Ryan C Hurley

List of Publications by Year
in descending order

41 papers	778 citations	567281 15 h-index	526287 27 g-index
41 all docs	41 docs citations	41 times ranked	605 citing authors

#	Article	IF	Citations
1	Models for the behavior of boron carbide in extreme dynamic environments. Journal of the American Ceramic Society, 2022, 105, 3043-3061.	3.8	10
2	Quantifying the hierarchy of structural and mechanical length scales in granular systems. Extreme Mechanics Letters, 2022, 51, 101590.	4.1	6
3	Quantifying local rearrangements in three-dimensional granular materials: Rearrangement measures, correlations, and relationship to stresses. Physical Review E, 2022, 105, 014904.	2.1	10
4	Fragmentation and granular transition of ceramics for high rate loading. Journal of the American Ceramic Society, 2022, 105, 3062-3080.	3.8	3
5	Force inference in granular materials: Uncertainty analysis and application to three-dimensional experiment design. Physical Review E, 2022, 105, .	2.1	1
6	Failure Modeling and Sensitivity Analysis of Ceramics Under Impact. Journal of Applied Mechanics, Transactions ASME, 2021, 88, .	2.2	13
7	Quantifying particle-scale 3D granular dynamics during rapid compaction from time-resolved in situ 2D x-ray images. Journal of Applied Physics, 2021, 129, .	2.5	6
8	Stress and force measurement uncertainties in 3D granular materials. EPJ Web of Conferences, 2021, 249, 02009.	0.3	1
9	InÂSitu X-ray Tomography and 3D X-ray Diffraction Measurements of Cemented Granular Materials. Jom, 2020, 72, 18-27.	1.9	16
10	Workshop on Mathematical Challenges in Brittle Material Failure. Journal of Dynamic Behavior of Materials, 2020, 6, 14-23.	1.7	1
11	Constitutive Model for Brittle Granular Materials Considering Competition between Breakage and Dilation. Journal of Engineering Mechanics - ASCE, 2020, 146, .	2.9	23
12	An Integrative Model for the Dynamic Behavior of Brittle Materials Based on Microcracking and Breakage Mechanics. Journal of Dynamic Behavior of Materials, 2020, 6, 472-488.	1.7	5
13	The influence of packing structure and interparticle forces on ultrasound transmission in granular media. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 16234-16242.	7.1	13
14	The role of particle morphology on concrete fracture behaviour: A meso-scale modelling approach. Cement and Concrete Research, 2020, 134, 106096.	11.0	46
15	spam: Software for Practical Analysis of Materials. Journal of Open Source Software, 2020, 5, 2286.	4.6	97
16	An in-situ study of stress evolution and fracture growth during compression of concrete. International Journal of Solids and Structures, 2019, 168, 26-40.	2.7	19
17	Particle rotations and energy dissipation during mechanical compression of granular materials. Journal of the Mechanics and Physics of Solids, 2019, 129, 19-38.	4.8	30
18	A rateâ€dependent constitutive model for brittle granular materials based on breakage mechanics. Journal of the American Ceramic Society, 2019, 102, 5524-5534.	3.8	15

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19	Failures in sand in reduced gravity environments. Journal of the Mechanics and Physics of Solids, 2018, 113, 1-12.	4.8	19
20	Near-field non-radial motion generation from underground chemical explosions in jointed granite. Geophysical Journal International, 2018, 212, 25-41.	2.4	7
21	In situ grain fracture mechanics during uniaxial compaction of granular solids. Journal of the Mechanics and Physics of Solids, 2018, 112, 273-290.	4.8	57
22	Micromechanics of Granular Media Characterised Using X-Ray Tomography and 3DXRD. Trends in Mathematics, 2018, , 169-176.	0.1	2
23	Microscale investigation of dynamic impact of dry and saturated glass powder. AIP Conference Proceedings, 2018, , .	0.4	1
24	Simulations and experiments of dynamic granular compaction in non-ideal geometries. AIP Conference Proceedings, 2018, , .	0.4	0
25	Characterization of the crystal structure, kinematics, stresses and rotations in angular granular quartz during compaction. Journal of Applied Crystallography, 2018, 51, 1021-1034.	4.5	26
26	Analysis of Shear Bands in Sand Under Reduced Gravity Conditions. Springer Series in Geomechanics and Geoengineering, 2017, , 499-505.	0.1	0
27	An algorithm for continuum modeling of rocks with multiple embedded nonlinearly-compliant joints. Computational Mechanics, 2017, 60, 235-252.	4.0	10
28	Multi-scale mechanics of granular solids from grain-resolved X-ray measurements. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2017, 473, 20170491.	2.1	21
29	Linking initial microstructure and local response during quasistatic granular compaction. Physical Review E, 2017, 96, 012905.	2.1	18
30	Force measurements in stiff, 3D, opaque granular materials. EPJ Web of Conferences, 2017, 140, 02006.	0.3	2
31	Continuum modeling of rate-dependent granular flows in SPH. Computational Particle Mechanics, 2017, 4, 119-130.	3.0	16
32	Quantifying Interparticle Forces and Heterogeneity in 3D Granular Materials. Physical Review Letters, 2016, 117, 098005.	7.8	109
33	Dynamic Inter-Particle Force Inference in Granular Materials: Method and Application. Experimental Mechanics, 2016, 56, 217-229.	2.0	30
34	Friction in inertial granular flows: competition between dilation and grain-scale dissipation rates. Granular Matter, 2015, 17, 287-295.	2.2	32
35	Grain-Scale Measurements During Low Velocity Impact in Granular Media. , 2015, , 291-317.		2
36	Strength of Granular Materials in Transient and Steady State Rapid Shear. Procedia Engineering, 2015, 103, 237-245.	1.2	1

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37	Force chains as the link between particle and bulk friction angles in granular material. Geophysical Research Letters, 2014, 41, 8862-8869.	4.0	15
38	Small Scale Models Subjected to Buried Blast Loading Part I: Floorboard Accelerations and Related Passenger Injury Metrics with Protective Hulls. Experimental Mechanics, 2014, 54, 539-555.	2.0	9
39	Small Scale Models Subjected to Buried Blast Loading Part II: Frame Accelerations with Hulls and Additional Mitigation Methods. Experimental Mechanics, 2014, 54, 857-869.	2.0	3
40	Extracting inter-particle forces in opaque granular materials: Beyond photoelasticity. Journal of the Mechanics and Physics of Solids, 2014, 63, 154-166.	4.8	82
41	Challenges and opportunities in measuring time-resolved force chain evolution in 3D granular materials. Papers in Physics, 0, 14, 140003.	0.2	1