

# Stephen S Gao

## List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

109  
papers

2,710  
citations

31  
h-index

48  
g-index

135  
ext. papers

3,090  
ext. citations

4.7  
avg, IF

5.27  
L-index

#	Paper	IF	Citations
109	Continental Break-Up Under a Convergent Setting: Insights From P Wave Radial Anisotropy Tomography of the Woodlark Rift in Papua New Guinea. <i>Geophysical Research Letters</i> , <b>2022</b> , 49,	4.9	1
108	Seismic Anisotropy and Mantle Deformation Beneath the Central Sunda Plate. <i>Journal of Geophysical Research: Solid Earth</i> , <b>2021</b> , 126, e2020JB021259	3.6	2
107	Spatial Variations of Upper Crustal Anisotropy Along the San Jacinto Fault Zone in Southern California: Constraints From Shear Wave Splitting Analysis. <i>Journal of Geophysical Research: Solid Earth</i> , <b>2021</b> , 126, e2020JB020876	3.6	3
106	Crustal structure beneath the Ethiopian Plateau and adjacent areas from receiver functions: Implications for partial melting and magmatic underplating. <i>Tectonophysics</i> , <b>2021</b> , 809, 228857	3.1	2
105	Teleseismic P-Wave Attenuation Beneath the Southeastern United States. <i>Geochemistry, Geophysics, Geosystems</i> , <b>2021</b> , 22, e2021GC009715	3.6	1
104	A systematic investigation of piercing-point-dependent seismic azimuthal anisotropy. <i>Geophysical Journal International</i> , <b>2021</b> , 227, 1496-1511	2.6	2
103	Receiver function investigation of crustal structure in the Malawi and Luangwa rift zones and adjacent areas. <i>Gondwana Research</i> , <b>2021</b> , 89, 168-176	5.1	2
102	Crustal P-wave velocity structure and earthquake distribution in the Jiaodong Peninsula, China. <i>Tectonophysics</i> , <b>2021</b> , 814, 228973	3.1	0
101	Seismic Anisotropy and Mantle Flow Constrained by Shear Wave Splitting in Central Myanmar. <i>Journal of Geophysical Research: Solid Earth</i> , <b>2021</b> , 126, e2021JB022144	3.6	1
100	Mantle Flow in the Vicinity of the Eastern Edge of the Pacific-Yakutat Slab: Constraints From Shear Wave Splitting Analyses. <i>Journal of Geophysical Research: Solid Earth</i> , <b>2021</b> , 126, e2021JB022354	3.6	2
99	Layered mantle heterogeneities associated with post-subducted slab segments. <i>Earth and Planetary Science Letters</i> , <b>2021</b> , 571, 117115	5.3	1
98	Crustal azimuthal anisotropy and deformation beneath the northeastern Tibetan Plateau and adjacent areas: Insights from receiver function analysis. <i>Tectonophysics</i> , <b>2021</b> , 816, 229014	3.1	2
97	Crustal modifications beneath the central Sunda plate associated with the Indo-Australian subduction and the evolution of the South China Sea. <i>Physics of the Earth and Planetary Interiors</i> , <b>2020</b> , 306, 106539	2.3	3
96	Mantle Structure and Flow Beneath an Early-Stage Continental Rift: Constraints From P Wave Anisotropic Tomography. <i>Tectonics</i> , <b>2020</b> , 39, e2019TC005590	4.3	4
95	Seismic Anisotropy and Mantle Flow in the Sumatra Subduction Zone Constrained by Shear Wave Splitting and Receiver Function Analyses. <i>Geochemistry, Geophysics, Geosystems</i> , <b>2020</b> , 21, e2019GC008736	3.6	8
94	Upper mantle and mantle transition zone thermal and water content anomalies beneath NE Asia: Constraints from receiver function imaging of the 410 and 660 km discontinuities. <i>Earth and Planetary Science Letters</i> , <b>2020</b> , 532, 116040	5.3	7
93	Foundered lithospheric segments dropped into the mantle transition zone beneath southern California, USA. <i>Geology</i> , <b>2020</b> , 48, 200-204	5	5

92	Receiver function imaging of the 410 and 660km discontinuities beneath the Australian continent. <i>Geophysical Journal International</i> , <b>2020</b> , 220, 1481-1490	2.6	1
91	Prestack simultaneous inversion for delineation of the Lower Wilcox erosional remnant sandstone beneath the Texas Gulf Coastal Plain: A case study. <i>Interpretation</i> , <b>2020</b> , 8, T991-T1005	1.4	1
90	Topography of the 410 and 660km Discontinuities Beneath the Cenozoic Okavango Rift Zone and Adjacent Precambrian Provinces. <i>Journal of Geophysical Research: Solid Earth</i> , <b>2020</b> , 125, e2019JB019290	3.6	0
89	Slab Dehydration and Mantle Upwelling in the Vicinity of the Sumatra Subduction Zone: Evidence from Receiver Function Imaging of Mantle Transition Zone Discontinuities. <i>Journal of Geophysical Research: Solid Earth</i> , <b>2020</b> , 125, e2020JB019381	3.6	7
88	Crustal Azimuthal Anisotropy Beneath the Central North China Craton Revealed by Receiver Functions. <i>Geochemistry, Geophysics, Geosystems</i> , <b>2019</b> , 20, 2235	3.6	4
87	Tectonics of the incipient continental rifting. <i>Acta Geologica Sinica</i> , <b>2019</b> , 93, 99-100	0.7	
86	Lithospheric Structure and Evolution of Southern Africa: Constraints From Joint Inversion of Rayleigh Wave Dispersion and Receiver Functions. <i>Geochemistry, Geophysics, Geosystems</i> , <b>2019</b> , 20, 3311-3327	3.6	3
85	Toroidal Mantle Flow Induced by Slab Subduction and Rollback Beneath the Eastern Himalayan Syntaxis and Adjacent Areas. <i>Geophysical Research Letters</i> , <b>2019</b> , 46, 11080-11090	4.9	10
84	Crustal structure beneath the Malawi and Luangwa Rift Zones and adjacent areas from ambient noise tomography. <i>Gondwana Research</i> , <b>2019</b> , 67, 187-198	5.1	11
83	Integrated geologic, geophysical, and petrophysical data to construct full field geologic model of Cambrian-Ordovician and Upper Cretaceous reservoir formations, Central Western Sirte Basin, Libya. <i>Interpretation</i> , <b>2019</b> , 7, T21-T37	1.4	2
82	Characteristics of the Mantle Flow System Beneath the Indochina Peninsula Revealed by Teleseismic Shear Wave Splitting Analysis. <i>Geochemistry, Geophysics, Geosystems</i> , <b>2018</b> , 19, 1519-1532	3.6	11
81	A Database of Shear-Wave Splitting Measurements for the Arabian Plate. <i>Seismological Research Letters</i> , <b>2018</b> , 89, 2294-2298	3	3
80	Receiver Function Investigations of Seismic Anisotropy Layering Beneath Southern California. <i>Journal of Geophysical Research: Solid Earth</i> , <b>2018</b> , 123, 10,672	3.6	2
79	Azimuthal anisotropy and mantle flow underneath the southeastern Tibetan Plateau and northern Indochina Peninsula revealed by shear wave splitting analyses. <i>Tectonophysics</i> , <b>2018</b> , 747-748, 68-78	3.1	16
78	Absence of thermal influence from the African Superswell and cratonic keels on the mantle transition zone beneath southern Africa: Evidence from receiver function imaging. <i>Earth and Planetary Science Letters</i> , <b>2018</b> , 503, 108-117	5.3	10
77	Crustal Azimuthal Anisotropy Beneath the Southeastern Tibetan Plateau and its Geodynamic Implications. <i>Journal of Geophysical Research: Solid Earth</i> , <b>2018</b> , 123, 9733-9749	3.6	19
76	Lithospheric layering beneath the contiguous United States constrained by S-to-P receiver functions. <i>Earth and Planetary Science Letters</i> , <b>2018</b> , 495, 79-86	5.3	26
75	Mantle transition zone discontinuities beneath the Indochina Peninsula: Implications for slab subduction and mantle upwelling. <i>Geophysical Research Letters</i> , <b>2017</b> , 44, 7159-7167	4.9	21

74	Seismic azimuthal anisotropy beneath the eastern United States and its geodynamic implications. <i>Geophysical Research Letters</i> , <b>2017</b> , 44, 2670-2678	4.9	35
73	Evolution of the broadly rifted zone in southern Ethiopia through gravitational collapse and extension of dynamic topography. <i>Tectonophysics</i> , <b>2017</b> , 699, 213-226	3.1	15
72	Lateral variations of crustal structure beneath the Indochina Peninsula. <i>Tectonophysics</i> , <b>2017</b> , 712-713, 193-199	3.1	7
71	Fault visualization enhancement using ant tracking technique and its application in the Taranaki basin, new Zealand <b>2017</b> ,		1
70	Seismic attributes aided fault detection and enhancement in the Sirte Basin, Libya <b>2017</b> ,		1
69	Receiver function and gravity constraints on crustal structure and vertical movements of the Upper Mississippi Embayment and Ozark Uplift. <i>Journal of Geophysical Research: Solid Earth</i> , <b>2017</b> , 122, 4572-4583	3.6	13
68	Receiver Function Imaging of Mantle Transition Zone Discontinuities Beneath the Tanzania Craton and Adjacent Segments of the East African Rift System. <i>Geophysical Research Letters</i> , <b>2017</b> , 44, 12,116	4.9	6
67	Topography of the Mantle Transition Zone Discontinuities Beneath Alaska and Its Geodynamic Implications: Constraints From Receiver Function Stacking. <i>Journal of Geophysical Research: Solid Earth</i> , <b>2017</b> , 122, 10,352-10,363	3.6	12
66	Seismic anisotropy and mantle dynamics beneath the Malawi Rift Zone, East Africa. <i>Tectonics</i> , <b>2017</b> , 36, 1338-1351	4.3	16
65	Mantle structure beneath the incipient Okavango rift zone in southern Africa <b>2017</b> , 13, 102-111		14
64	Shear wave splitting analyses in Tian Shan: Geodynamic implications of complex seismic anisotropy. <i>Geochemistry, Geophysics, Geosystems</i> , <b>2016</b> , 17, 1975-1989	3.6	19
63	Passive rifting of thick lithosphere in the southern East African Rift: Evidence from mantle transition zone discontinuity topography. <i>Journal of Geophysical Research: Solid Earth</i> , <b>2016</b> , 121, 8068-8079	3.6	15
62	Crustal anisotropy and ductile flow beneath the eastern Tibetan Plateau and adjacent areas. <i>Earth and Planetary Science Letters</i> , <b>2016</b> , 442, 72-79	5.3	45
61	A Uniform Database of Teleseismic Shear-Wave Splitting Measurements for the Western and Central United States: December 2014 Update. <i>Seismological Research Letters</i> , <b>2016</b> , 87, 295-300	3	13
60	A full field static model of the RG-oil field, central Sirte Basin, Libya <b>2016</b> ,		1
59	The mantle transition zone beneath the Afar Depression and adjacent regions: implications for mantle plumes and hydration. <i>Geophysical Journal International</i> , <b>2016</b> , 205, 1756-1766	2.6	15
58	Complex seismic anisotropy beneath western Tibet and its geodynamic implications. <i>Earth and Planetary Science Letters</i> , <b>2015</b> , 413, 167-175	5.3	36
57	Seismic anisotropy beneath the incipient Okavango rift: Implications for rifting initiation. <i>Earth and Planetary Science Letters</i> , <b>2015</b> , 430, 1-8	5.3	19

56	No thermal anomalies in the mantle transition zone beneath an incipient continental rift: evidence from the first receiver function study across the Okavango Rift Zone, Botswana. <i>Geophysical Journal International</i> , <b>2015</b> , 202, 1407-1418	2.6	19
55	Azimuthal anisotropy beneath north central Africa from shear wave splitting analyses. <i>Geochemistry, Geophysics, Geosystems</i> , <b>2015</b> , 16, 1105-1114	3.6	10
54	Determining crustal structure beneath seismic stations overlying a low-velocity sedimentary layer using receiver functions. <i>Journal of Geophysical Research: Solid Earth</i> , <b>2015</b> , 120, 3208-3218	3.6	56
53	A joint receiver function and gravity study of crustal structure beneath the incipient Okavango Rift, Botswana. <i>Geophysical Research Letters</i> , <b>2015</b> , 42, 8398-8405	4.9	19
52	Applicability of the Multiple-Event Stacking Technique for Shear-Wave Splitting Analysis. <i>Bulletin of the Seismological Society of America</i> , <b>2015</b> , 105, 3156-3166	2.3	8
51	A Systematic Comparison of the Transverse Energy Minimization and Splitting Intensity Techniques for Measuring Shear-Wave Splitting Parameters. <i>Bulletin of the Seismological Society of America</i> , <b>2015</b> , 105, 230-239	2.3	7
50	Seismic anisotropy and subduction-induced mantle fabrics beneath the Arabian and Nubian Plates adjacent to the Red Sea. <i>Geophysical Research Letters</i> , <b>2014</b> , 41, 2376-2381	4.9	18
49	Formation of the Cameroon Volcanic Line by lithospheric basal erosion: Insight from mantle seismic anisotropy. <i>Journal of African Earth Sciences</i> , <b>2014</b> , 100, 96-108	2.2	29
48	Mantle flow and lithosphere–asthenosphere coupling beneath the southwestern edge of the North American craton: Constraints from shear-wave splitting measurements. <i>Earth and Planetary Science Letters</i> , <b>2014</b> , 402, 209-220	5.3	28
47	Imaging mantle discontinuities using multiply-reflected P-to-S conversions. <i>Earth and Planetary Science Letters</i> , <b>2014</b> , 402, 99-106	5.3	34
46	Mantle transition zone discontinuities beneath the contiguous United States. <i>Journal of Geophysical Research: Solid Earth</i> , <b>2014</b> , 119, 6452-6468	3.6	61
45	Seismic anisotropy and mantle flow beneath the northern Great Plains of North America. <i>Journal of Geophysical Research: Solid Earth</i> , <b>2014</b> , 119, 1971-1985	3.6	23
44	A uniform database of teleseismic shear wave splitting measurements for the western and central United States. <i>Geochemistry, Geophysics, Geosystems</i> , <b>2014</b> , 15, 2075-2085	3.6	34
43	Seismic imaging of mantle transition zone discontinuities beneath the northern Red Sea and adjacent areas. <i>Geophysical Journal International</i> , <b>2014</b> , 199, 648-657	2.6	17
42	Receiver function constraints on crustal seismic velocities and partial melting beneath the Red Sea rift and adjacent regions, Afar Depression. <i>Journal of Geophysical Research: Solid Earth</i> , <b>2014</b> , 119, 2138-2152	3.6	30
41	Making Reliable Shear-Wave Splitting Measurements. <i>Bulletin of the Seismological Society of America</i> , <b>2013</b> , 103, 2680-2693	2.3	47
40	Crustal thickness and Moho sharpness beneath the Midcontinent rift from receiver functions. <i>Research in Geophysics</i> , <b>2013</b> , 3, 1		10
39	Seismic Arrays to Study African Rift Initiation. <i>Eos</i> , <b>2013</b> , 94, 213-214	1.5	17

38	AnisDep: A FORTRAN program for the estimation of the depth of anisotropy using spatial coherency of shear-wave splitting parameters. <i>Computers and Geosciences</i> , <b>2012</b> , 49, 330-333	4.5	18
37	High-accuracy practical spline-based 3D and 2D integral transformations in potential-field geophysics. <i>Geophysical Prospecting</i> , <b>2012</b> , 60, 1001-1016	1.9	1
36	Magnetic stripes of a transitional continental rift in Afar. <i>Geology</i> , <b>2012</b> , 40, 203-206	5	41
35	Crustal structure and evolution beneath the Colorado Plateau and the southern Basin and Range Province: Results from receiver function and gravity studies. <i>Geochemistry, Geophysics, Geosystems</i> , <b>2011</b> , 12, n/a-n/a	3.6	23
34	Seismic anisotropy of the uppermost mantle beneath the Rio Grande rift: Evidence from Kilbourne Hole peridotite xenoliths, New Mexico. <i>Earth and Planetary Science Letters</i> , <b>2011</b> , 311, 172-181	5.3	22
33	Estimation of the Depth of Anisotropy Using Spatial Coherency of Shear-Wave Splitting Parameters. <i>Bulletin of the Seismological Society of America</i> , <b>2011</b> , 101, 2153-2161	2.3	26
32	Upper mantle structure of the Saharan Metacraton. <i>Journal of African Earth Sciences</i> , <b>2011</b> , 60, 328-336	2.2	70
31	Seismic anisotropy beneath the Afar Depression and adjacent areas: Implications for mantle flow. <i>Journal of Geophysical Research</i> , <b>2010</b> , 115,		49
30	Spatial variations of crustal characteristics beneath the Hoggar swell, Algeria, revealed by systematic analyses of receiver functions from a single seismic station. <i>Geochemistry, Geophysics, Geosystems</i> , <b>2010</b> , 11, n/a-n/a	3.6	44
29	Apparent Weekly and Daily Earthquake Periodicities in the Western United States. <i>Bulletin of the Seismological Society of America</i> , <b>2009</b> , 99, 2273-2279	2.3	29
28	Significant seismic anisotropy beneath the southern Lhasa Terrane, Tibetan Plateau. <i>Geochemistry, Geophysics, Geosystems</i> , <b>2009</b> , 10, n/a-n/a	3.6	47
27	Shear wave splitting and mantle flow associated with the deflected Pacific slab beneath northeast Asia. <i>Journal of Geophysical Research</i> , <b>2008</b> , 113,		70
26	Rationale for a Permanent Seismic Network in the U.S. Central Plains Utilizing USArray. <i>Eos</i> , <b>2008</b> , 89, 85-85	1.5	
25	Characteristics of mantle fabrics beneath the south-central United States: Constraints from shear-wave splitting measurements <b>2008</b> , 4, 411		19
24	Southern African crustal evolution and composition: Constraints from receiver function studies. <i>Journal of Geophysical Research</i> , <b>2006</b> , 111, n/a-n/a		120
23	Mantle transition zone discontinuities beneath the Baikal rift and adjacent areas. <i>Journal of Geophysical Research</i> , <b>2006</b> , 111, n/a-n/a		22
22	Deep structure and origin of the Baikal rift zone. <i>Earth and Planetary Science Letters</i> , <b>2006</b> , 243, 681-691	5.3	88
21	Spatial variation of seismic b-values beneath Makushin Volcano, Unalaska Island, Alaska. <i>Earth and Planetary Science Letters</i> , <b>2006</b> , 245, 408-415	5.3	41

20	Seismic anisotropy, mantle fabric, and the magmatic evolution of Precambrian southern Africa. <i>South African Journal of Geology</i> , <b>2004</b> , 107, 45-58	1.6	57
19	Seafloor asymmetry in the Atlantic Ocean. <i>Journal of Ocean University of China</i> , <b>2004</b> , 3, 191-194	1	1
18	Significant crustal thinning beneath the Baikal rift zone: New constraints from receiver function analysis. <i>Geophysical Research Letters</i> , <b>2004</b> , 31,	4.9	39
17	Evidence for small-scale mantle convection in the upper mantle beneath the Baikal rift zone. <i>Journal of Geophysical Research</i> , <b>2003</b> , 108,		56
16	Mantle layering across central South America. <i>Journal of Geophysical Research</i> , <b>2003</b> , 108,		48
15	Low-coherent WDM reflectometry for accurate fiber length monitoring. <i>IEEE Photonics Technology Letters</i> , <b>2003</b> , 15, 96-98	2.2	7
14	Low seismic velocity layers in the Earth's crust beneath Eastern Siberia (Russia) and Central Mongolia: receiver function data and their possible geological implication. <i>Tectonophysics</i> , <b>2002</b> , 359, 307-327	3.1	69
13	Temporal variation of seismic b-values beneath northeastern Japan island arc. <i>Geophysical Research Letters</i> , <b>2002</b> , 29, 48-1-48-3	4.9	111
12	Mantle discontinuities beneath Southern Africa. <i>Geophysical Research Letters</i> , <b>2002</b> , 29, 129-1-129-4	4.9	48
11	Characterization of a Continuous, Very Narrowband Seismic Signal near 2.08 Hz. <i>Bulletin of the Seismological Society of America</i> , <b>2001</b> , 91, 1910-1916	2.3	2
10	Mantle deformation beneath southern Africa. <i>Geophysical Research Letters</i> , <b>2001</b> , 28, 2493-2496	4.9	95
9	Annual modulation of triggered seismicity following the 1992 Landers earthquake in California. <i>Nature</i> , <b>2000</b> , 406, 500-4	50.4	52
8	Northridge earthquake damage caused by geologic focusing of seismic waves. <i>Science</i> , <b>2000</b> , 289, 1746-50,3	59.3	66
7	Analysis of deformation data at Parkfield, California: Detection of a long-term strain transient. <i>Journal of Geophysical Research</i> , <b>2000</b> , 105, 2955-2967		28
6	Reply [to Comment on SKS splitting beneath continental rifts zones by Gao et al.] <i>Journal of Geophysical Research</i> , <b>1999</b> , 104, 10791-10794		7
5	SKS splitting beneath continental rift zones. <i>Journal of Geophysical Research</i> , <b>1997</b> , 102, 22781-22797		134
4	SKS splitting beneath southern California. <i>Geophysical Research Letters</i> , <b>1995</b> , 22, 767-770	4.9	40
3	Seismic anisotropy and mantle flow beneath the Baikal rift zone. <i>Nature</i> , <b>1994</b> , 371, 149-151	50.4	107

2 Asymmetric upwarp of the asthenosphere beneath the Baikal rift zone, Siberia. *Journal of Geophysical Research*, **1994**, 99, 15319

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1 Crustal and Upper Mantle Structure Beneath the Southeastern United States from Joint Inversion of Receiver Functions and Rayleigh Wave Dispersion. *Journal of Geophysical Research: Solid Earth*, e2021JB021846