Giovanni Bertotti

List of Publications by Year
in descending order

118	4,168	76196	128067
papers	citations	40 h-index	60 g-index

124	124	124	2990
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	From rifting to drifting: tectonic evolution of the South-Alpine upper crust from the Triassic to the Early Cretaceous. Sedimentary Geology, 1993, 86, 53-76.	1.0	293
2	Tertiary tectonic evolution of the external East Carpathians (Romania). Tectonophysics, 2000, 316, 255-286.	0.9	145
3	Thermo-mechanical controls on the mode of continental collision in the SE Carpathians (Romania). Earth and Planetary Science Letters, 2004, 218, 57-76.	1.8	143
4	Largeâ€scale deformation in a locked collisional boundary: Interplay between subsidence and uplift, intraplate stress, and inherited lithospheric structure in the late stage of the SE Carpathians evolution. Tectonics, 2007, 26, .	1.3	120
5	Towards an astrochronological framework for the eastern Paratethys Mioâ€“Pliocene sedimentary sequences of the FocÅŸani basin (Romania). Earth and Planetary Science Letters, 2004, 227, 231-247.	1.8	117
6	Subsidence analysis and tectonic evolution of the external Carpathianâ€“Moesian Platform region during Neogene times. Sedimentary Geology, 2003, 156, 71-94.	1.0	105
7	Architecture of the FocÅŸani Depression: A 13 km deep basin in the Carpathians bend zone (Romania). Tectonics, 2003, 22, n/a-n/a.	1.3	100
8	The impact of different aperture distribution models and critical stress criteria on equivalent permeability in fractured rocks. Journal of Geophysical Research: Solid Earth, 2016, 121, 4045-4063.	1.4	83
9	An integrated workflow for stress and flow modelling using outcrop-derived discrete fracture networks. Computers and Geosciences, 2017, 103, 21-35.	2.0	82
10	Multiscale fracture network characterization and impact on flow: A case study on the Latemar carbonate platform. Journal of Geophysical Research: Solid Earth, 2015, 120, 8197-8222.	1.4	81
11	Extension controls Quaternary tectonics, geomorphology and sedimentation of the N-Appennies foothills and adjacent Po Plain (Italy). Tectonophysics, 1997, 282, 291-301.	0.9	76
12	Unexpected Jurassic to Neogene vertical movements in â€˜stableâ€™ parts of NW Africa revealed by low temperature geochronology. Terra Nova, 2008, 20, 355-363.	0.9	76
13	Neogene to Quaternary sedimentary basins in the south Adriatic (Central Mediterranean): Foredeeps and lithospheric buckling. Tectonics, 2001, 20, 771-787.	1.3	73
14	Episodic exhumation in the Western Alps. Geology, 2003, 31, 601.	2.0	73
15	Tertiary tectonic evolution of the external South Carpathians and the adjacent Moesian platform (Romania). Tectonics, 1997, 16, 896-911.	1.3	70
16	Rifted margin formation in the south Tyrrhenian Sea: A high-resolution seismic profile across the north Sicily passive continental margin. Tectonics, 2000, 19, 241-257.	1.3	67
17	Barremian-lower Aptian Qishn Formation, Haushi-Huqf area, Oman: a new outcrop analogue for the Kharaib/Shuâ€™aiba reservoirs. Geoarabia, 2004, 9, 153-194.	1.6	66
18	Late orogenic vertical movements in the Carpathian Bend Zone - seismic constraints on the transition zone from orogen to foredeep. Basin Research, 2006, 18, 521-545.	1.3	64

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19	Thermo-mechanical modeling of the Tyrrhenian Sea: Lithospheric necking and kinematics of rifting. Tectonics, 1995, 14, 629-644.	1.3	63
20	Crustal thermal regime prior to, during, and after rifting: A geochronological and modeling study of the Mesozoic South Alpine rifted margin. Tectonics, 1999, 18, 185-200.	1.3	62
21	Tectonic history along the South Gabon Basin: Anomalous early post-rift subsidence. Marine and Petroleum Geology, 2007, 24, 151-172.	1.5	62
22	Pre-orogenic tectonics in the Umbriaâ€“Marche sector of the Afro-Adriatic continental margin. Tectonophysics, 1999, 315, 123-143.	0.9	59
23	Calibrating discrete fracture-network models with a carbonate three-dimensional outcrop fracture network: Implications for naturally fractured reservoir modeling. AAPG Bulletin, 2014, 98, 1351-1376.	0.7	59
24	Structural highs formation and their relationship to sedimentary basins in the north Sicily continental margin (southern Tyrrhenian Sea): Implication for the Drepano Thrust Front. Tectonophysics, 2005, 409, 1-18.	0.9	55
25	Postrift stress field inversion in the Potiguar Basin, Brazil â€“ Implications for petroleum systems and evolution of the equatorial margin of South America. Marine and Petroleum Geology, 2020, 111, 88-104.	1.5	54
26	The impact of in-situ stress and outcrop-based fracture geometry on hydraulic aperture and upscaled permeability in fractured reservoirs. Tectonophysics, 2016, 690, 63-75.	0.9	53
27	Deformation and metamorphism associated with crustal rifting: The Permian to Liassic evolution of the Lake Lugano-Lake Como area (Southern Alps). Tectonophysics, 1993, 226, 271-284.	0.9	52
28	DigiFract: A software and data model implementation for flexible acquisition and processing of fracture data from outcrops. Computers and Geosciences, 2013, 54, 326-336.	2.0	50
29	Vertical movements in and around the south-east Carpathian foredeep: lithospheric memory and stress field control. Terra Nova, 2003, 15, 299-305.	0.9	49
30	Multi-scale fracture network analysis from an outcrop analogue: A case study from the Cambro-Ordovician clastic succession in Petra, Jordan. Marine and Petroleum Geology, 2012, 38, 104-116.	1.5	49
31	Structural evolution of the Transylvanian Basin (Romania): a sedimentary basin in the bend zone of the Carpathians. Tectonophysics, 1997, 272, 249-268.	0.9	48
32	Thermomechanical evolution of the South Alpine rifted margin (North Italy): constraints on the strength of passive continental margins. Earth and Planetary Science Letters, 1997, 146, 181-193.	1.8	48
33	The influence of a stratified rheology on the flexural response of the lithosphere to (un)loading by extensional faulting. Geophysical Journal International, 1998, 134, 721-735.	1.0	48
34	Late Miocene to present exhumation in the Ligurian Alps (southwest Alps) with evidence for accelerated denudation during the Messinian salinity crisis. Geology, 2003, 31, 797.	2.0	48
35	Thermal effects of normal faulting during rifted basin formation, 1. A finite difference model. Tectonophysics, 1994, 240, 133-144.	0.9	47
36	Are stylolites fluid-flow efficient features?. Journal of Structural Geology, 2019, 125, 270-277.	1.0	46

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37	Dynamic link between the level of ductile crustal flow and style of normal faulting of brittle crust. Tectonophysics, 2000, 320, 195-218.	0.9	45
38	Post-Variscan evolution of the Anti-Atlas belt of Morocco constrained from low-temperature geochronology. International Journal of Earth Sciences, 2017, 106, 593-616.	0.9	45
39	Testing the preservation potential of early diagenetic dolomites as geochemical archives. Sedimentology, 2020, 67, 849-881.	1.6	45
40	Fracturing and fluidâ€flow during postâ€rift subsidence in carbonates of the JandaÃra Formation, Potiguar Basin, <scp>NE</scp> Brazil. Basin Research, 2017, 29, 836-853.	1.3	42
41	Role of the 3-D distributions of load and lithospheric strength in orogenic arcs: polystage subsidence in the Carpathians foredeep. Earth and Planetary Science Letters, 2004, 221, 163-180.	1.8	41
42	Oligocene to Present kilometres scale subsidence and exhumation of the Ligurian Alps and the Tertiary Piedmont Basin (NW Italy) revealed by apatite (U-Th)/He thermochronology: correlation with regional tectonics. Terra Nova, 2006, 18, 18-25.	0.9	41
43	Thermal effects of normal faulting during rifted basin formation, 2. The Lugano-Val Grande normal fault and the role of pre-existing thermal anomalies. Tectonophysics, 1994, 240, 145-157.	0.9	39
44	Fracturing and calcite cementation controlling fluid flow in the shallow-water carbonates of the JandaÃra Formation, Brazil. Marine and Petroleum Geology, 2017, 80, 382-393.	1.5	39
45	Post-rift vertical movements and horizontal deformations in the eastern margin of the Central Atlantic: Middle Jurassic to Early Cretaceous evolution of Morocco. International Journal of Earth Sciences, 2012, 101, 2151-2165.	0.9	38
46	Architecture and Neogene to Recent evolution of the western Calabrian continental margin: An upper plate perspective to the Ionian subduction system, central Mediterranean. Tectonics, 2010, 29, .	1.3	36
47	Inter-well scale natural fracture geometry and permeability variations in low-deformation carbonate rocks. Journal of Structural Geology, 2017, 97, 23-36.	1.0	36
48	Pattern and rate of post-20Âka vertical tectonic motion around the Capo Vaticano Promontory (W) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 5 85-98.	0.7	35
49	A geometrically based method for predicting stress-induced fracture aperture and flow in discrete fracture networks. AAPG Bulletin, 2016, 100, 1075-1097.	0.7	34
50	Kinematic and thermal evolution of the Moroccan rifted continental margin: Doukkala-High Atlas transect. Tectonics, 2010, 29, n/a-n/a.	1.3	32
51	The mechanical contrast between layers controls fracture containment in layered rocks. Journal of Structural Geology, 2019, 127, 103856.	1.0	30
52	A new methodology to train fracture network simulation using multiple-point statistics. Solid Earth, 2019, 10, 537-559.	1.2	27
53	Structure of the Gabon Margin from integrated seismic reflection and gravity data. Tectonophysics, 2011, 506, 31-45.	0.9	26
54	Toward a quantitative definition of mechanical units: New techniques and results from an outcropping deep-water turbidite succession (Tanqua-Karoo Basin, South Africa). AAPG Bulletin, 2007, 91, 1085-1098.	0.7	24

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55	Linking natural fractures to karst cave development: a case study combining drone imagery, a natural cave network and numerical modelling. Petroleum Geoscience, 2019, 25, 454-469.	0.9	24
56	Analysing the limitations of the dual-porosity response during well tests in naturally fractured reservoirs. Petroleum Geoscience, 2019, 25, 30-49.	0.9	24
57	The geology of vertical movements of the lithosphere: An overview. Tectonophysics, 2009, 475, 1-8.	0.9	23
58	Flow pathways in multiple-direction fold hinges: Implications for fractured and karstified carbonate reservoirs. Journal of Structural Geology, 2021, 146, 104324.	1.0	23
59	Flexural response of the Venetian foreland to the Southalpine tectonics along the TRANSALP profile. Terra Nova, 2004, 16, 273-280.	0.9	22
60	Tectono-stratigraphic modelling of the North Sicily continental margin (southern Tyrrhenian Sea). Tectonophysics, 2004, 384, 257-273.	0.9	21
61	Rift fault geometry and evolution in the Cretaceous Potiguar Basin (NE Brazil) based on fault growth models. Journal of South American Earth Sciences, 2016, 71, 96-107.	0.6	21
62	Lowâ€temperature thermochronology as a control on vertical movements for semiâ€quantitative sourceâ€toâ€sink analysis: A case study for the Permian to Neogene of Morocco and surroundings. Basin Research, 2021, 33, 1337-1383.	1.3	21
63	Tectono-stratigraphic modelling of the Sardinian margin of the Tyrrhenian Sea. Tectonophysics, 1995, 252, 269-284.	0.9	20
64	Lithospheric weakening during â€œretroforelandâ€•basin formation: Tectonic evolution of the central South Alpine foredeep. Tectonics, 1998, 17, 131-142.	1.3	20
65	The effects of a lateral variation in lithospheric strength on foredeep evolution: Implications for the East Carpathian foredeep. Tectonophysics, 2006, 421, 251-267.	0.9	18
66	Late-orogenic vertical movements within the arc of the SW Alps and Ligurian Alps. Tectonophysics, 2009, 475, 117-127.	0.9	18
67	Fracture-network analysis of the Latemar Platform (northern Italy): integrating outcrop studies to constrain the hydraulic properties of fractures in reservoir models. Petroleum Geoscience, 2014, 20, 79-92.	0.9	18
68	An automated fracture trace detection technique using the complex shearlet transform. Solid Earth, 2019, 10, 2137-2166.	1.2	18
69	Distributed fracturing affecting isolated carbonate platforms, the Latemar Platform Natural Laboratory (Dolomites, North Italy). Marine and Petroleum Geology, 2013, 40, 69-84.	1.5	17
70	The Sidi Ifni transect across the rifted margin of Morocco (Central Atlantic): Vertical movements constrained by low-temperature thermochronology. Journal of African Earth Sciences, 2018, 141, 22-32.	0.9	17
71	Lateral variations of thermo-mechanical properties in the Tyrrhenianâ€“northern Apennine region. Tectonophysics, 1998, 300, 143-158.	0.9	16
72	Burial and temperature evolution in thrust belt systems: Sedimentary and thrust sheet loading in the SE Canadian Cordillera. Tectonics, 2009, 28, .	1.3	16

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73	Intraplate uplift: new constraints on the Hoggar dome from the Illizi basin (Algeria). Basin Research, 2017, 29, 377-393.	1.3	16
74	Quantitative analysis of the tectonic subsidence in the Potiguar Basin (NE Brazil). Journal of Geodynamics, 2018, 117, 60-74.	0.7	16
75	Mechanical controls on horizontal stresses and fracture behaviour in layered rocks: A numerical sensitivity analysis. Journal of Structural Geology, 2020, 130, 103907.	1.0	16
76	Probing tectonic topography in the aftermath of continental convergence in central Europe. Eos, 2003, 84, 89.	0.1	15
77	Rifting and preâ€rift lithosphere variability in the <scp>O</scp>rphan <scp>B</scp>asin, <scp>N</scp>ewfoundland margin, Eastern <scp>C</scp>anada. Basin Research, 2015, 27, 367-386.	1.3	14
78	Mechanical Factors Controlling the Development of Orthogonal and Nested Fracture Network Geometries. Rock Mechanics and Rock Engineering, 2018, 51, 3455-3469.	2.6	14
79	Sedimentologic and reservoir characteristics under a tectono-sequence stratigraphic framework: A case study from the Early Cretaceous, upper Abu Gabra sandstones, Sufyan Sub-basin, Muglad Basin, Sudan. Journal of African Earth Sciences, 2018, 142, 22-43.	0.9	13
80	Natural fault and fracture network characterization for the southern Ekofisk field: A case study integrating seismic attribute analysis with image log interpretation. Journal of Structural Geology, 2020, 141, 104197.	1.0	13
81	Subsidence, stress regime and rotation(s) of a tectonically active sedimentary basin within the western Alpine Orogen: the Tertiary Piedmont Basin (Alpine domain, NW Italy). Geological Society Special Publication, 2003, 208, 205-227.	0.8	12
82	3â€D Architecture and Plioâ€Quaternary Evolution of the Paola Basin: Insights Into the Forearc of the Tyrrhenianâ€Ionian Subduction System. Tectonics, 2020, 39, e2019TC005898.	1.3	12
83	Large-scale natural fracture network patterns: Insights from automated mapping in the Lilstock (Bristol Channel) limestone outcrops. Journal of Structural Geology, 2021, 150, 104405.	1.0	12
84	Mapping the fracture network in the Lilstock pavement, Bristol Channel, UK: manual versus automatic. Solid Earth, 2020, 11, 1773-1802.	1.2	12
85	The Transylvanian basin, transfer zone between coeval extending and contracting regions: Inferences on the relative importance of slab pull and rift push in arc-back arc systems. Tectonics, 2002, 21, 2-1-2-18.	1.3	11
86	Detecting provenance variations and cooling patterns within the western Alpine orogen through ⁴⁰Ar/³⁹Ar geochronology on detrital sediments: The Tertiary Piedmont Basin, northwest Italy. , 2004, , .		11
87	FEM analysis of deformation localization mechanisms in a 3-D fractured medium under rotating compressive stress orientations. Tectonophysics, 2013, 593, 95-110.	0.9	11
88	Monoclinal flexure of an orogenic plateau margin during subduction, south Turkey. Basin Research, 2019, 31, 709-727.	1.3	11
89	New Evidence of â€˜Anomalous' Vertical Movements along the Hinterland of the Atlantic NW African Margin. Journal of Geophysical Research: Solid Earth, 2019, 124, 13333-13353.	1.4	11
90	The morphology of a Messinian valley and its hinterland (Ventimiglia, NW Italy): a Miocene to Pliocene reconstruction. Geological Journal, 2006, 41, 465-480.	0.6	10

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91	An Integrated Multiscale Method for the Characterisation of Active Faults in Offshore Areas. The Case of Santâ€™Eufemia Gulf (Offshore Calabria, Italy). Frontiers in Earth Science, 2021, 9, .	0.8	10
92	Silicification, flow pathways, and deep-seated hypogene dissolution controlled by structural and stratigraphic variability in a carbonate-siliciclastic sequence (Brazil). Marine and Petroleum Geology, 2022, 139, 105611.	1.5	10
93	An Advanced Discrete Fracture Methodology for Fast, Robust, and Accurate Simulation of Energy Production From Complex Fracture Networks. Water Resources Research, 2022, 58, .	1.7	9
94	Mesozoic and Cenozoic thermal history of the Western Reguibat Shield (West African Craton). Terra Nova, 2018, 30, 135-145.	0.9	8
95	Modeling of multiphase mass and heat transfer in fractured high-enthalpy geothermal systems with advanced discrete fracture methodology. Advances in Water Resources, 2021, 154, 103985.	1.7	8
96	Subsidence, deformation, thermal and mechanical evolution of the Mesozoic South Alpine rifted margin: an analogue for Atlantic-type margins. Geological Society Special Publication, 2001, 187, 125-141.	0.8	7
97	Stratigraphic and regional distribution of fractures in Barremianâ€“Aptian carbonate rocks of Eastern Oman: outcrop data and their extrapolation to Interior Oman hydrocarbon reservoirs. International Journal of Earth Sciences, 2005, 94, 447-461.	0.9	7
98	Natural fracture system of the Cambro-Permian Wajid Group, Wadi Al-Dawasir, SW Saudi Arabia. Journal of Petroleum Science and Engineering, 2019, 175, 140-158.	2.1	7
99	Anticline growth by shortening during crustal exhumation of the Moroccan Atlantic margin. Journal of Structural Geology, 2020, 140, 104125.	1.0	7
100	The impact of natural fractures on heat extraction from tight Triassic sandstones in the West Netherlands Basin: a case study combining well, seismic and numerical data. Geologie En Mijnbouw/Netherlands Journal of Geosciences, 2021, 100, .	0.6	7
101	Morphology and topology of dolostone lithons in the regional Carboneras Fault Zone, Southern Spain. Journal of Structural Geology, 2020, 137, 104073.	1.0	7
102	The Morro Vermelho hypogenic karst system (Brazil): Stratigraphy, fractures, and flow in a carbonate strike-slip fault zone with implications for carbonate reservoirs. AAPG Bulletin, 2020, 104, 2029-2050.	0.7	7
103	Kinematics of the SE Canadian Fold and Thrust Belt: Implications for the Thermal and Organic Maturation History. , 2007, , 179-202.		6
104	Using Outcrop Data for Geological Well Test Modelling in Fractured Reservoirs. , 2015, , .		6
105	Syn-depositional Mesozoic siliciclastic pathways on the Moroccan Atlantic margin linked to evaporite mobilisation. Marine and Petroleum Geology, 2021, 128, 105018.	1.5	5
106	Investigating spatial heterogeneity within fracture networks using hierarchical clustering and graph distance metrics. Solid Earth, 2021, 12, 2159-2209.	1.2	5
107	Summary of the AAPGâ€“SPEâ€“SEG Hedberg Research Conference on â€œFundamental Controls on Flow in Carbonatesâ€• AAPG Bulletin, 2013, 97, 533-552.	0.7	4
108	Assessing the Validity and Limitations of Dual-porosity Models Using Geological Well Testing for Fractured Formations. , 2016, , .		4

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109	Fracture distribution along an Upper Jurassic carbonate ramp, NE Spain. Marine and Petroleum Geology, 2016, 70, 201-221.	1.5	4
110	Predicting Multi-scale Deformation and Fluid Flow Patterns in Folds Using 3D Outcrop Models and Mechanical Modelling. , 2014, , .		3
111	Comment on: â€œUplift and contractional deformation along a segmented strike-slip fault system: the Gargano Promontory, southern Italyâ€•by C.M. Brankman and A. Aydin [Journal of Structural Geology, 26, 807â€“824]. Journal of Structural Geology, 2004, 26, 2325-2326.	1.0	2
112	Outcropping Analogs and Multiscale Fracture Patterns in the JandaÃra Formation. , 2013, , .		2
113	Coupled Stress-fluid Pressure Modelling of Stimulated Rock Volume in Shale - Impact of Natural Fractures and Beef. , 2016, , .		2
114	Effect of perturbations on array forming. , 2003, , .		1
115	A Geologically Consistent Permeability Model of Fractured Folded Carbonate Reservoirs: Lessons from Outcropping Analogue. , 2013, , .		1
116	Geology of Mode I, Hybrid and Mode II Fractures - What Do we Really Know?. , 2016, , .		1
117	Discussion of â€˜Velocity description of deformation. Paper 3: the effects of temperature dependent rheology on extensional basin architectureâ€™ by Willacy, Waltham and McClay (1995). Marine and Petroleum Geology, 1996, 13, 847.	1.5	0
118	The Upper Jurassic-lower Cretaceous Siliciclastic System in the Morocco Offshore - Prevenance, Transport and Deposition. , 2015, , .		0