Meghan Miller

List of Publications by Year
in descending order

85 papers	3,381 citations	136950 32 h-index	155660 55 g-index
93 all docs	93 docs citations	93 times ranked	3424 citing authors

#	Article	IF	Citations
1	Kinematics of slab tear faults during subduction segmentation and implications for Italian magmatism. Tectonics, 2008, 27, .	2.8	302
2	Continuing Colorado plateau uplift by delamination-style convective lithospheric downwelling. Nature, 2011, 472, 461-465.	27.8	258
3	Dynamics of continental accretion. Nature, 2014, 508, 245-248.	27.8	214
4	Global quieting of high-frequency seismic noise due to COVID-19 pandemic lockdown measures. Science, 2020, 369, 1338-1343.	12.6	202
5	Evolutionary aspects of lithosphere discontinuity structure in the western U.S.. Geochemistry, Geophysics, Geosystems, 2012, 13, .	2.5	118
6	Isostasy, dynamic topography, and the elevation of the Apennines of Italy. Earth and Planetary Science Letters, 2014, 407, 163-174.	4.4	91
7	Three-dimensional numerical models of the influence of a buoyant oceanic plateau on subduction zones. Tectonophysics, 2010, 483, 71-79.	2.2	90
8	Spatial and temporal evolution of the subducting Pacific plate structure along the western Pacific margin. Journal of Geophysical Research, 2006, 111, n/a-n/a.	3.3	88
9	Formation of cratonic mantle keels by arc accretion: Evidence from S receiver functions. Geophysical Research Letters, 2010, 37, .	4.0	74
10	Crustal Structure of Active Deformation Zones in Africa: Implications for Global Crustal Processes. Tectonics, 2017, 36, 3298-3332.	2.8	72
11	New kinematic models for Pacific-North America Motion from 3 Ma to Present, II: Evidence for a â€œBaja California Shear Zoneâ€• Geophysical Research Letters, 2000, 27, 3961-3964.	4.0	70
12	Heterogeneity within the subducting Pacific slab beneath the Izuâ€“Boninâ€“Mariana arc: Evidence from tomography using 3D ray tracing inversion techniques. Earth and Planetary Science Letters, 2005, 235, 331-342.	4.4	66
13	Subduction-driven recycling of continental margin lithosphere. Nature, 2014, 515, 253-256.	27.8	66
14	Imaging changes in morphology, geometry, and physical properties of the subducting Pacific plate along the Izuâ€“Boninâ€“Mariana arc. Earth and Planetary Science Letters, 2004, 224, 363-370.	4.4	61
15	Three-dimensional visualization of a near-vertical slab tear beneath the southern Mariana arc. Geochemistry, Geophysics, Geosystems, 2006, 7, n/a-n/a.	2.5	61
16	Static and dynamic support of western United States topography. Earth and Planetary Science Letters, 2014, 402, 234-246.	4.4	61
17	The geophysical signatures of the West African Craton. Precambrian Research, 2016, 274, 3-24.	2.7	54
18	Seismic Imaging of the Alaska Subduction Zone: Implications for Slab Geometry and Volcanism. Geochemistry, Geophysics, Geosystems, 2018, 19, 4541-4560.	2.5	52

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19	Mantle flow deflected by interactions between subducted slabs and cratonic keels. Nature Geoscience, 2012, 5, 726-730.	12.9	51
20	Constraints on the tectonic evolution of the westernmost Mediterranean and northwestern Africa from shear wave splitting analysis. Earth and Planetary Science Letters, 2013, 375, 234-243.	4.4	51
21	Reactivated lithospheric-scale discontinuities localize dynamic uplift of the Moroccan Atlas Mountains. Geology, 2014, 42, 35-38.	4.4	50
22	Seismic imaging of the Cocos plate subduction zone system in central Mexico. Geochemistry, Geophysics, Geosystems, 2012, 13, .	2.5	47
23	Insights into the evolution of the Italian lithospheric structure from S receiver function analysis. Earth and Planetary Science Letters, 2012, 345-348, 49-59.	4.4	45
24	Upper mantle structure beneath the Caribbeanâ€South American plate boundary from surface wave tomography. Journal of Geophysical Research, 2009, 114, .	3.3	43
25	Multiscale crustal architecture of Alaska inferred from P receiver functions. Lithosphere, 2018, 10, 267-278.	1.4	43
26	Imaging Canary Island hotspot material beneath the lithosphere of Morocco and southern Spain. Earth and Planetary Science Letters, 2015, 431, 186-194.	4.4	42
27	Identification and tectonic implications of a tear in the South American plate at the southern end of the Lesser Antilles. Geochemistry, Geophysics, Geosystems, 2008, 9, .	2.5	38
28	Melting under the Colorado Plateau, USA. Geology, 2012, 40, 387-390.	4.4	36
29	Craton formation: Internal structure inherited from closing of the early oceans. Lithosphere, 2014, 6, 35-42.	1.4	36
30	Geodynamics of oceanic plateau and plume head accretion and their role in Phanerozoic orogenic systems of China. Geoscience Frontiers, 2015, 6, 49-59.	8.4	36
31	Morphology of the distorted subducted Pacific slab beneath the Hokkaido corner, Japan. Physics of the Earth and Planetary Interiors, 2006, 156, 1-11.	1.9	35
32	Lithospheric discontinuity structure in Alaska, thickness variations determined bySpreceiver functions. Tectonics, 2015, 34, 694-714.	2.8	35
33	Collisional Processes and Links to Episodic Changes in Subduction Zones. Elements, 2015, 11, 119-124.	0.5	33
34	Continentâ€“arc collision in the Banda Arc imaged by ambient noise tomography. Earth and Planetary Science Letters, 2016, 449, 246-258.	4.4	33
35	V_S and density structure beneath the Colorado Plateau constrained by gravity anomalies and joint inversions of receiver function and phase velocity data. Journal of Geophysical Research, 2012, 117, .	3.3	31
36	Structure beneath the Alboran from geodynamic flow models and seismic anisotropy. Journal of Geophysical Research: Solid Earth, 2013, 118, 4265-4277.	3.4	31

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37	Lithospheric architecture beneath <scp>H</scp>udson <scp>B</scp>ay. Geochemistry, Geophysics, Geosystems, 2015, 16, 2262-2275.	2.5	31
38	Imaging crustal and upper mantle structure beneath the Colorado Plateau using finite frequency Rayleigh wave tomography. Geochemistry, Geophysics, Geosystems, 2011, 12, n/a-n/a.	2.5	30
39	Intermediateâ€Depth Earthquakes Controlled by Incoming Plate Hydration Along Bendingâ€Related Faults. Geophysical Research Letters, 2019, 46, 3688-3697.	4.0	30
40	The fate of the downgoing oceanic plate: Insight from the Northern Cascadia subduction zone. Earth and Planetary Science Letters, 2014, 408, 237-251.	4.4	28
41	Insights on the upper mantle beneath the Eastern Alps. Earth and Planetary Science Letters, 2014, 403, 199-209.	4.4	27
42	Major disruption of Dâ€³ beneath Alaska. Journal of Geophysical Research: Solid Earth, 2016, 121, 3534-3556.	3.4	26
43	Updates to FuncLab, a Matlab based GUI for handling receiver functions. Computers and Geosciences, 2018, 111, 260-271.	4.2	26
44	Evolution of mantle structure beneath the northwest Pacific: Evidence from seismic tomography and paleogeographic reconstructions. Tectonics, 2006, 25, n/a-n/a.	2.8	25
45	Flatâ€slab subduction, topography, and mantle dynamics in southwestern Mexico. Tectonics, 2015, 34, 1892-1909.	2.8	25
46	The structural evolution of the deep continental lithosphere. Tectonophysics, 2017, 695, 100-121.	2.2	25
47	Mapping the Alaskan Moho. Seismological Research Letters, 2018, 89, 2430-2436.	1.9	25
48	Study of the western edge of the African Large Low Shear Velocity Province. Geochemistry, Geophysics, Geosystems, 2013, 14, 3109-3125.	2.5	23
49	High frequency seismic waves and slab structures beneath Italy. Earth and Planetary Science Letters, 2014, 391, 212-223.	4.4	23
50	Tomographic Imaging of Slab Segmentation and Deformation in the Greater Antilles. Geochemistry, Geophysics, Geosystems, 2018, 19, 2292-2307.	2.5	21
51	A Detailed Earthquake Catalog for Banda Arcâ€“Australian Plate Collision Zone Using Machine-Learning Phase Picker and an Automated Workflow. The Seismic Record, 2022, 2, 1-10.	3.1	21
52	A comparison of oceanic and continental mantle lithosphere. Physics of the Earth and Planetary Interiors, 2020, 309, 106600.	1.9	20
53	Fate of Forearc Lithosphere at Arcâ€Continent Collision Zones: Evidence From Local Earthquake Tomography of the Sundaâ€Banda Arc Transition, Indonesia. Geophysical Research Letters, 2020, 47, e2019GL086472.	4.0	20
54	Bulldozing the coreâ€“mantle boundary: Localized seismic scatterers beneath the Caribbean Sea. Physics of the Earth and Planetary Interiors, 2008, 170, 89-94.	1.9	19

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55	Erosion of the continental lithosphere at the cusps of the Calabrian arc: Evidence fromSreceiver functions analysis. Geophysical Research Letters, 2011, 38, n/a-n/a.	4.0	17
56	SASSY21: A 3â€D Seismic Structural Model of the Lithosphere and Underlying Mantle Beneath Southeast Asia From Multiâ€Scale Adjoint Waveform Tomography. Journal of Geophysical Research: Solid Earth, 2022, 127, .	3.4	17
57	Moho structure across the San Jacinto fault zone: Insights into strain localization at depth. Lithosphere, 2014, 6, 43-47.	1.4	16
58	Aspherical structural heterogeneity within the uppermost inner core: Insights into the hemispherical boundaries and core formation. Physics of the Earth and Planetary Interiors, 2013, 223, 8-20.	1.9	15
59	Hot upwelling conduit beneath the Atlas Mountains, Morocco. Geophysical Research Letters, 2014, 41, 8037-8044.	4.0	15
60	Banda Arc Experimentâ€"Transitions in the Banda Arcâ€Australian Continental Collision. Seismological Research Letters, 2016, 87, 1417-1423.	1.9	14
61	Subducted Lithospheric Boundary Tomographically Imaged Beneath Arcâ€Continent Collision in Eastern Indonesia. Journal of Geophysical Research: Solid Earth, 2020, 125, e2019JB018854.	3.4	13
62	Possible chemical modification of oceanic lithosphere by hotspot magmatism: Seismic evidence from the junction of Ninetyeast Ridge and the Sumatraâ€"Andaman arc. Earth and Planetary Science Letters, 2008, 265, 386-395.	4.4	12
63	Mantle flow at the highly arcuate northeast corner of the Lesser Antilles subduction zone: Constraints from shear-wave splitting analyses. Lithosphere, 2015, 7, 579-587.	1.4	11
64	Irregular Transition Layer Beneath the Earth's Inner Core Boundary From Observations of Antipodal PKIKP and PKIIKP Waves. Geochemistry, Geophysics, Geosystems, 2018, 19, 3607-3622.	2.5	11
65	Seismic Imaging of the Subducted Australian Continental Margin Beneath Timor and the Banda Arc Collision Zone. Geophysical Research Letters, 2021, 48, e2020GL089632.	4.0	11
66	Coâ€seismic deformation of deep slabs based on summed CMT data. Journal of Geophysical Research, 2012, 117, .	3.3	9
67	Oligocene-Neogene lithospheric-scale reactivation of Mesozoic terrane accretionary structures in the Alaska Range suture zone, southern Alaska, USA. Bulletin of the Geological Society of America, 2021, 133, 691-716.	3.3	8
68	On the destructive tendencies of cratons. Geology, 2021, 49, 195-200.	4.4	7
69	Inflation and Asymmetric Collapse at KÄ«lauea Summit During the 2018 Eruption From Seismic and Infrasound Analyses. Journal of Geophysical Research: Solid Earth, 2021, 126, e2021JB022139.	3.4	7
70	Tectonic Fabric in the Banda Arcâ€Australian Continent Collisional Zone Imaged by Teleseismic Receiver Functions. Geochemistry, Geophysics, Geosystems, 2022, 23, .	2.5	5
71	Seismic imaging the Dâ€³ region beneath the Central Atlantic. Physics of the Earth and Planetary Interiors, 2019, 292, 76-86.	1.9	4
72	Mapping Earth's deepest secrets. Science, 2020, 368, 1183-1184.	12.6	4

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73	Small-scale heterogeneity in the lowermost mantle beneath Alaska and northern Pacific revealed from shear-wave triplications. Earth and Planetary Science Letters, 2021, 559, 116768.	4.4	4
74	Mantle Flow Deflected by Arcâ€“Continent Collision and Continental Subduction in Eastern Indonesia. Seismological Research Letters, 2022, 93, 1812-1834.	1.9	4
75	Evidence of an upper mantle seismic anomaly opposing the <scp>C</scp>ocos slab beneath the <scp>I</scp>sthmus of <scp>T</scp>ehuantepec, <scp>M</scp>exico. Geochemistry, Geophysics, Geosystems, 2014, 15, 3021-3034.	2.5	3
76	Tectonic Inheritance During Plate Boundary Evolution in Southern California Constrained From Seismic Anisotropy. Geochemistry, Geophysics, Geosystems, 2021, 22, e2021GC010099.	2.5	3
77	Chapter 7 Seismic interpretation and processing applications. Handbook of Geophysical Exploration: Seismic Exploration, 2001, , 101-118.	0.3	2
78	Seismic Evidence for Thermal and Chemical Heterogeneities in Dâ€³ Region Beneath Central America From Grid Search Modeling. Geophysical Research Letters, 2021, 48, e2021GL092493.	4.0	2
79	Introduction to the Focus Section on EarthScope Alaska and Canada. Seismological Research Letters, 2020, 91, 3015-3016.	1.9	1
80	Breaking the slab. Nature Geoscience, 2008, 1, 730-731.	12.9	0
81	Reactivated lithospheric-scale discontinuities localize dynamic uplift of the Moroccan Atlas Mountains: REPLY. Geology, 2014, 42, e338-e338.	4.4	0
82	Introduction to â€œOrogenic Cycles: From Field Observations to Global Geodynamicsâ€• Tectonics, 2019, 38, 3-6.	2.8	0
83	Active Seismicity in the Flinders Ranges. Journal of the Virtual Explorer, 0, 20, .	0.0	0
84	Establishing earthquake monitoring in Timorâ€“Leste. , 2017, , .		0
85	Rapid deployment for earthquake aftershock monitoring in southwest Western Australia â€“ the Arthur River swarm 2022. Preview, 2022, 2022, 39-41.	0.1	0