Marc-Andre Gutscher

List of Publications by Year
in descending order

86	6,251	53794 45	66911 78
papers	citations	h-index	g-index

87	87	87	4719
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Geodynamics of flat subduction: Seismicity and tomographic constraints from the Andean margin. Tectonics, 2000, 19, 814-833.	2.8	573
2	Can slab melting be caused by flat subduction?. Geology, 2000, 28, 535.	4.4	482
3	Evidence for active subduction beneath Gibraltar. Geology, 2002, 30, 1071.	4.4	423
4	Tectonic segmentation of the North Andean margin: impact of the Carnegie Ridge collision. Earth and Planetary Science Letters, 1999, 168, 255-270.	4.4	325
5	Submarine fault scarps in the Sea of Marmara pull-apart (North Anatolian Fault): Implications for seismic hazard in Istanbul. Geochemistry, Geophysics, Geosystems, 2005, 6, .	2.5	226
6	The â€œlost inca plateauâ€• cause of flat subduction beneath peru?. Earth and Planetary Science Letters, 1999, 171, 335-341.	4.4	175
7	Cyclical behavior of thrust wedges: Insights from high basal friction sandbox experiments. Geology, 1996, 24, 135.	4.4	161
8	Andean subduction styles and their effect on thermal structure and interplate coupling. Journal of South American Earth Sciences, 2002, 15, 3-10.	1.4	148
9	Magmatic response to early aseismic ridge subduction: the Ecuadorian margin case (South America). Earth and Planetary Science Letters, 2003, 205, 123-138.	4.4	144
10	Episodic imbricate thrusting and underthrusting: Analog experiments and mechanical analysis applied to the Alaskan Accretionary Wedge. Journal of Geophysical Research, 1998, 103, 10161-10176.	3.3	129
11	Deep crustal structure of the Rhine Graben from dekorp-ecors seismic reflection data: A summary. Tectonophysics, 1992, 208, 139-147.	2.2	128
12	Are subduction zones invading the Atlantic? Evidence from the southwest Iberia margin. Geology, 2013, 41, 839-842.	4.4	128
13	Material transfer in accretionary wedges from analysis of a systematic series of analog experiments. Journal of Structural Geology, 1998, 20, 407-416.	2.3	123
14	Are rupture zone limits of great subduction earthquakes controlled by upper plate structures? Evidence from multichannel seismic reflection data acquired across the northern Ecuador-southwest Colombia margin. Journal of Geophysical Research, 2004, 109, .	3.3	114
15	The Gibraltar subduction: A decade of new geophysical data. Tectonophysics, 2012, 574-575, 72-91.	2.2	109
16	Seismic evidence for the presence of Jurassic oceanic crust in the central Gulf of Cadiz (SW Iberian) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 5	4.4	106
17	GEOSCIENCE: What Caused the Great Lisbon Earthquake?. Science, 2004, 305, 1247-1248.	12.6	99
18	The Gibraltar Arc seismogenic zone (part 2): Constraints on a shallow east dipping fault plane source for the 1755 Lisbon earthquake provided by tsunami modeling and seismic intensity. Tectonophysics, 2006, 426, 153-166.	2.2	95

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19	Late Quaternary co-seismic sedimentation in the Sea of Marmara's deep basins. Sedimentary Geology, 2007, 199, 65-89.	2.1	92
20	The crustal structure of the NW Moroccan continental margin from wide-angle and reflection seismic data. Geophysical Journal International, 2004, 159, 117-128.	2.4	91
21	Crustal-scale structure of the southern Rhinegraben from ECORS-DEKORP seismic reflection data. Geology, 1991, 19, 758.	4.4	87
22	Seismic structure of the Carnegie ridge and the nature of the GalÃ¡pagos hotspot. Geophysical Journal International, 2005, 161, 763-788.	2.4	82
23	Tectonic expression of an active slab tear from highâ€resolution seismic and bathymetric data offshore Sicily (Ionian Sea). Tectonics, 2016, 35, 39-54.	2.8	82
24	Mechanical decoupling and basal duplex formation observed in sandbox experiments with application to the Western Mediterranean Ridge accretionary complex. Marine Geology, 2002, 186, 29-42.	2.1	75
25	Focal mechanisms for subâ€crustal earthquakes in the Gulf of Cadiz from a dense OBS deployment. Geophysical Research Letters, 2010, 37, .	4.0	75
26	Propagation of a lithospheric tear fault (STEP) through the western boundary of the Calabrian accretionary wedge offshore eastern Sicily (Southern Italy). Tectonophysics, 2013, 602, 141-152.	2.2	74
27	The Gibraltar Arc seismogenic zone (part 1): Constraints on a shallow east dipping fault plane source for the 1755 Lisbon earthquake provided by seismic data, gravity and thermal modeling. Tectonophysics, 2006, 426, 135-152.	2.2	73
28	Active tectonics of the Calabrian subduction revealed by new multi-beam bathymetric data and high-resolution seismic profiles in the Ionian Sea (Central Mediterranean). Earth and Planetary Science Letters, 2017, 461, 61-72.	4.4	73
29	A deep reflection seismic line across the Northern Rhine Graben. Earth and Planetary Science Letters, 1991, 104, 140-150.	4.4	71
30	Seismic evidence of exhumed mantle rock basement at the Gorringe Bank and the adjacent Horseshoe and Tagus abyssal plains (SW Iberia). Earth and Planetary Science Letters, 2013, 365, 120-131.	4.4	71
31	Source of the 1693 Catania earthquake and tsunami (southern Italy): New evidence from tsunami modeling of a locked subduction fault plane. Geophysical Research Letters, 2006, 33, .	4.0	70
32	Thermal models of flat subduction and the rupture zone of great subduction earthquakes. Journal of Geophysical Research, 2003, 108, ESE 2-1-ESE 2-16.	3.3	69
33	Impact of lower plate structure on upper plate deformation at the NW Sumatran convergent margin from seafloor morphology. Earth and Planetary Science Letters, 2008, 275, 201-210.	4.4	67
34	Development of the accretionary prism along Peru and material flux after subduction of Nazca Ridge. Tectonics, 1996, 15, 19-33.	2.8	64
35	Non-Coulomb wedges, wrong-way thrusting, and natural hazards in Cascadia. Geology, 2001, 29, 379.	4.4	63
36	Limits of the seismogenic zone in the epicentral region of the 26 December 2004 great Sumatraâ€Andaman earthquake: Results from seismic refraction and wideâ€angle reflection surveys and thermal modeling. Journal of Geophysical Research, 2010, 115, .	3.3	57

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37	Thrustâ€“wrench interference tectonics in the Gulf of Cadiz (Africaâ€“Iberia plate boundary in the) Tj ETQq1 1 0.784314 rgBT /Overlo	2.1	56
38	Lithospheric cross sections of the European Cenozoic rift system. Tectonophysics, 1992, 208, 113-138.	2.2	54
39	Deep structure, recent deformation and analog modeling of the Gulf of Cadiz accretionary wedge: Implications for the 1755 Lisbon earthquake. Tectonophysics, 2009, 475, 85-97.	2.2	53
40	Mass and fluid flux during accretion at the Alaskan margin. Bulletin of the Geological Society of America, 1998, 110, 468-482.	3.3	51
41	The size of plume heterogeneities constrained by Marquesas isotopic stripes. Geochemistry, Geophysics, Geosystems, 2012, 13, .	2.5	50
42	Evidence of the Zanclean megaflood in the eastern Mediterranean Basin. Scientific Reports, 2018, 8, 1078.	3.3	49
43	A Miocene tectonic inversion in the Ionian Sea (central Mediterranean): Evidence from multichannel seismic data. Journal of Geophysical Research, 2011, 116, .	3.3	48
44	Opening of the central Atlantic Ocean: Implications for geometric rifting and asymmetric initial seafloor spreading after continental breakup. Tectonics, 2017, 36, 1129-1150.	2.8	48
45	Tectonic shortening and gravitational spreading in the Gulf of Cadiz accretionary wedge: Observations from multi-beam bathymetry and seismic profiling. Marine and Petroleum Geology, 2009, 26, 647-659.	3.3	47
46	High-resolution imagery of active faulting offshore Al Hoceima, Northern Morocco. Tectonophysics, 2014, 632, 160-166.	2.2	46
47	Marine Transform Faults and Fracture Zones: A Joint Perspective Integrating Seismicity, Fluid Flow and Life. Frontiers in Earth Science, 2019, 7, .	1.8	46
48	Megathrust earthquakes can nucleate in the forearc mantle: Evidence from the 2004 Sumatra event. Geology, 2009, 37, 659-662.	4.4	45
49	Can slab melting be caused by flat subduction?. Geology, 2000, 28, 535-538.	4.4	44
50	Crustal Structure of the Ionian Basin and Eastern Sicily Margin: Results From a Wideâ€Angle Seismic Survey. Journal of Geophysical Research: Solid Earth, 2018, 123, 2090-2114.	3.4	41
51	Slab melting and slab melt metasomatism in the Northern Andean Volcanic Zone : adakites and high-Mg andesites from Pichincha volcano (Ecuador). Bulletin - Societie Geologique De France, 2002, 173, 195-206.	2.2	33
52	Fields of multi-kilometer scale sub-circular depressions in the Carnegie Ridge sedimentary blanket: Effect of underwater carbonate dissolution?. Marine Geology, 2005, 216, 205-219.	2.1	32
53	Two-stage growth of the Calabrian accretionary wedge in the Ionian Sea (Central Mediterranean): Constraints from depthâ€migrated multichannel seismic data. Marine Geology, 2012, 326-328, 28-45.	2.1	32
54	Crustal structure variations along the NW-African continental margin: A comparison of new and existing models from wide-angle and reflection seismic data. Tectonophysics, 2016, 674, 227-252.	2.2	30

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55	Transtensional basins in the Western Sunda Strait. Geophysical Research Letters, 2000, 27, 3545-3548.	4.0	29
56	Crustal structure and dynamics in the Rhine Graben and the Alpine foreland. Geophysical Journal International, 1995, 122, 617-636.	2.4	26
57	Deep crustal structure of the Tuamotu plateau and Tahiti (French Polynesia) based on seismic refraction data. Geophysical Research Letters, 2002, 29, 1-1-1-4.	4.0	25
58	The Cenozoic tectonostratigraphic evolution of the Barracuda Ridge and Tiburon Rise, at the western end of the North Americaâ€“South America plate boundary zone. Marine Geology, 2012, 303-306, 154-171.	2.1	24
59	Geomorphic evolution of the Malta Escarpment and implications for the Messinian evaporative drawdown in the eastern Mediterranean Sea. Geomorphology, 2019, 327, 264-283.	2.6	24
60	Great Earthquakes in Slow-Subduction, Low-Taper Margins. Frontiers in Earth Sciences, 2009, , 119-133.	0.1	24
61	Scraped by flat-slab subduction. Nature Geoscience, 2018, 11, 890-891.	12.9	20
62	Seismic reflection imaging of shallow oceanographic structures. Journal of Geophysical Research: Oceans, 2013, 118, 2329-2344.	2.6	19
63	Ionian Abyssal Plain: a window into the Tethys oceanic lithosphere. Solid Earth, 2019, 10, 447-462.	2.8	19
64	Origin and chronology of the Augias deposit in the Ionian Sea (Central Mediterranean Sea), based on new regional sedimentological data. Marine Geology, 2017, 384, 199-213.	2.1	18
65	An Andean model of interplate coupling and strain partitioning applied to the flat subduction zone of SW Japan (Nankai Trough). Tectonophysics, 2001, 333, 95-109.	2.2	17
66	Detecting and characterizing mesoscale and submesoscale structures of Mediterranean water from joint seismic and hydrographic measurements in the Gulf of Cadiz. Geophysical Research Letters, 2010, 37, .	4.0	15
67	Deformation Pattern of the Northern Sector of the Malta Escarpment (Offshore SE Sicily, Italy): Fault Dimension, Slip Prediction, and Seismotectonic Implications. Frontiers in Earth Science, 2021, 8, .	1.8	15
68	Seismic stratigraphy of the NW Moroccan Atlantic continental shelf and Quaternary deformation at the offshore termination of the southern Rif front. Comptes Rendus - Geoscience, 2010, 342, 731-740.	1.2	14
69	Recent uplift of the Atlantic Atlas (offshore West Morocco): Tectonic arch and submarine terraces. Tectonophysics, 2017, 706-707, 46-58.	2.2	14
70	3D architecture of Quaternary sediment along the NW Atlantic Moroccan Rharb continental shelf: A stratal pattern under the dual control of tectonics and climatic variations. Marine and Petroleum Geology, 2014, 49, 129-142.	3.3	13
71	The Alpine Orogeny in the West and Southwest Iberia Margins. Regional Geology Reviews, 2019, , 487-505.	1.2	13
72	Destruction of Atlantis by a great earthquake and tsunami? A geological analysis of the Spartel Bank hypothesis. Geology, 2005, 33, 685.	4.4	13

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73	Subduction beneath Gibraltar? Recent studies provide answers. Eos, 2012, 93, 133-134.	0.1	11
74	A single-stage megaflood at the termination of the Messinian salinity crisis: Geophysical and modelling evidence from the eastern Mediterranean Basin. Marine Geology, 2020, 430, 106337.	2.1	11
75	Thermal modeling of the SW Ryukyu forearc (Taiwan): Implications for the seismogenic zone and the age of the subducting Philippine Sea Plate (Huatung Basin). Tectonophysics, 2016, 692, 131-142.	2.2	10
76	Gravity interpretation along seismic reflection profile DEKORP 9-N (northern Rhine Graben). Terra Nova, 1991, 3, 166-174.	2.1	9
77	How wide is the seismogenic zone of the Lesser Antilles forearc?. Bulletin - Societie Geologique De France, 2013, 184, 47-59.	2.2	8
78	Strike-Slip Faulting in the Calabrian Accretionary Wedge: Using Analog Modeling to Test the Kinematic Boundary Conditions of Geodynamic Models. , 2019, , 321-337.		6
79	Assessing the rate of crustal extension by 2D sequential restoration analysis: A case study from the active portion of the Malta Escarpment. Basin Research, 2022, 34, 321-341.	2.7	6
80	Geometry of the Deep Calabrian Subduction (Central Mediterranean Sea) From Wideâ€Angle Seismic Data and 3â€Ð Gravity Modeling. Geochemistry, Geophysics, Geosystems, 2020, 21, .	2.5	5
81	Fiber optic monitoring of active faults at the seafloor: I the FOCUS project. Photoniques, 2019, , 32-37.	0.1	5
82	Reply to Comment by A. Argnani on â€œGeometry of the Deep Calabrian Subduction From Wideâ€Angle Seismic Data and 3â€Ð Gravity Modelingâ€• Geochemistry, Geophysics, Geosystems, 2020, 21, e2020GC009223.	2.5	4
83	Reply to comment on the article â€œPropagation of a lithospheric tear fault (STEP) through the western boundary of the Calabrian accretionary wedge offshore eastern Sicily (Southern Italy)â€•by Gallais et al., 2013 Tectonophysics. Tectonophysics, 2014, 610, 200-203.	2.2	3
84	Are subduction zones invading the Atlantic? Evidence from the southwest Iberia margin: REPLY. Geology, 2014, 42, e329-e329.	4.4	2
85	Reply to Comment by Fernando Marques (on Tectonophysics article â€œDeep structure, recent) Tj ETQq1 1 0.784314 rgBT /Overlock 1 485, 330-331.	2.2	0
86	Response: Commentary: Deformation Pattern of the Northern Sector of the Malta Escarpment (Offshore SE Sicily, Italy): Fault Dimension, Slip Prediction, and Seismotectonic Implications. Frontiers in Earth Science, 2022, 10, .	1.8	0