John P Harrison

List of Publications by Year in descending order

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430442 360668 1,294 45 18 35 citations g-index h-index papers 50 50 50 974 docs citations times ranked citing authors all docs

#	Article	IF	CITATIONS
1	Development of a local degradation approach to the modelling of brittle fracture in heterogeneous rocks. International Journal of Rock Mechanics and Minings Sciences, 2002, 39, 443-457.	2.6	165
2	A clustered overlapping sphere algorithm to represent real particles in discrete element modelling. Geotechnique, 2009, 59, 779-784.	2.2	122
3	Application of a local degradation model to the analysis of brittle fracture of laboratory scale rock specimens under triaxial conditions. International Journal of Rock Mechanics and Minings Sciences, 2002, 39, 459-476.	2.6	111
4	A semi-automated methodology for discontinuity trace detection in digital images of rock mass exposures. International Journal of Rock Mechanics and Minings Sciences, 2000, 37, 1073-1089.	2.6	95
5	A review of the state of the art in modelling progressive mechanical breakdown and associated fluid flow in intact heterogeneous rocks. International Journal of Rock Mechanics and Minings Sciences, 2006, 43, 1001-1022.	2.6	76
6	A mechanical degradation index for rock. International Journal of Rock Mechanics and Minings Sciences, 2001, 38, 1193-1199.	2.6	66
7	Triaxial strength and deformability of intact and increasingly jointed granite samples. International Journal of Rock Mechanics and Minings Sciences, 2017, 95, 87-103.	2.6	60
8	Development of a hydro-mechanical local degradation approach and its application to modelling fluid flow during progressive fracturing of heterogeneous rocks. International Journal of Rock Mechanics and Minings Sciences, 2005, 42, 961-984.	2.6	58
9	An empirical dilatancy index for the dilatant deformation of rock. International Journal of Rock Mechanics and Minings Sciences, 2004, 41, 679-686.	2.6	50
10	Assessment of rock fracture surface roughness using Riemannian statistics of linear profiles. International Journal of Rock Mechanics and Minings Sciences, 2010, 47, 940-948.	2.6	35
11	Multivariate distribution model for stress variability characterisation. International Journal of Rock Mechanics and Minings Sciences, 2018, 102, 144-154.	2.6	32
12	Hierarchical Bayesian modelling of geotechnical data: application to rock strength. Geotechnique, 2019, 69, 1056-1070.	2.2	32
13	Comprehensive statistical analysis of intact rock strength for reliability-based design. International Journal of Rock Mechanics and Minings Sciences, 2018, 106, 374-387.	2.6	30
14	Generation of random stress tensors. International Journal of Rock Mechanics and Minings Sciences, 2017, 94, 18-26.	2.6	26
15	Selection of the threshold value in RQD assessments. International Journal of Rock Mechanics and Minings Sciences, 1999, 36, 673-685.	2.6	25
16	Mean and dispersion of stress tensors using Euclidean and Riemannian approaches. International Journal of Rock Mechanics and Minings Sciences, 2016, 85, 165-173.	2.6	23
17	Rock mass properties for engineering design. Quarterly Journal of Engineering Geology and Hydrogeology, 2003, 36, 5-16.	0.8	19
18	Geoarchaeological and Environmental Work at the Sacred Animal Necropolis, North Saqqara, Egypt. Studia Quaternaria, 2013, 30, 83-89.	0.8	19

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19	Empirical parameters for non-linear fracture stiffness from numerical experiments of fracture closure. International Journal of Rock Mechanics and Minings Sciences, 2001, 38, 721-727.	2.6	17
20	Incorporating Parameter Variability in Rock Mechanics Analyses: Fuzzy Mathematics Applied to Underground Rock Spalling. Rock Mechanics and Rock Engineering, 2010, 43, 219-224.	2.6	17
21	Scalar-valued measures of stress dispersion. International Journal of Rock Mechanics and Minings Sciences, 2018, 106, 234-242.	2.6	17
22	Reliability-based design in rock engineering: Application of Bayesian regression methods to rock strength data. Journal of Rock Mechanics and Geotechnical Engineering, 2019, 11, 612-627.	3.7	17
23	Rock Engineering Design in Frozen and Thawing Rock: Current Approaches and Future Directions. Procedia Engineering, 2017, 191, 656-665.	1.2	12
24	Uncertainty in In Situ Stress Estimations: A Statistical Simulation to Study the Effect of Numbers of Stress Measurements. Rock Mechanics and Rock Engineering, 2019, 52, 5071-5084.	2.6	12
25	A Bayesian Approach for Uncertainty Quantification in Overcoring Stress Estimation. Rock Mechanics and Rock Engineering, 2021, 54, 627-645.	2.6	10
26	Examination of Mean Stress Calculation Approaches in Rock Mechanics. Rock Mechanics and Rock Engineering, 2019, 52, 83-95.	2.6	9
27	Numerical analysis of gas-bubble flow in water-filled natural fractures. Computers and Geotechnics, 1999, 24, 3-28.	2.3	8
28	Effect of Small Numbers of Test Results on Accuracy of Hoek–Brown Strength Parameter Estimations: A Statistical Simulation Study. Rock Mechanics and Rock Engineering, 2017, 50, 3293-3305.	2.6	8
29	Bayesian analysis for uncertainty quantification of in situ stress data. International Journal of Rock Mechanics and Minings Sciences, 2020, 134, 104381.	2.6	8
30	Silicone rubber castings for aperture measurement of rock fractures. International Journal of Rock Mechanics and Minings Sciences, 2003, 40, 939-945.	2.6	7
31	Numerical modelling of progressive damage and associated fluid flow using a hydro-mechanical local degradation approach. International Journal of Rock Mechanics and Minings Sciences, 2004, 41, 317-322.	2.6	6
32	Investigating the Relationship Between Far-Field Stress and Local Values of the Stress Tensor. Procedia Engineering, 2017, 191, 536-542.	1.2	6
33	Re-examination of the In Situ Stress Measurements on the 240 Level of the AECL's URL Using Tensor-Based Approaches. Rock Mechanics and Rock Engineering, 2018, 51, 3179-3188.	2.6	5
34	Heteroscedasticity of axial strength of transversely anisotropic rock. Geotechnique Letters, 2014, 4, 322-329.	0.6	4
35	Characteristic triaxial strength of intact rock for LSD. Proceedings of the Institution of Civil Engineers: Geotechnical Engineering, 2016, 169, 291-298.	0.9	4
36	Anisotropy and inhomogeneity. , 1997, , 163-172.		3

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37	Automated tracing of rock mass discontinuities from digital images. International Journal of Rock Mechanics and Minings Sciences, 1997, 34, 256.e1-256.e19.	2.6	3
38	A comparison of linear profiling and an in-plane method for the analysis of rock surface geometry. International Journal of Rock Mechanics and Minings Sciences, 2004, 41, 133-138.	2.6	3
39	Digital Reconstruction of Fragmented Archaeological Objects. Studies in Conservation, 2007, 52, 19-36.	0.6	3
40	Contributions toGéotechnique1948–2008: Engineering geology, rock mechanics and rock engineering. Geotechnique, 2008, 58, 449-455.	2.2	3
41	Calibrated Partial Factors for Support of Wedges Exposed in Tunnels. Procedia Engineering, 2017, 191, 802-810.	1.2	3
42	The Equivalence of Three Shear–Normal Stress Forms of the Hoek–Brown Criterion. Rock Mechanics and Rock Engineering, 2019, 52, 3501-3507.	2.6	3
43	Digital reconstruction of fragmented artefacts: Improved methods for data capture. The Conservator, 2003, 27, 81-94.	0.2	1
44	A postscript program for the production of equal angle equatorial hemispherical and spherical projection nets. International Journal of Rock Mechanics and Mining Sciences, 1995, 32, 143-147.	0.3	0
45	Integrating rock mechanics and structural geology in rock engineering. IOP Conference Series: Earth and Environmental Science, 2021, 833, 012001.	0.2	O