

# Stephen E Laubach

## List of Publications by Year in descending order

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87  
papers

6,892  
citations

81900

39  
h-index

69250

77  
g-index

90  
all docs

90  
docs citations

90  
times ranked

3142  
citing authors

#	ARTICLE	IF	CITATIONS
1	Mechanisms for the Generation of Complex Fracture Networks: Observations From Slant Core, Analog Models, and Outcrop. <i>Frontiers in Earth Science</i> , 2022, 10, .	1.8	6
2	Fold-Related Fracture Distribution in Neogene, Triassic, and Jurassic Sandstone Outcrops, Northern Margin of the Tarim Basin, China: Guides to Deformation in Ultradeep Tight Sandstone Reservoirs. <i>Lithosphere</i> , 2021, 2021, .	1.4	3
3	Value-of-Information Analysis of a Fracture Prediction Method. <i>SPE Reservoir Evaluation and Engineering</i> , 2020, 23, 0811-0823.	1.8	10
4	A history of pore water oxygen isotope evolution in the Cretaceous Travis Peak Formation in East Texas. <i>Bulletin of the Geological Society of America</i> , 2020, 132, 1626-1638.	3.3	4
5	The nature and origins of decametre-scale porosity in Ordovician carbonate rocks, Halahatang oilfield, Tarim Basin, China. <i>Journal of the Geological Society</i> , 2020, 177, 1074-1091.	2.1	25
6	Fracture, Dissolution, and Cementation Events in Ordovician Carbonate Reservoirs, Tarim Basin, NW China. <i>Geofluids</i> , 2020, 2020, 1-28.	0.7	22
7	The Role of Chemistry in Fracture Pattern Development and Opportunities to Advance Interpretations of Geological Materials. <i>Reviews of Geophysics</i> , 2019, 57, 1065-1111.	23.0	182
8	Degradation of fracture porosity in sandstone by carbonate cement, Piceance Basin, Colorado, USA. <i>Petroleum Geoscience</i> , 2019, 25, 354-370.	1.5	16
9	Quantified fracture (joint) clustering in Archean basement, Wyoming: application of the normalized correlation count method. <i>Petroleum Geoscience</i> , 2019, 25, 415-428.	1.5	39
10	Outcrops as guides to subsurface natural fractures: Example from the Nikanassin Formation tight-gas sandstone, Grande Cache, Alberta foothills, Canada. <i>Marine and Petroleum Geology</i> , 2019, 103, 255-275.	3.3	43
11	Microstructural controls on elastic anisotropy of finely laminated Mancos Shale. <i>Geophysical Journal International</i> , 2019, 216, 991-1004.	2.4	16
12	Quantifying static and dynamic stiffness anisotropy and nonlinearity in finely laminated shales: Experimental measurement and modeling. <i>Geophysics</i> , 2019, 84, MR25-MR36.	2.6	9
13	Editorial: Spatial arrangement of faults and opening-mode fractures. <i>Journal of Structural Geology</i> , 2018, 108, 1.	2.3	1
14	Microfracture spacing distributions and the evolution of fracture patterns in sandstones. <i>Journal of Structural Geology</i> , 2018, 108, 66-79.	2.3	50
15	Quantifying opening-mode fracture spatial organization in horizontal wellbore image logs, core and outcrop: Application to Upper Cretaceous Frontier Formation tight gas sandstones, USA. <i>Journal of Structural Geology</i> , 2018, 108, 137-156.	2.3	47
16	Correlation analysis of fracture arrangement in space. <i>Journal of Structural Geology</i> , 2018, 108, 16-33.	2.3	71
17	Spatial arrangement and size distribution of normal faults, Buckskin detachment upper plate, Western Arizona. <i>Journal of Structural Geology</i> , 2018, 108, 230-242.	2.3	7
18	Spatial arrangement of faults and opening-mode fractures. <i>Journal of Structural Geology</i> , 2018, 108, 2-15.	2.3	116

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19	Chemical-Mechanical Feedback and Fracture Size and Spacing Patterns. , 2018, , .		0
20	Hydraulic Fractures in Core From Stimulated Reservoirs: Core Fracture Description of HFTS Slant Core, Midland Basin, West Texas. , 2018, , .		87
21	Opening-mode fracture systems: insights from recent fluid inclusion microthermometry studies of crack-seal fracture cements. Geological Society Special Publication, 2017, 458, 257-272.	1.3	16
22	New type of kinematic indicator in bed-parallel veins, Late Jurassic–Early Cretaceous Vaca Muerta Formation, Argentina: E-W shortening during Late Cretaceous vein opening. Journal of Structural Geology, 2017, 104, 31-47.	2.3	40
23	Microfractures in bed-parallel veins (beef) as predictors of vertical macrofractures in shale: Vaca Muerta Formation, Agrio Fold-and-Thrust Belt, Argentina. Journal of South American Earth Sciences, 2017, 79, 152-169.	1.4	28
24	Quartz c-axis orientation patterns in fracture cement as a measure of fracture opening rate and a validation tool for fracture pattern models. , 2016, 12, 400-438.		5
25	Origin and timing of Dauphinite twins in quartz cement in fractured sandstones from diagenetic environments: Insight from fluid inclusions. Tectonophysics, 2016, 687, 195-209.	2.2	16
26	Fracture porosity creation and persistence in a basement-involved Laramide fold, Upper Cretaceous Frontier Formation, Green River Basin, USA. Geological Magazine, 2016, 153, 887-910.	1.5	58
27	Syn- and postkinematic cement textures in fractured carbonate rocks: Insights from advanced cathodoluminescence imaging. Tectonophysics, 2016, 690, 190-205.	2.2	39
28	Insights into rates of fracture growth and sealing from a model for quartz cementation in fractured sandstones. Bulletin of the Geological Society of America, 2015, 127, 516-538.	3.3	162
29	Fracturing and fluid flow in a sub-dolomitic sandstone; or, a leak in the basement. Journal of the Geological Society, 2015, 172, 428-442.	2.1	32
30	Natural hydraulic fracturing of tight-gas sandstone reservoirs, Piceance Basin, Colorado. Bulletin of the Geological Society of America, 2015, 127, 61-75.	3.3	90
31	Non-linear growth kinematics of opening-mode fractures. Journal of Structural Geology, 2015, 74, 31-44.	2.3	24
32	A universal power-law scaling exponent for fracture apertures in sandstones. Bulletin of the Geological Society of America, 2014, 126, 1340-1362.	3.3	103
33	Natural Fractures in shale: A review and new observations. AAPG Bulletin, 2014, 98, 2165-2216.	1.5	645
34	Fault core and damage zone fracture attributes vary along strike owing to interaction of fracture growth, quartz accumulation, and differing sandstone composition. Journal of Structural Geology, 2014, 68, 207-226.	2.3	66
35	Microfractures: A review. Journal of Structural Geology, 2014, 69, 377-394.	2.3	301
36	Fracture-aperture size–frequency, spatial distribution, and growth processes in strata-bounded and non-strata-bounded fractures, Cambrian Mesabi Group, NW Argentina. Journal of Structural Geology, 2013, 54, 54-71.	2.3	135

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37	Using Structural Diagenesis to Infer the Timing of Natural Fractures in the Marcellus Shale. , 2013, , .		14
38	Timing and Processes of Fracture Formation in Tight-Gas Sandstone Reservoirs Using Fluid Inclusions. , 2013, , .		2
39	Fracture development and diagenesis of Torridon Group Applecross Formation, near An Teallach, NW Scotland: millennia of brittle deformation resilience?. Journal of the Geological Society, 2012, 169, 297-310.	2.1	48
40	Advances in carbonate exploration and reservoir analysis. Geological Society Special Publication, 2012, 370, 1-15.	1.3	67
41	Testing the basin-centered gas accumulation model using fluid inclusion observations: Southern Piceance Basin, Colorado. AAPG Bulletin, 2012, 96, 2297-2318.	1.5	101
42	Effects of diagenesis (cement precipitation) during fracture opening on fracture aperture-size scaling in carbonate rocks. Geological Society Special Publication, 2012, 370, 187-206.	1.3	27
43	Fracture abundance and patterns in the Subandean fold and thrust belt, Devonian Huamampampa Formation petroleum reservoirs and outcrops, Argentina and Bolivia. Marine and Petroleum Geology, 2012, 35, 201-218.	3.3	35
44	Prediction of lithofacies and reservoir quality using well logs, Late Cretaceous Williams Fork Formation, Mamm Creek field, Piceance Basin, Colorado. AAPG Bulletin, 2011, 95, 1699-1723.	1.5	101
45	Fracture size, frequency, and strain in the Cambrian Eriboll Formation sandstones, NW Scotland. Scottish Journal of Geology, 2011, 47, 45-56.	0.1	26
46	Modeling fracture porosity evolution in dolostone. Journal of Structural Geology, 2010, 32, 1201-1211.	2.3	92
47	Pure and shear-enhanced compaction bands in Aztec Sandstone. Journal of Structural Geology, 2010, 32, 1873-1886.	2.3	162
48	Structural diagenesis. Journal of Structural Geology, 2010, 32, 1866-1872.	2.3	141
49	Photograph of the month: Fracture with crack-seal texture and porosity, depth 6274m, Wyoming. Journal of Structural Geology, 2010, 32, 1865.	2.3	3
50	A 48 m.y. history of fracture opening, temperature, and fluid pressure: Cretaceous Travis Peak Formation, East Texas basin. Bulletin of the Geological Society of America, 2010, 122, 1081-1093.	3.3	174
51	Estimating natural fracture producibility in tight gas sandstones: Coupling diagenesis with geomechanical modeling. The Leading Edge, 2010, 29, 1494-1499.	0.7	21
52	Aperture-size scaling variations in a low-strain opening-mode fracture set, Cozzette Sandstone, Colorado. Journal of Structural Geology, 2009, 31, 707-718.	2.3	109
53	Mechanical and fracture stratigraphy. AAPG Bulletin, 2009, 93, 1413-1426.	1.5	306
54	Laurentian palaeostress trajectories and ephemeral fracture permeability, Cambrian Eriboll Formation sandstones west of the Moine Thrust Zone, NW Scotland. Journal of the Geological Society, 2009, 166, 349-362.	2.1	63

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55	Natural fracture characterization in tight gas sandstones: Integrating mechanics and diagenesis. AAPG Bulletin, 2009, 93, 1535-1549.	1.5	281
56	Combining diagenesis and mechanics to quantify fracture aperture distributions and fracture pattern permeability. Geological Society Special Publication, 2007, 270, 101-116.	1.3	42
57	Anisotropy and beyond: Geologic perspectives on geophysical prospecting for natural fractures. The Leading Edge, 2007, 26, 1106-1111.	0.7	16
58	OBTAINING FRACTURE INFORMATION FOR LOW-PERMEABILITY (TIGHT) GAS SANDSTONES FROM SIDEWALL CORES. Journal of Petroleum Geology, 2006, 29, 147-158.	1.5	35
59	Diagenesis in porosity evolution of opening-mode fractures, Middle Triassic to Lower Jurassic La Boca Formation, NE Mexico. Tectonophysics, 2006, 419, 75-97.	2.2	99
60	Rapid digital quantification of microfracture populations. Journal of Structural Geology, 2006, 28, 408-420.	2.3	47
61	A scale-independent approach to fracture intensity and average spacing measurement. AAPG Bulletin, 2006, 90, 193-208.	1.5	290
62	Using the Link Between Diagenesis and Fracturing to Accurately Predict, Characterize, and Model Fluid-Flow in Fractured Carbonate Rocks. , 2005, , .		7
63	Modeling Coupled Fracture-Matrix Fluid Flow in Geomechanically Simulated Fracture Networks. SPE Reservoir Evaluation and Engineering, 2005, 8, 300-309.	1.8	120
64	Predicting and characterizing fractures in dolostone reservoirs: using the link between diagenesis and fracturing. Geological Society Special Publication, 2004, 235, 177-192.	1.3	39
65	Coevolution of crack-seal texture and fracture porosity in sedimentary rocks: cathodoluminescence observations of regional fractures. Journal of Structural Geology, 2004, 26, 967-982.	2.3	194
66	Opening histories of fractures in sandstone. Geological Society Special Publication, 2004, 231, 1-9.	1.3	19
67	Are open fractures necessarily aligned with maximum horizontal stress?. Earth and Planetary Science Letters, 2004, 222, 191-195.	4.4	222
68	Practical approaches to identifying sealed and open fractures. AAPG Bulletin, 2003, 87, 561-579.	1.5	276
69	Brittle Deformation in Sandstone Diagenesis as Revealed by Scanned Cathodoluminescence Imaging with Application to Characterization of Fractured Reservoirs. , 2000, , 225-243.		38
70	Differential compaction of interbedded sandstone and coal. Geological Society Special Publication, 1999, 169, 51-60.	1.3	9
71	Oriented Drilled Sidewall Cores for Natural Fracture Evaluation. , 1999, , .		14
72	Characteristics and origins of coal cleat: A review. International Journal of Coal Geology, 1998, 35, 175-207.	5.0	649

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73	Integrating Wellbore Data and Geomechanical Modeling for Effective Characterization of Naturally Fractured Reservoirs. , 1998, , .		29
74	A Method to Detect Natural Fracture Strike in Sandstones. AAPG Bulletin, 1997, 81 (1997), .	1.5	31
75	Diagenetic controls on fracture permeability and sealing. International Journal of Rock Mechanics and Minings Sciences, 1997, 34, 204.e1-204.e11.	5.8	15
76	Natural Fractures in Sonora Canyon Sandstones, Sonora and Sawyer Fields, Sutton County, Texas. , 1993, , .		7
77	Fracture Patterns in Low-Permeability-Sandstone Gas Reservoir Rocks in the Rocky Mountain Region. , 1991, , .		26
78	Origin of arches in the northwestern Gulf of Mexico basin. Geology, 1990, 18, 595.	4.4	49
79	Case study of an extensive silicic lava: the Bracks Rhyolite, Trans-Pecos Texas. Journal of Volcanology and Geothermal Research, 1990, 43, 113-132.	2.1	39
80	Progressive deformation and superposed fabrics related to Cretaceous crustal underthrusting in western Arizona, U.S.A.. Journal of Structural Geology, 1989, 11, 735-749.	2.3	16
81	Paleostress directions from the preferred orientation of closed microfractures (fluid-inclusion) Tj ETQq1 1 0.784314 rgbT /Overlock 10	2.3	89
82	Early Mesozoic uplift in west-central Arizona and southeastern California. Geology, 1989, 17, 207.	4.4	20
83	Subsurface fractures and their relationship to stress history in East Texas basin sandstone. Tectonophysics, 1988, 156, 37-49.	2.2	121
84	Fracture Detection in Low-Permeability Reservoir Sandstone: A Comparison of BHTV and FMS Logs to Core. , 1988, , .		13
85	Coring-Induced Fractures: Indicators of Hydraulic Fracture Propagation in a Naturally Fractured Reservoir. , 1988, , .		14
86	Fractures Generated during Folding of the Palmerton Sandstone, Eastern Pennsylvania. Journal of Geology, 1988, 96, 495-503.	1.4	19
87	Fault patterns generated during extensional deformation of crystalline basement, NW Scotland. Geological Society Special Publication, 1987, 28, 495-499.	1.3	6