

# Jessica A Mcbeck

## List of Publications by Year in descending order

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33  
papers

476  
citations

686830

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752256

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43  
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43  
docs citations

43  
times ranked

363  
citing authors

#	ARTICLE	IF	CITATIONS
1	Predicting Fracture Network Development in Crystalline Rocks. <i>Pure and Applied Geophysics</i> , 2022, 179, 275-299.	0.8	6
2	Volumetric and shear strain localization throughout triaxial compression experiments on rocks. <i>Tectonophysics</i> , 2022, 822, 229181.	0.9	18
3	The Influence of Fracture Growth and Coalescence on the Energy Budget Leading to Failure. <i>Frontiers in Earth Science</i> , 2022, 10, .	0.8	2
4	4D Synchrotron X-ray Imaging of Grain Scale Deformation Mechanisms in a Seismogenic Gas Reservoir Sandstone During Axial Compaction. <i>Rock Mechanics and Rock Engineering</i> , 2022, 55, 4697-4715.	2.6	4
5	Predicting fault reactivation and macroscopic failure in discrete element method simulations of restraining and releasing step overs. <i>Earth and Planetary Science Letters</i> , 2022, 593, 117667.	1.8	3
6	Decrypting healed fault zones: how gouge production reduces the influence of fault roughness. <i>Geophysical Journal International</i> , 2021, 225, 759-774.	1.0	7
7	The competition between fracture nucleation, propagation, and coalescence in dry and water-saturated crystalline rock. <i>Solid Earth</i> , 2021, 12, 375-387.	1.2	13
8	How the force and fracture architectures develop within and around healed fault zones during biaxial loading toward macroscopic failure. <i>Journal of Structural Geology</i> , 2021, 147, 104329.	1.0	2
9	The influence of preexisting host rock damage on fault network localization. <i>Journal of Structural Geology</i> , 2021, 153, 104471.	1.0	6
10	Fracture Network Localization Preceding Catastrophic Failure in Triaxial Compression Experiments on Rocks. <i>Frontiers in Earth Science</i> , 2021, 9, .	0.8	10
11	Imaging strain localisation in porous andesite using digital volume correlation. <i>Journal of Volcanology and Geothermal Research</i> , 2020, 404, 107038.	0.8	14
12	Deformation Precursors to Catastrophic Failure in Rocks. <i>Geophysical Research Letters</i> , 2020, 47, e2020GL090255.	1.5	20
13	Creep Burst Coincident With Faulting in Marble Observed in 4D Synchrotron X-ray Imaging Triaxial Compression Experiments. <i>Journal of Geophysical Research: Solid Earth</i> , 2020, 125, e2020JB020354.	1.4	9
14	Predicting the propagation and interaction of frontal accretionary thrust faults with work optimization. <i>Tectonophysics</i> , 2020, 786, 228461.	0.9	4
15	Predicting the proximity to macroscopic failure using local strain populations from dynamic in situ X-ray tomography triaxial compression experiments on rocks. <i>Earth and Planetary Science Letters</i> , 2020, 543, 116344.	1.8	23
16	Competition between slow slip and damage on and off faults revealed in 4D synchrotron imaging experiments. <i>Tectonophysics</i> , 2020, 782-783, 228437.	0.9	5
17	How the energy budget scales from the laboratory to the crust in accretionary wedges. <i>Earth and Planetary Science Letters</i> , 2020, 541, 116276.	1.8	4
18	Volumetric and shear processes in crystalline rock approaching faulting. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2019, 116, 16234-16239.	3.3	56

#	ARTICLE	IF	CITATIONS
19	How Porosity Controls Macroscopic Failure via Propagating Fractures and Percolating Force Chains in Porous Granular Rocks. <i>Journal of Geophysical Research: Solid Earth</i> , 2019, 124, 9920-9939.	1.4	24
20	Isolating the Factors That Govern Fracture Development in Rocks Throughout Dynamic In Situ X-Ray Tomography Experiments. <i>Geophysical Research Letters</i> , 2019, 46, 11127-11135.	1.5	13
21	The evolving energy budget of experimental faults within continental crust: Insights from in situ dynamic X-ray microtomography. <i>Journal of Structural Geology</i> , 2019, 123, 42-53.	1.0	11
22	Mixed-Mode Strain Localization Generated by Hydration Reaction at Crustal Conditions. <i>Journal of Geophysical Research: Solid Earth</i> , 2019, 124, 4507-4522.	1.4	15
23	Volumetric and Shear Strain Localization in Mt. Etna Basalt. <i>Geophysical Research Letters</i> , 2019, 46, 2425-2433.	1.5	19
24	Linking macroscopic failure with micromechanical processes in layered rocks: How layer orientation and roughness control macroscopic behavior. <i>Tectonophysics</i> , 2019, 750, 229-242.	0.9	11
25	Dynamic In Situ Three-Dimensional Imaging and Digital Volume Correlation Analysis to Quantify Strain Localization and Fracture Coalescence in Sandstone. <i>Pure and Applied Geophysics</i> , 2019, 176, 1083-1115.	0.8	57
26	The influence of detachment strength on the evolving deformational energy budget of physical accretionary prisms. <i>Solid Earth</i> , 2018, 9, 1421-1436.	1.2	11
27	Investigating the Onset of Strain Localization Within Anisotropic Shale Using Digital Volume Correlation of Time-Resolved X-Ray Microtomography Images. <i>Journal of Geophysical Research: Solid Earth</i> , 2018, 123, 7509-7528.	1.4	42
28	Energy budget and propagation of faults via shearing and opening using work optimization. <i>Journal of Geophysical Research: Solid Earth</i> , 2017, 122, 6757-6772.	1.4	17
29	Work Optimization Predicts the Evolution of Extensional Step Overs Within Anisotropic Host Rock: Implications for the San Pablo Bay, CA. <i>Tectonics</i> , 2017, 36, 2630-2646.	1.3	12
30	Work Optimization Predicts Accretionary Faulting: An Integration of Physical and Numerical Experiments. <i>Journal of Geophysical Research: Solid Earth</i> , 2017, 122, 7485-7505.	1.4	17
31	TRACKING EFFICIENCY ASSOCIATED WITH FAULT SYSTEM REORGANIZATION IN LABORATORY AND NUMERICAL EXPERIMENTS. , 2017, , .		0
32	Growth by Optimization of Work (GROW): A new modeling tool that predicts fault growth through work minimization. <i>Computers and Geosciences</i> , 2016, 88, 142-151.	2.0	14
33	Synchrotron 4D X-Ray Imaging Reveals Strain Localization at the Onset of System-Size Failure in Porous Reservoir Rocks. <i>Pure and Applied Geophysics</i> , 0, , .	0.8	6