
67	Longâ€term acceleration of aseismic slip preceding the M_w 9 Tohokuâ€oki earthquake: Constraints from repeating earthquakes. Geophysical Research Letters, 2015, 42, 9717-9725.	4.0	65
68	Rapid Intraplate Strain Accumulation in the New Madrid Seismic Zone. Science, 1992, 257, 1666-1669.	12.6	63
69	Displacement calculations from geodetic data and the testing of geophysical deformation models. Journal of Geophysical Research, 1988, 93, 14954-14966.	3.3	61
70	Challenging the rateâ€state asperity model: Afterslip following the 2011 M9 Tohokuâ€oki, Japan, earthquake. Geophysical Research Letters, 2012, 39, .	4.0	61
71	Kilauea slow slip events: Identification, source inversions, and relation to seismicity. Journal of Geophysical Research, 2009, 114, .	3.3	60
72	Displacements and tilts from dipâ€slip faults and magma chambers beneath irregular surface topography. Geophysical Research Letters, 1988, 15, 601-604.	4.0	59

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73	Lower crustal structure in northern California: Implications from strain rate variations following the 1906 San Francisco earthquake. Journal of Geophysical Research, 2003, 108, ETG 5-1-ETG 5-17.	3.3	59
74	Interferogram formation in the presence of complex and large deformation. Geophysical Research Letters, 2007, 34, .	4.0	58
75	Imaging the rampâ€“dÃ©collement geometry of the Chelungpu fault using coseismic GPS displacements from the 1999 Chi-Chi, Taiwan earthquake. Tectonophysics, 2004, 378, 123-139.	2.2	52
76	Shear heating-induced thermal pressurization during earthquake nucleation. Journal of Geophysical Research, 2011, 116, .	3.3	52
77	The Role of Thermal Pressurization and Dilatancy in Controlling the Rate of Fault Slip. Journal of Applied Mechanics, Transactions ASME, 2012, 79, .	2.2	50
78	Network-based estimation of time-dependent noise in GPS position time series. Journal of Geodesy, 2015, 89, 591-606.	3.6	50
79	Temporal and spatial variations of post-seismic deformation following the 1999 Chi-Chi, Taiwan earthquake. Geophysical Journal International, 2007, 169, 367-379.	2.4	48
80	Time-dependence of the stress shadowing effect and its relation to the structure of the lower crust. Geology, 1999, 27, 119.	4.4	45
81	The Interpretation of Gravity Changes and Crustal Deformation in Active Volcanic Areas. Pure and Applied Geophysics, 2004, 161, 1453-1467.	1.9	45
82	Cyclic ground tilt associated with the 2004â€“2008 eruption of Mount St. Helens. Journal of Geophysical Research, 2010, 115, .	3.3	45
83	Late Cretaceous age of fractures in the Sierra Nevada batholith, California. Geology, 1990, 18, 1248.	4.4	43
84	The Community Code Verification Exercise for Simulating Sequences of Earthquakes and Aseismic Slip (SEAS). Seismological Research Letters, 2020, 91, 874-890.	1.9	43
85	Ground deformation near Gada â€˜Ale Volcano, Afar, observed by radar interferometry. Geophysical Research Letters, 2000, 27, 3093-3096.	4.0	42
86	A fault model for the 1989 Kilauea South Flank Earthquake from leveling and seismic data. Geophysical Research Letters, 1991, 18, 2217-2220.	4.0	41
87	Modeling broadscale deformation in northern California and Nevada from plate motions and elastic strain accumulation. Geophysical Research Letters, 2001, 28, 4315-4318.	4.0	40
88	A viscoelastic earthquake cycle model for Taiwan. Journal of Geophysical Research, 2005, 110, .	3.3	38
89	Spatiotemporal evolution of dike opening and dÃ©collement slip at KÄ«lauea Volcano, Hawai'i. Journal of Geophysical Research, 2011, 116, .	3.3	38
90	Seismicity on Basement Faults Induced by Simultaneous Fluid Injectionâ€“Extraction. Pure and Applied Geophysics, 2016, 173, 2621-2636.	1.9	37

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91	Magma chambers: what we can, and cannot, learn from volcano geodesy. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2019, 377, 20180158.	3.4	37
92	Timeâ€dependent dike propagation from joint inversion of seismicity and deformation data. Journal of Geophysical Research: Solid Earth, 2013, 118, 5785-5804.	3.4	34
93	Constitutive Law for Earthquake Production Based on Rateâ€andâ€State Friction: Dieterich 1994 Revisited. Journal of Geophysical Research: Solid Earth, 2018, 123, 4141-4156.	3.4	32
94	Crack Models of Repeating Earthquakes Predict Observed Momentâ€Recurrence Scaling. Journal of Geophysical Research: Solid Earth, 2019, 124, 476-503.	3.4	31
95	Mechanics of Inflationary Deformation During Caldera Collapse: Evidence From the 2018 KÄ«lauea Eruption. Geophysical Research Letters, 2019, 46, 11782-11789.	4.0	27
96	Quasi-static dislocations in three dimensional inhomogeneous media. Geophysical Research Letters, 1997, 24, 2347-2350.	4.0	26
97	A Network Inversion Filter combining GNSS and InSAR for tectonic slip modeling. Journal of Geophysical Research: Solid Earth, 2016, 121, 2069-2086.	3.4	25
98	Deformation rates in northern Cascadia consistent with slow updip propagation of deep interseismic creep. Geophysical Journal International, 2017, 211, 427-449.	2.4	24
99	Small interseismic asperities and widespread aseismic creep on the northern Japan subduction interface. Geophysical Research Letters, 2016, 43, 135-143.	4.0	23
100	Transient deformation following the 30 January 1997 dike intrusion at KÄ«lauea volcano, Hawaiâ€™i. Bulletin of Volcanology, 2007, 69, 353-363.	3.0	20
101	Network strain filter: A new tool for monitoring and detecting transient deformation signals in GPS arrays. Journal of Geophysical Research, 2010, 115, .	3.3	20
102	When is the strain in the meter the same as the strain in the rock?. Geophysical Research Letters, 2003, 30, .	4.0	18
103	Reconciling seismic and geodetic models of the 1989 Kilauea south flank earthquake. Geophysical Research Letters, 2002, 29, 19-1-19-4.	4.0	17
104	Nucleation and dynamic rupture on weakly stressed faults sustained by thermal pressurization. Journal of Geophysical Research: Solid Earth, 2015, 120, 7606-7640.	3.4	17
105	Coupling on the northern Cascadia subduction zone from geodetic measurements and physicsâ€based models. Journal of Geophysical Research: Solid Earth, 2016, 121, 8297-8314.	3.4	17
106	Caldera Collapse Geometry Revealed by Nearâ€Field GPS Displacements at KÄ«lauea Volcano in 2018. Geophysical Research Letters, 2020, 47, e2020GL088867.	4.0	17
107	Repeating caldera collapse events constrain fault friction at the kilometer scale. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	7.1	17
108	Fault Mechanics. Reviews of Geophysics, 1991, 29, 864-876.	23.0	15

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109	Postâ€2018 Caldera Collapse Reâ€Inflation Uniquely Constrains KÄ«lauea's Magmatic System. Journal of Geophysical Research: Solid Earth, 2021, 126, e2021JB021803.	3.4	13
110	Constraining the Magmatic System at Mount St. Helens (2004â€“2008) Using Bayesian Inversion With Physicsâ€Based Models Including Gas Escape and Crystallization. Journal of Geophysical Research: Solid Earth, 2017, 122, 7789-7812.	3.4	12
111	Physically Consistent Modeling of Dikeâ€Induced Deformation and Seismicity: Application to the 2014 BÃ¡rÃ°arbunga Dike, Iceland. Journal of Geophysical Research: Solid Earth, 2020, 125, e2019JB018141.	3.4	12
112	A Physical Model for Interseismic Erosion of Locked Fault Asperities. Journal of Geophysical Research: Solid Earth, 2017, 122, 8326-8346.	3.4	11
113	Reduction of Injection-Induced Pore-Pressure and Stress in Basement Rocks Due to Basal Sealing Layers. Pure and Applied Geophysics, 2017, 174, 2649-2661.	1.9	11
114	The Surface Deformation Signature of a Transcrustal, Crystal Mushâ€Dominant Magma System. Journal of Geophysical Research: Solid Earth, 2022, 127, .	3.4	11
115	Role of Fluid Injection on Earthquake Size in Dynamic Rupture Simulations on Rough Faults. Geophysical Research Letters, 2020, 47, e2020GL088377.	4.0	10
116	The 2010 slow slip event and secular motion at KÄ±Ì„lauea, Hawaiâ€ui, inferred from TerraSARâ€X InSAR data. Journal of Geophysical Research: Solid Earth, 2014, 119, 6667-6683.	3.4	9
117	Bounding the moment deficit rate on crustal faults using geodetic data: Methods. Journal of Geophysical Research: Solid Earth, 2017, 122, 6811-6835.	3.4	9
118	Magnitudes of Induced Earthquakes in Lowâ€Stress Environments. Bulletin of the Seismological Society of America, 2018, 108, 1087-1106.	2.3	9
119	On merging high- and low-resolution DEMs from TOPSAR and SRTM using a prediction-error filter. IEEE Transactions on Geoscience and Remote Sensing, 2005, 43, 1682-1690.	6.3	8
120	Understanding Earthquakes. Science, 2012, 336, 676-677.	12.6	7
121	Joint Inversions of Ground Deformation, Extrusion Flux, and Gas Emissions Using Physicsâ€Based Models for the Mount St. Helens 2004â€“2008 Eruption. Geochemistry, Geophysics, Geosystems, 2020, 21, e2020GC009343.	2.5	7
122	Constraints on Absolute Magma Chamber Volume From Geodetic Measurements of Trapdoor Faulting at Sierra Negra Volcano, Galapagos. Geophysical Research Letters, 2022, 49, .	4.0	6
123	Physicsâ€Based Model Reconciles Caldera Collapse Induced Static and Dynamic Ground Motion: Application to KÄ«lauea 2018. Geophysical Research Letters, 2022, 49, .	4.0	6
124	Comment on: â€œGeodetic evidence for seismic potential at Parkfield, Californiaâ€•by L.â€Y. Sung and D. D. Jackson. Geophysical Research Letters, 1989, 16, 101-104.	4.0	5
125	Bounding the Moment Deficit Rate on Crustal Faults Using Geodetic Data: Application to Southern California. Journal of Geophysical Research: Solid Earth, 2018, 123, 11,048.	3.4	5
126	Earthquakes: slow down for safety. Nature, 1996, 383, 21-22.	27.8	4

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127	Numerical Analysis of Timeâ€Dependent Conduit Magma Flow in Domeâ€Forming Eruptions With Application to Mount St. Helens 2004â€“2008. Journal of Geophysical Research: Solid Earth, 2019, 124, 11251-11273.	3.4	4
128	Logarithmic Growth of Dikes From a Depressurizing Magma Chamber. Geophysical Research Letters, 2020, 47, e2019GL086230.	4.0	4
129	New insights into old earthquakes. Nature, 1997, 388, 122-123.	27.8	3
130	Stressâ€Driven Failure of Cylindrical Volcanic Conduits. Journal of Geophysical Research: Solid Earth, 2021, 126, e2021JB022278.	3.4	2
131	How Steady is Interseismic Crustal Deformation in Northeast Japan? Evidence From an Integrated Analysis of Centennial Geodetic Data. Journal of Geophysical Research: Solid Earth, 2022, 127, .	3.4	2
132	Look up for magma insights. Nature Geoscience, 2014, 7, 168-169.	12.9	1
133	On the Integrated Surface Uplift for Dipâ€Slip Faults. Bulletin of the Seismological Society of America, 2019, 109, 2738-2740.	2.3	1