

Dirk Klaeschen

List of Publications by Year in descending order

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104
papers

3,911
citations

101543

36
h-index

144013

57
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109
all docs

109
docs citations

109
times ranked

3377
citing authors

#	ARTICLE	IF	CITATIONS
1	Structure of the Makran subduction zone from wide-angle and reflection seismic data. <i>Tectonophysics</i> , 2000, 329, 171-191.	2.2	212
2	The Calabrian Arc subduction complex in the Ionian Sea: Regional architecture, active deformation, and seismic hazard. <i>Tectonics</i> , 2011, 30, .	2.8	159
3	The S reflector west of Galicia (Spain): Evidence from prestack depth migration for detachment faulting during continental breakup. <i>Journal of Geophysical Research</i> , 1996, 101, 8075-8091.	3.3	149
4	High-resolution P-Cable 3D seismic imaging of gas chimney structures in gas hydrated sediments of an Arctic sediment drift. <i>Marine and Petroleum Geology</i> , 2010, 27, 1981-1994.	3.3	138
5	New seismic images of the Cascadia subduction zone from cruise SO108 "ORWELL". <i>Tectonophysics</i> , 1998, 293, 69-84.	2.2	100
6	Tectonic structure across the accretionary and erosional parts of the Japan Trench margin. <i>Journal of Geophysical Research</i> , 1994, 99, 22349-22361.	3.3	95
7	The Ionian and Alfeo "Etna fault zones: New segments of an evolving plate boundary in the central Mediterranean Sea?. <i>Tectonophysics</i> , 2016, 675, 69-90.	2.2	93
8	Extreme efficiency of mud volcanism in dewatering accretionary prisms. <i>Earth and Planetary Science Letters</i> , 2001, 189, 295-313.	4.4	90
9	Crustal structure of the central Sunda margin at the onset of oblique subduction. <i>Geophysical Journal International</i> , 2001, 147, 449-474.	2.4	88
10	Deep structure of the central Lesser Antilles Island Arc: Relevance for the formation of continental crust. <i>Earth and Planetary Science Letters</i> , 2011, 304, 121-134.	4.4	83
11	Seismic investigations of the O'Higgins Seamount Group and Juan Fernandez Ridge: Aseismic ridge emplacement and lithosphere hydration. <i>Tectonics</i> , 2004, 23, n/a-n/a.	2.8	79
12	Fault-controlled hydration of the upper mantle during continental rifting. <i>Nature Geoscience</i> , 2016, 9, 384-388.	12.9	75
13	Evolution of fluid expulsion and concentrated hydrate zones across the southern Hikurangi subduction margin, New Zealand: An analysis from depth migrated seismic data. <i>Geochemistry, Geophysics, Geosystems</i> , 2012, 13, .	2.5	74
14	Propagation of a lithospheric tear fault (STEP) through the western boundary of the Calabrian accretionary wedge offshore eastern Sicily (Southern Italy). <i>Tectonophysics</i> , 2013, 602, 141-152.	2.2	74
15	Crustal structure of the Java margin from seismic wide-angle and multichannel reflection data. <i>Journal of Geophysical Research</i> , 2002, 107, ETG 1-1.	3.3	67
16	Upward delamination of Cascadia Basin sediment infill with landward frontal accretion thrusting caused by rapid glacial age material flux. <i>Tectonics</i> , 2004, 23, n/a-n/a.	2.8	67
17	Ocean temperature and salinity inverted from combined hydrographic and seismic data. <i>Geophysical Research Letters</i> , 2010, 37, .	4.0	65
18	Non-Coulomb wedges, wrong-way thrusting, and natural hazards in Cascadia. <i>Geology</i> , 2001, 29, 379.	4.4	63

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19	On the origin of multiple BSRs in the Danube deep-sea fan, Black Sea. <i>Earth and Planetary Science Letters</i> , 2017, 462, 15-25.	4.4	59
20	The Mediterranean Ridge: A mass balance across the fastest growing accretionary complex on Earth. <i>Journal of Geophysical Research</i> , 2003, 108, .	3.3	58
21	Extreme crustal thinning in the south Porcupine Basin and the nature of the Porcupine Median High: implications for the formation of non-volcanic rifted margins. <i>Journal of the Geological Society</i> , 2004, 161, 783-798.	2.1	57
22	Gas-controlled seafloor doming. <i>Geology</i> , 2015, 43, 571-574.	4.4	56
23	Continental hyperextension, mantle exhumation, and thin oceanic crust at the continent-ocean transition, West Iberia: New insights from wide-angle seismic. <i>Journal of Geophysical Research: Solid Earth</i> , 2016, 121, 3177-3199.	3.4	53
24	Mass and fluid flux during accretion at the Alaskan margin. <i>Bulletin of the Geological Society of America</i> , 1998, 110, 468-482.	3.3	51
25	Internal configuration of the Levantine Basin from seismic reflection data (eastern Mediterranean). <i>Earth and Planetary Science Letters</i> , 2000, 180, 77-89.	4.4	49
26	The continental margin off Oregon from seismic investigations. <i>Tectonophysics</i> , 2000, 329, 79-97.	2.2	49
27	Movement along a low-angle normal fault: The S reflector west of Spain. <i>Geochemistry, Geophysics, Geosystems</i> , 2007, 8, n/a-n/a.	2.5	49
28	Mid-depth internal wave energy off the Iberian Peninsula estimated from seismic reflection data. <i>Journal of Geophysical Research</i> , 2008, 113, .	3.3	49
29	A Miocene tectonic inversion in the Ionian Sea (central Mediterranean): Evidence from multichannel seismic data. <i>Journal of Geophysical Research</i> , 2011, 116, .	3.3	48
30	Seismic evidence for shallow gas-escape features associated with a retreating gas hydrate zone offshore west Svalbard. <i>Journal of Geophysical Research</i> , 2012, 117, .	3.3	47
31	Crustal structure along the EDGE transect beneath the Kodiak shelf off Alaska derived from OBH seismic refraction data. <i>Geophysical Journal International</i> , 1997, 130, 283-302.	2.4	44
32	From gradual spreading to catastrophic collapse – Reconstruction of the 1888 Ritter Island volcanic sector collapse from high-resolution 3D seismic data. <i>Earth and Planetary Science Letters</i> , 2019, 517, 1-13.	4.4	44
33	Evidence for active strike-slip faulting along the Eurasia-Africa convergence zone: Implications for seismic hazard in the southwest Iberian margin. <i>Geology</i> , 2012, 40, 495-498.	4.4	43
34	Frontal accretion along the western Mediterranean Ridge: the effect of Messinian evaporites on wedge mechanics and structural style. <i>Marine Geology</i> , 2002, 186, 59-82.	2.1	42
35	Active deformation in old oceanic lithosphere and significance for earthquake hazard: Seismic imaging of the Coral Patch Ridge area and neighboring abyssal plains (SW Iberian Margin). <i>Geochemistry, Geophysics, Geosystems</i> , 2013, 14, 2206-2231.	2.5	42
36	The impact of fluid advection on gas hydrate stability: Investigations at sites of methane seepage offshore Costa Rica. <i>Earth and Planetary Science Letters</i> , 2014, 401, 95-109.	4.4	42

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37	Early-stage rifting of the northern Tyrrhenian Sea Basin: Results from a combined wide-angle and multichannel seismic study. <i>Geochemistry, Geophysics, Geosystems</i> , 2013, 14, 3032-3052.	2.5	41
38	Insights into the emplacement dynamics of volcanic landslides from high-resolution 3D seismic data acquired offshore Montserrat, Lesser Antilles. <i>Marine Geology</i> , 2013, 335, 1-15.	2.1	39
39	Lower slope morphology of the Sumatra trench system. <i>Basin Research</i> , 2008, 20, 519-529.	2.7	37
40	Heterogeneous deformation in the Cascadia convergent margin and its relation to thermal gradient (Washington, NW USA). <i>Tectonics</i> , 2008, 27, .	2.8	37
41	Structure of the Kuril Trench from seismic reflection records. <i>Journal of Geophysical Research</i> , 1994, 99, 24173-24188.	3.3	36
42	Seismic images at the convergence zone from south of Cyprus to the Syrian coast, eastern Mediterranean. <i>Tectonophysics</i> , 2000, 329, 157-170.	2.2	36
43	Drivers of focused fluid flow and methane seepage at south Hydrate Ridge, offshore Oregon, USA. <i>Geology</i> , 2013, 41, 551-554.	4.4	35
44	The structure of the Africa-Anatolia plate boundary in the eastern Mediterranean. <i>Tectonics</i> , 2000, 19, 723-739.	2.8	34
45	Submarine gas seepage in a mixed contractional and shear deformation regime: Cases from the Hikurangi oblique subduction margin. <i>Geochemistry, Geophysics, Geosystems</i> , 2014, 15, 416-433.	2.5	33
46	Local seismic quantification of gas hydrates and BSR characterization from multi-frequency OBS data at northern Hydrate Ridge. <i>Earth and Planetary Science Letters</i> , 2007, 255, 414-431.	4.4	32
47	Two-stage growth of the Calabrian accretionary wedge in the Ionian Sea (Central Mediterranean): Constraints from depth-migrated multichannel seismic data. <i>Marine Geology</i> , 2012, 326-328, 28-45.	2.1	32
48	Crustal strain-dependent serpentinisation in the Porcupine Basin, offshore Ireland. <i>Earth and Planetary Science Letters</i> , 2017, 474, 148-159.	4.4	32
49	Seismic reflection along the path of the Mediterranean Undercurrent. <i>Continental Shelf Research</i> , 2009, 29, 1848-1860.	1.8	31
50	Opposing gradients of permanent strain in the aseismic zone and elastic strain across the seismogenic zone of the Kodiak shelf and slope, Alaska. <i>Tectonics</i> , 1999, 18, 248-262.	2.8	30
51	Anatomy of the western Java plate interface from depth-migrated seismic images. <i>Earth and Planetary Science Letters</i> , 2009, 288, 399-407.	4.4	30
52	Estimating movement of reflectors in the water column using seismic oceanography. <i>Geophysical Research Letters</i> , 2009, 36, .	4.0	30
53	Tectonic Controls on Gas Hydrate Distribution Off SW Taiwan. <i>Journal of Geophysical Research: Solid Earth</i> , 2019, 124, 1164-1184.	3.4	30
54	High-resolution, deep tow, multichannel seismic and sidescan sonar survey of the submarine mounds and associated BSR off Nicaragua pacific margin. <i>Marine Geology</i> , 2007, 241, 33-43.	2.1	28

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55	Effect of seismic source bandwidth on reflection sections to image water structure. <i>Geophysical Research Letters</i> , 2009, 36, .	4.0	26
56	Gas hydrate distribution and hydrocarbon maturation north of the Knipovich Ridge, western Svalbard margin. <i>Journal of Geophysical Research: Solid Earth</i> , 2016, 121, 1405-1424.	3.4	26
57	Relation between the Subducting Plate and Seismicity Associated with the Great 1964 Alaska Earthquake. <i>Pure and Applied Geophysics</i> , 1999, 154, 575-591.	1.9	23
58	<i>P</i> and <i>S</i> wave velocity measurements of water-rich sediments from the Nankai Trough, Japan. <i>Journal of Geophysical Research: Solid Earth</i> , 2014, 119, 787-805.	3.4	23
59	Splay fault branching from the Hikurangi subduction shear zone: Implications for slow slip and fluid flow. <i>Geochemistry, Geophysics, Geosystems</i> , 2016, 17, 5009-5023.	2.5	23
60	Resolving the fine-scale velocity structure of continental hyperextension at the Deep Galicia Margin using full-waveform inversion. <i>Geophysical Journal International</i> , 2018, 212, 244-263.	2.4	23
61	Characterization of the submesoscale energy cascade in the Alboran Sea thermocline from spectral analysis of high-resolution MCS data. <i>Geophysical Research Letters</i> , 2016, 43, 6461-6468.	4.0	22
62	Seismic Oceanography in the Tyrrhenian Sea: Thermohaline Staircases, Eddies, and Internal Waves. <i>Journal of Geophysical Research: Oceans</i> , 2017, 122, 8503-8523.	2.6	22
63	Linked halokinesis and mud volcanism at the Mercator mud volcano, Gulf of Cadiz. <i>Journal of Geophysical Research</i> , 2011, 116, .	3.3	21
64	Heat flow in the southern Chile forearc controlled by large-scale tectonic processes. <i>Geo-Marine Letters</i> , 2014, 34, 185-198.	1.1	21
65	Estimating internal wave spectra using constrained models of the dynamic ocean. <i>Geophysical Research Letters</i> , 2009, 36, .	4.0	19
66	Crustal thinning in the northern Tyrrhenian Rift: Insights from multichannel and wide-angle seismic data across the basin. <i>Journal of Geophysical Research: Solid Earth</i> , 2014, 119, 1655-1677.	3.4	19
67	Deep structure of the Porcupine Basin from wide-angle seismic data. <i>Petroleum Geology Conference Proceedings</i> , 2018, 8, 199-209.	0.7	19
68	Ionian Abyssal Plain: a window into the Tethys oceanic lithosphere. <i>Solid Earth</i> , 2019, 10, 447-462.	2.8	19
69	Insights into active deformation in the Gulf of Cadiz from new 3-D seismic and high-resolution bathymetry data. <i>Geochemistry, Geophysics, Geosystems</i> , 2011, 12, n/a-n/a.	2.5	18
70	Gas migration through Opouawe Bank at the Hikurangi margin offshore New Zealand. <i>Geo-Marine Letters</i> , 2016, 36, 187-196.	1.1	18
71	Morphostructure, tectono-sedimentary evolution and seismic potential of the Horseshoe Fault, SW Iberian Margin. <i>Basin Research</i> , 2018, 30, 382-400.	2.7	18
72	Crustal structure of the central Costa Rica subduction zone: implications for basal erosion from seismic wide-angle data. <i>Geophysical Journal International</i> , 2009, 178, 1112-1131.	2.4	17

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73	Effect of bandwidth on seismic imaging of rotating stratified turbulence surrounding an anticyclonic eddy from field data and numerical simulations. <i>Geophysical Research Letters</i> , 2009, 36, .	4.0	17
74	High resolution seismic imaging of the ocean structure using a small volume airgun source array in the Gulf of Cadiz. <i>Geophysical Research Letters</i> , 2009, 36, .	4.0	17
75	Tectonic regime of the southern Kurile Trench as revealed by multichannel seismic lines. <i>Tectonophysics</i> , 1995, 241, 259-277.	2.2	16
76	Subduction system variability across the segment boundary of the 2004/2005 Sumatra megathrust earthquakes. <i>Earth and Planetary Science Letters</i> , 2013, 365, 108-119.	4.4	16
77	From Continental Hyperextension to Seafloor Spreading: New Insights on the Porcupine Basin From Wide-Angle Seismic Data. <i>Journal of Geophysical Research: Solid Earth</i> , 2018, 123, 8312-8330.	3.4	16
78	A first estimation of gas hydrates offshore Patagonia (Chile). <i>Marine and Petroleum Geology</i> , 2018, 96, 232-239.	3.3	15
79	Subducted sediments, upper-plate deformation and dewatering at New Zealand's southern Hikurangi subduction margin. <i>Earth and Planetary Science Letters</i> , 2020, 530, 115945.	4.4	15
80	Mass wasting at the base of the south central Chilean continental margin: the Reloca Slide. <i>Advances in Geosciences</i> , 0, 22, 155-167.	12.0	15
81	New insights into geology and geochemistry of the Kerch seep area in the Black Sea. <i>Marine and Petroleum Geology</i> , 2020, 113, 104162.	3.3	13
82	Detachment tectonics at Mid-Atlantic Ridge 26°N. <i>Scientific Reports</i> , 2019, 9, 11830.	3.3	12
83	Seismic reflection imaging of mixing processes in Fram Strait. <i>Journal of Geophysical Research: Oceans</i> , 2015, 120, 6884-6896.	2.6	11
84	A Possible Source Mechanism of the 1946 Unimak Alaska Far-Field Tsunami: Uplift of the Mid-Slope Terrace Above a Splay Fault Zone. <i>Pure and Applied Geophysics</i> , 2016, 173, 4189-4201.	1.9	11
85	An automated ray method for diffraction modelling in complex media. <i>Geophysical Journal International</i> , 1994, 116, 23-38.	2.4	10
86	Relationship Between Subduction Erosion and the Uplift Limit of the 2014 Mw 8.1 Iquique Earthquake. <i>Geophysical Research Letters</i> , 2021, 48, e2020GL092207.	4.0	10
87	Stochastic Heterogeneity Mapping around a Mediterranean salt lens. <i>Ocean Science</i> , 2010, 6, 423-429.	3.4	9
88	Elongate fluid flow structures: Stress control on gas migration at Opouawe Bank, New Zealand. <i>Marine and Petroleum Geology</i> , 2018, 92, 913-931.	3.3	9
89	The case against porosity change: Seismic velocity decrease at the toe of the Oregon accretionary prism. <i>Geology</i> , 1995, 23, 827.	4.4	8
90	Geophysical evidence for late stage magmatism at the central Ninetyeast Ridge, Eastern Indian Ocean. <i>Marine Geophysical Researches</i> , 2001, 22, 225-234.	1.2	8

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91	Dual-vergence structure from multiple migration of widely spaced OBSs. <i>Tectonophysics</i> , 2017, 718, 45-60.	2.2	7
92	Wide-angle vibroseis data from the western Rhenish Massif. <i>Tectonophysics</i> , 1990, 173, 83-93.	2.2	6
93	Tectonic framework of the mud mounds, associated BSRs and submarine landslides, offshore Nicaragua Pacific margin. <i>Journal of the Geological Society</i> , 2008, 165, 167-176.	2.1	6
94	Margin architecture and seismic attenuation in the central Costa Rican forearc. <i>Marine Geology</i> , 2010, 276, 30-41.	2.1	5
95	Subducting oceanic basement roughness impacts on upper-plate tectonic structure and a backstop splay fault zone activated in the southern Kodiak aftershock region of the Mw 9.2, 1964 megathrust rupture, Alaska. , 2021, 17, 409-437.		5
96	Marine forearc structure of eastern Java and its role in the 1994 Java tsunami earthquake. <i>Solid Earth</i> , 2021, 12, 2467-2477.	2.8	5
97	AVA analysis in the eastern Mediterranean. <i>Physics and Chemistry of the Earth</i> , 1999, 24, 467-474.	0.6	4
98	Megathrust reflectivity reveals the updip limit of the 2014 Iquique earthquake rupture. <i>Nature Communications</i> , 2022, 13, .	12.8	4
99	Comparison of 2-D and 3-D full waveform inversion imaging using wide-angle seismic data from the Deep Galicia Margin. <i>Geophysical Journal International</i> , 2021, 227, 228-256.	2.4	3
100	AVA analysis reveals in situ sediment diagenesis at the Costa Rican dÃ©collement. <i>Sedimentary Geology</i> , 2007, 196, 269-277.	2.1	2
101	Potential of 3â€ vertical seismic profiles to characterize seismogenic fault zones. <i>Geochemistry, Geophysics, Geosystems</i> , 2008, 9, .	2.5	2
102	Insights Into Exhumation and Mantle Hydration Processes at the Deep Galicia Margin From a 3D Highâ€Resolution Seismic Velocity Model. <i>Journal of Geophysical Research: Solid Earth</i> , 2022, 127, .	3.4	1
103	Characterization of thermohaline staircases in the Tyrrhenian Sea using stochastic heterogeneity mapping. <i>Proceedings of Meetings on Acoustics</i> , 2013, , .	0.3	0
104	Relation between the Subducting Plate and Seismicity Associated with the Great 1964 Alaska Earthquake. , 1999, , 575-591.		0