

Paul Segall

List of Publications by Year in descending order

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papers

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6529
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#	ARTICLE	IF	CITATIONS
1	How Steady is Interseismic Crustal Deformation in Northeast Japan? Evidence From an Integrated Analysis of Centennial Geodetic Data. <i>Journal of Geophysical Research: Solid Earth</i> , 2022, 127, .	3.4	2
2	Constraints on Absolute Magma Chamber Volume From Geodetic Measurements of Trapdoor Faulting at Sierra Negra Volcano, Galapagos. <i>Geophysical Research Letters</i> , 2022, 49, .	4.0	6
3	Physics-Based Model Reconciles Caldera Collapse Induced Static and Dynamic Ground Motion: Application to K�lauea 2018. <i>Geophysical Research Letters</i> , 2022, 49, .	4.0	6
4	The Surface Deformation Signature of a Transcrustal, Crystal Mushi-Dominant Magma System. <i>Journal of Geophysical Research: Solid Earth</i> , 2022, 127, .	3.4	11
5	Precursory Slow Slip and Foreshocks on Rough Faults. <i>Journal of Geophysical Research: Solid Earth</i> , 2021, 126, e2020JB020430.	3.4	70
6	Post-2018 Caldera Collapse Re-Inflation Uniquely Constrains K�lauea's Magmatic System. <i>Journal of Geophysical Research: Solid Earth</i> , 2021, 126, e2021JB021803.	3.4	13
7	Repeating caldera collapse events constrain fault friction at the kilometer scale. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2021, 118, .	7.1	17
8	Stress-Driven Failure of Cylindrical Volcanic Conduits. <i>Journal of Geophysical Research: Solid Earth</i> , 2021, 126, e2021JB022278.	3.4	2
9	Caldera Collapse Geometry Revealed by Near-Field GPS Displacements at K�lauea Volcano in 2018. <i>Geophysical Research Letters</i> , 2020, 47, e2020GL088867.	4.0	17
10	Joint Inversions of Ground Deformation, Extrusion Flux, and Gas Emissions Using Physics-Based Models for the Mount St. Helens 2004-2008 Eruption. <i>Geochemistry, Geophysics, Geosystems</i> , 2020, 21, e2020GC009343.	2.5	7
11	The Community Code Verification Exercise for Simulating Sequences of Earthquakes and Aseismic Slip (SEAS). <i>Seismological Research Letters</i> , 2020, 91, 874-890.	1.9	43
12	Role of Fluid Injection on Earthquake Size in Dynamic Rupture Simulations on Rough Faults. <i>Geophysical Research Letters</i> , 2020, 47, e2020GL088377.	4.0	10
13	Logarithmic Growth of Dikes From a Depressurizing Magma Chamber. <i>Geophysical Research Letters</i> , 2020, 47, e2019GL086230.	4.0	4
14	Physically Consistent Modeling of Dike-Induced Deformation and Seismicity: Application to the 2014 B�r�arbunga Dike, Iceland. <i>Journal of Geophysical Research: Solid Earth</i> , 2020, 125, e2019JB018141.	3.4	12
15	Numerical Analysis of Time-Dependent Conduit Magma Flow in Dome-Forming Eruptions With Application to Mount St. Helens 2004-2008. <i>Journal of Geophysical Research: Solid Earth</i> , 2019, 124, 11251-11273.	3.4	4
16	Mechanics of Inflationary Deformation During Caldera Collapse: Evidence From the 2018 K�lauea Eruption. <i>Geophysical Research Letters</i> , 2019, 46, 11782-11789.	4.0	27
17	Magma chambers: what we can, and cannot, learn from volcano geodesy. <i>Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences</i> , 2019, 377, 20180158.	3.4	37
18	Crack Models of Repeating Earthquakes Predict Observed Moment-Recurrence Scaling. <i>Journal of Geophysical Research: Solid Earth</i> , 2019, 124, 476-503.	3.4	31

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19	On the Integrated Surface Uplift for Dip-Slip Faults. <i>Bulletin of the Seismological Society of America</i> , 2019, 109, 2738-2740.	2.3	1
20	Magma reservoir failure and the onset of caldera collapse at K�lauea Volcano in 2018. <i>Science</i> , 2019, 366, .	12.6	112
21	Magnitudes of Induced Earthquakes in Low-Stress Environments. <i>Bulletin of the Seismological Society of America</i> , 2018, 108, 1087-1106.	2.3	9
22	Bounding the Moment Deficit Rate on Crustal Faults Using Geodetic Data: Application to Southern California. <i>Journal of Geophysical Research: Solid Earth</i> , 2018, 123, 11,048.	3.4	5
23	Constitutive Law for Earthquake Production Based on Rate- and State Friction: Dieterich 1994 Revisited. <i>Journal of Geophysical Research: Solid Earth</i> , 2018, 123, 4141-4156.	3.4	32
24	Constraining the Magmatic System at Mount St. Helens (2004-2008) Using Bayesian Inversion With Physics-Based Models Including Gas Escape and Crystallization. <i>Journal of Geophysical Research: Solid Earth</i> , 2017, 122, 7789-7812.	3.4	12
25	A Physical Model for Interseismic Erosion of Locked Fault Asperities. <i>Journal of Geophysical Research: Solid Earth</i> , 2017, 122, 8326-8346.	3.4	11
26	Bounding the moment deficit rate on crustal faults using geodetic data: Methods. <i>Journal of Geophysical Research: Solid Earth</i> , 2017, 122, 6811-6835.	3.4	9
27	Deformation rates in northern Cascadia consistent with slow updip propagation of deep interseismic creep. <i>Geophysical Journal International</i> , 2017, 211, 427-449.	2.4	24
28	Reduction of Injection-Induced Pore-Pressure and Stress in Basement Rocks Due to Basal Sealing Layers. <i>Pure and Applied Geophysics</i> , 2017, 174, 2649-2661.	1.9	11
29	Repressurization following eruption from a magma chamber with a viscoelastic aureole. <i>Journal of Geophysical Research: Solid Earth</i> , 2016, 121, 8501-8522.	3.4	71
30	Coupling on the northern Cascadia subduction zone from geodetic measurements and physics-based models. <i>Journal of Geophysical Research: Solid Earth</i> , 2016, 121, 8297-8314.	3.4	17
31	Small interseismic asperities and widespread aseismic creep on the northern Japan subduction interface. <i>Geophysical Research Letters</i> , 2016, 43, 135-143.	4.0	23
32	Injection-induced seismicity on basement faults including poroelastic stressing. <i>Journal of Geophysical Research: Solid Earth</i> , 2016, 121, 2708-2726.	3.4	145
33	Seismicity on Basement Faults Induced by Simultaneous Fluid Injection-Extraction. <i>Pure and Applied Geophysics</i> , 2016, 173, 2621-2636.	1.9	37
34	A Network Inversion Filter combining GNSS and InSAR for tectonic slip modeling. <i>Journal of Geophysical Research: Solid Earth</i> , 2016, 121, 2069-2086.	3.4	25
35	Nucleation and dynamic rupture on weakly stressed faults sustained by thermal pressurization. <i>Journal of Geophysical Research: Solid Earth</i> , 2015, 120, 7606-7640.	3.4	17
36	Injection-induced seismicity: Poroelastic and earthquake nucleation effects. <i>Journal of Geophysical Research: Solid Earth</i> , 2015, 120, 5082-5103.	3.4	359

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37	Long-term acceleration of aseismic slip preceding the M_w 9 Tohoku earthquake: Constraints from repeating earthquakes. <i>Geophysical Research Letters</i> , 2015, 42, 9717-9725.	4.0	65
38	Network-based estimation of time-dependent noise in GPS position time series. <i>Journal of Geodesy</i> , 2015, 89, 591-606.	3.6	50
39	The 2010 slow slip event and secular motion at Kilauea, Hawaii, inferred from TerraSAR-X InSAR data. <i>Journal of Geophysical Research: Solid Earth</i> , 2014, 119, 6667-6683.	3.4	9
40	Look up for magma insights. <i>Nature Geoscience</i> , 2014, 7, 168-169.	12.9	1
41	Time-dependent modeling of slow slip events and associated seismicity and tremor at the Hikurangi subduction zone, New Zealand. <i>Journal of Geophysical Research: Solid Earth</i> , 2014, 119, 734-753.	3.4	79
42	A decadal-scale deformation transient prior to the 2011 M_w 9.0 Tohoku earthquake. <i>Geophysical Research Letters</i> , 2014, 41, 4486-4494.	4.0	122
43	Volcano deformation and eruption forecasting. <i>Geological Society Special Publication</i> , 2013, 380, 85-106.	1.3	101
44	Bayesian inversion of data from effusive volcanic eruptions using physics-based models: Application to Mount St. Helens 2004-2008. <i>Journal of Geophysical Research: Solid Earth</i> , 2013, 118, 2017-2037.	3.4	94
45	Time-dependent dike propagation from joint inversion of seismicity and deformation data. <i>Journal of Geophysical Research: Solid Earth</i> , 2013, 118, 5785-5804.	3.4	34
46	The Role of Thermal Pressurization and Dilatancy in Controlling the Rate of Fault Slip. <i>Journal of Applied Mechanics, Transactions ASME</i> , 2012, 79, .	2.2	50
47	Understanding Earthquakes. <i>Science</i> , 2012, 336, 676-677.	12.6	7
48	Slow slip evolves into megathrust earthquakes in 2D numerical simulations. <i>Geophysical Research Letters</i> , 2012, 39, .	4.0	77
49	Challenging the rate-state asperity model: Afterslip following the 2011 M9 Tohoku earthquake, Japan. <i>Geophysical Research Letters</i> , 2012, 39, .	4.0	61
50	Spatiotemporal evolution of dike opening and décollement slip at Kilauea Volcano, Hawaii. <i>Journal of Geophysical Research</i> , 2011, 116, .	3.3	38
51	Physics-based models of ground deformation and extrusion rate at effusively erupting volcanoes. <i>Journal of Geophysical Research</i> , 2011, 116, .	3.3	90
52	Shear heating-induced thermal pressurization during earthquake nucleation. <i>Journal of Geophysical Research</i> , 2011, 116, .	3.3	52
53	Space-time correlation of slip and tremor during the 2009 Cascadia slow slip event. <i>Geophysical Research Letters</i> , 2011, 38, n/a-n/a.	4.0	137
54	Seismic and aseismic fault slip before and during the 2011 off the Pacific coast of Tohoku Earthquake. <i>Earth, Planets and Space</i> , 2011, 63, 637-642.	2.5	72

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55	Geodetic evidence for an echelon dike emplacement and concurrent slow slip during the June 2007 intrusion and eruption at K�lauea volcano, Hawaii. <i>Journal of Geophysical Research</i> , 2010, 115, .	3.3	71
56	Cyclic ground tilt associated with the 2004–2008 eruption of Mount St. Helens. <i>Journal of Geophysical Research</i> , 2010, 115, .	3.3	45
57	Network strain filter: A new tool for monitoring and detecting transient deformation signals in GPS arrays. <i>Journal of Geophysical Research</i> , 2010, 115, .	3.3	20
58	Dilatant strengthening as a mechanism for slow slip events. <i>Journal of Geophysical Research</i> , 2010, 115, .	3.3	292
59	Kilauea slow slip events: Identification, source inversions, and relation to seismicity. <i>Journal of Geophysical Research</i> , 2009, 114, .	3.3	60
60	Magma compressibility and the missing source for some dike intrusions. <i>Geophysical Research Letters</i> , 2008, 35, .	4.0	171
61	A Unified Source Model for the 1906 San Francisco Earthquake. <i>Bulletin of the Seismological Society of America</i> , 2008, 98, 823-831.	2.3	70
62	Stress Control of Deep Rift Intrusion at Mauna Loa Volcano, Hawaii. <i>Science</i> , 2007, 316, 1026-1030.	12.6	91
63	Persistent scatterer interferometric synthetic aperture radar for crustal deformation analysis, with application to Volc�n Alcedo, Gal�pagos. <i>Journal of Geophysical Research</i> , 2007, 112, .	3.3	806
64	Interferogram formation in the presence of complex and large deformation. <i>Geophysical Research Letters</i> , 2007, 34, .	4.0	58
65	Temporal and spatial variations of post-seismic deformation following the 1999 Chi-Chi, Taiwan earthquake. <i>Geophysical Journal International</i> , 2007, 169, 367-379.	2.4	48
66	Transient deformation following the 30 January 1997 dike intrusion at K�lauea volcano, Hawaii. <i>Bulletin of Volcanology</i> , 2007, 69, 353-363.	3.0	20
67	Spatial and temporal evolution of stress and slip rate during the 2000 Tokai slow earthquake. <i>Journal of Geophysical Research</i> , 2006, 111, n/a-n/a.	3.3	119
68	Does shear heating of pore fluid contribute to earthquake nucleation?. <i>Journal of Geophysical Research</i> , 2006, 111, .	3.3	86
69	Earthquakes triggered by silent slip events on K�lauea volcano, Hawaii. <i>Nature</i> , 2006, 442, 71-74.	27.8	183
70	Constraints on magma chamber geometry at Sierra Negra Volcano, Gal�pagos Islands, based on InSAR observations. <i>Journal of Volcanology and Geothermal Research</i> , 2006, 150, 232-243.	2.1	139
71	On merging high- and low-resolution DEMs from TOPSAR and SRTM using a prediction-error filter. <i>IEEE Transactions on Geoscience and Remote Sensing</i> , 2005, 43, 1682-1690.	6.3	8
72	A viscoelastic earthquake cycle model for Taiwan. <i>Journal of Geophysical Research</i> , 2005, 110, .	3.3	38

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73	Spatiotemporal evolution of a transient slip event on the San Andreas fault near Parkfield, California. <i>Journal of Geophysical Research</i> , 2005, 110, .	3.3	70
74	The Interpretation of Gravity Changes and Crustal Deformation in Active Volcanic Areas. <i>Pure and Applied Geophysics</i> , 2004, 161, 1453-1467.	1.9	45
75	A new method for measuring deformation on volcanoes and other natural terrains using InSAR persistent scatterers. <i>Geophysical Research Letters</i> , 2004, 31, .	4.0	1,264
76	Space time distribution of afterslip following the 2003 Tokachi-oki earthquake: Implications for variations in fault zone frictional properties. <i>Geophysical Research Letters</i> , 2004, 31, n/a-n/a.	4.0	196
77	Viscoelastic earthquake cycle models with deep stress-driven creep along the San Andreas fault system. <i>Journal of Geophysical Research</i> , 2004, 109, .	3.3	74
78	Imaging the ramp and collement geometry of the Chelungpu fault using coseismic GPS displacements from the 1999 Chi-Chi, Taiwan earthquake. <i>Tectonophysics</i> , 2004, 378, 123-139.	2.2	52
79	The mechanics of unrest at Long Valley caldera, California: 1. Modeling the geometry of the source using GPS, leveling and two-color EDM data. <i>Journal of Volcanology and Geothermal Research</i> , 2003, 127, 195-217.	2.1	73
80	The mechanics of unrest at Long Valley caldera, California. 2. Constraining the nature of the source using geodetic and micro-gravity data. <i>Journal of Volcanology and Geothermal Research</i> , 2003, 127, 219-245.	2.1	129
81	Imaging of aseismic fault slip transients recorded by dense geodetic networks. <i>Geophysical Journal International</i> , 2003, 155, 778-788.	2.4	116
82	Post-earthquake ground movements correlated to pore-pressure transients. <i>Nature</i> , 2003, 424, 179-183.	27.8	456
83	Lower crustal structure in northern California: Implications from strain rate variations following the 1906 San Francisco earthquake. <i>Journal of Geophysical Research</i> , 2003, 108, ETC 5-1-ETC 5-17.	3.3	59
84	A transient subduction zone slip episode in southwest Japan observed by the nationwide GPS array. <i>Journal of Geophysical Research</i> , 2003, 108, .	3.3	66
85	When is the strain in the meter the same as the strain in the rock?. <i>Geophysical Research Letters</i> , 2003, 30, .	4.0	18
86	Integrating Geologic and Geodetic Estimates of Slip Rate on the San Andreas Fault System. <i>International Geology Review</i> , 2002, 44, 62-82.	2.1	72
87	The 12 September 1999 Upper East Rift Zone dike intrusion at Kilauea Volcano, Hawaii. <i>Journal of Geophysical Research</i> , 2002, 107, ECV 3-1-ECV 3-13.	3.3	96
88	Rapid afterslip following the 1999 Chi-Chi, Taiwan Earthquake. <i>Geophysical Research Letters</i> , 2002, 29, 1-4-1-4.	4.0	121
89	Reconciling seismic and geodetic models of the 1989 Kilauea south flank earthquake. <i>Geophysical Research Letters</i> , 2002, 29, 19-1-19-4.	4.0	17
90	Testing time-predictable earthquake recurrence by direct measurement of strain accumulation and release. <i>Nature</i> , 2002, 419, 287-291.	27.8	108

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91	Sudden aseismic fault slip on the south flank of Kilauea volcano. <i>Nature</i> , 2002, 415, 1014-1018.	27.8	133
92	Inversion of GPS data for spatially variable slip-rate on the San Andreas Fault near Parkfield, CA. <i>Geophysical Research Letters</i> , 2001, 28, 359-362.	4.0	80
93	Constraints on dike propagation from continuous GPS measurements. <i>Journal of Geophysical Research</i> , 2001, 106, 19301-19317.	3.3	78
94	Fault geometry and slip distribution of the 1999 Chi-Chi, Taiwan Earthquake imaged from inversion of GPS data. <i>Geophysical Research Letters</i> , 2001, 28, 2285-2288.	4.0	122
95	Modeling broadscale deformation in northern California and Nevada from plate motions and elastic strain accumulation. <i>Geophysical Research Letters</i> , 2001, 28, 4315-4318.	4.0	40
96	Widespread uplift and "trapdoor" faulting on Galápagos volcanoes observed with radar interferometry. <i>Nature</i> , 2000, 407, 993-996.	27.8	300
97	Rapid deformation of Kilauea Volcano: Global Positioning System measurements between 1990 and 1996. <i>Journal of Geophysical Research</i> , 2000, 105, 18983-18998.	3.3	136
98	January 30, 1997 eruptive event on Kilauea Volcano, Hawaii, as monitored by continuous GPS. <i>Geophysical Research Letters</i> , 2000, 27, 2757-2760.	4.0	98
99	Time-dependent triggered afterslip following the 1989 Loma Prieta earthquake. <i>Journal of Geophysical Research</i> , 2000, 105, 5615-5634.	3.3	89
100	Ground deformation near Gada Ale Volcano, Afar, observed by radar interferometry. <i>Geophysical Research Letters</i> , 2000, 27, 3093-3096.	4.0	42
101	Magma Intrusion Beneath Long Valley Caldera Confirmed by Temporal Changes in Gravity. <i>Science</i> , 1999, 285, 2119-2122.	12.6	102
102	Imaging Magma Transport During the 1997 Seismic Swarm off the Izu Peninsula, Japan. <i>Science</i> , 1999, 286, 927-930.	12.6	71
103	A shallow-dipping dike fed the 1995 flank eruption at Fernandina Volcano, Galápagos, observed by satellite radar interferometry. <i>Geophysical Research Letters</i> , 1999, 26, 1077-1080.	4.0	76
104	Time-dependence of the stress shadowing effect and its relation to the structure of the lower crust. <i>Geology</i> , 1999, 27, 119.	4.4	45
105	A note on induced stress changes in hydrocarbon and geothermal reservoirs. <i>Tectonophysics</i> , 1998, 289, 117-128.	2.2	317
106	GPS APPLICATIONS FOR GEODYNAMICS AND EARTHQUAKE STUDIES. <i>Annual Review of Earth and Planetary Sciences</i> , 1997, 25, 301-336.	11.0	213
107	Subsidence at The Geysers Geothermal Field, N. California from a comparison of GPS and leveling surveys. <i>Geophysical Research Letters</i> , 1997, 24, 1839-1842.	4.0	102
108	Quasi-static dislocations in three dimensional inhomogeneous media. <i>Geophysical Research Letters</i> , 1997, 24, 2347-2350.	4.0	26

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109	New insights into old earthquakes. <i>Nature</i> , 1997, 388, 122-123.	27.8	3
110	Slip in the 1868 Hayward earthquake from the analysis of historical triangulation data. <i>Journal of Geophysical Research</i> , 1996, 101, 16101-16118.	3.3	74
111	Earthquakes: slow down for safety. <i>Nature</i> , 1996, 383, 21-22.	27.8	4
112	Rapid Deformation of the South Flank of Kilauea Volcano, Hawaii. <i>Science</i> , 1995, 267, 1328-1332.	12.6	107
113	Dilatancy, compaction, and slip instability of a fluid-infiltrated fault. <i>Journal of Geophysical Research</i> , 1995, 100, 22155-22171.	3.3	440
114	Poroelastic stressing and induced seismicity near the Lacq gas field, southwestern France. <i>Journal of Geophysical Research</i> , 1994, 99, 15423.	3.3	242
115	The co-seismic slip distribution of the Landers earthquake. <i>Bulletin of the Seismological Society of America</i> , 1994, 84, 646-659.	2.3	78
116	Rapid Intraplate Strain Accumulation in the New Madrid Seismic Zone. <i>Science</i> , 1992, 257, 1666-1669.	12.6	63
117	Induced stresses due to fluid extraction from axisymmetric reservoirs. <i>Pure and Applied Geophysics</i> , 1992, 139, 535-560.	1.9	151
118	Comparison of various inversion techniques as applied to the determination of a geophysical deformation model for the 1983 Borah Peak earthquake. <i>Bulletin of the Seismological Society of America</i> , 1992, 82, 1840-1866.	2.3	125
119	A fault model for the 1989 Kilauea South Flank Earthquake from leveling and seismic data. <i>Geophysical Research Letters</i> , 1991, 18, 2217-2220.	4.0	41
120	Fault Mechanics. <i>Reviews of Geophysics</i> , 1991, 29, 864-876.	23.0	15
121	Late Cretaceous age of fractures in the Sierra Nevada batholith, California. <i>Geology</i> , 1990, 18, 1248.	4.4	43
122	Surface Displacements in the 1906 San Francisco and 1989 Loma Prieta Earthquakes. <i>Science</i> , 1990, 250, 1241-1244.	12.6	67
123	Earthquakes triggered by fluid extraction. <i>Geology</i> , 1989, 17, 942.	4.4	459
124	Comment on: "Geodetic evidence for seismic potential at Parkfield, California" by L. Sung and D. D. Jackson. <i>Geophysical Research Letters</i> , 1989, 16, 101-104.	4.0	5
125	Displacements and tilts from dip-slip faults and magma chambers beneath irregular surface topography. <i>Geophysical Research Letters</i> , 1988, 15, 601-604.	4.0	59
126	Displacement calculations from geodetic data and the testing of geophysical deformation models. <i>Journal of Geophysical Research</i> , 1988, 93, 14954-14966.	3.3	61

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127	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
128	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
129	Nucleation of ductile shear zones on dilatant fractures. Geology, 1986, 14, 56.	4.4	210
130	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
131	Formation and growth of extensional fracture sets. Bulletin of the Geological Society of America, 1984, 95, 454.	3.3	137
132	Joint formation in granitic rock of the Sierra Nevada. Bulletin of the Geological Society of America, 1983, 94, 563.	3.3	341
133	Formation and interpretation of dilatant echelon cracks. Bulletin of the Geological Society of America, 1982, 93, 1291.	3.3	392