

Lori L Graham-Brady

List of Publications by Year in descending order

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67
papers

1,755
citations

257357

24
h-index

289141

40
g-index

70
all docs

70
docs citations

70
times ranked

1109
citing authors

#	ARTICLE	IF	CITATIONS
1	Digital image correlation analysis of interfacial debonding properties and fracture behavior in concrete. <i>Engineering Fracture Mechanics</i> , 2007, 74, 109-121.	2.0	185
2	Characterization of Random Composites Using Moving-Window Technique. <i>Journal of Engineering Mechanics - ASCE</i> , 2000, 126, 389-397.	1.6	83
3	A stochastic computational method for evaluation of global and local behavior of random elastic media. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2005, 194, 4362-4385.	3.4	78
4	A multi-scale spectral stochastic method for homogenization of multi-phase periodic composites with random material properties. <i>International Journal for Numerical Methods in Engineering</i> , 2010, 83, 59-90.	1.5	73
5	Stochastic simulation of non-Gaussian/non-stationary properties in a functionally graded plate. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2005, 194, 1675-1692.	3.4	71
6	Predicting variability in the dynamic failure strength of brittle materials considering pre-existing flaws. <i>Journal of the Mechanics and Physics of Solids</i> , 2011, 59, 297-319.	2.3	66
7	Statistical characterization of meso-scale uniaxial compressive strength in brittle materials with randomly occurring flaws. <i>International Journal of Solids and Structures</i> , 2010, 47, 2398-2413.	1.3	61
8	Stress field prediction in fiber-reinforced composite materials using a deep learning approach. <i>Composites Part B: Engineering</i> , 2022, 238, 109879.	5.9	60
9	Response and eigenvalue analysis of stochastic finite element systems with multiple correlated material and geometric properties. <i>Probabilistic Engineering Mechanics</i> , 2001, 16, 11-29.	1.3	56
10	A 3D mechanistic model for brittle materials containing evolving flaw distributions under dynamic multiaxial loading. <i>Journal of the Mechanics and Physics of Solids</i> , 2015, 78, 269-297.	2.3	51
11	Simulation of local material properties based on moving-window GMC. <i>Probabilistic Engineering Mechanics</i> , 2001, 16, 295-305.	1.3	44
12	Bayesian neural networks for uncertainty quantification in data-driven materials modeling. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2021, 386, 114079.	3.4	44
13	Variability response functions for stochastic plate bending problems. <i>Structural Safety</i> , 1998, 20, 167-188.	2.8	42
14	A translation model for non-stationary, non-Gaussian random processes. <i>Probabilistic Engineering Mechanics</i> , 2005, 20, 215-228.	1.3	42
15	Computational stochastic homogenization of random media elliptic problems using Fourier Galerkin method. <i>Finite Elements in Analysis and Design</i> , 2006, 42, 613-622.	1.7	38
16	Modeling the effect of mesoscale randomness on concrete fracture. <i>Probabilistic Engineering Mechanics</i> , 2006, 21, 217-225.	1.3	38
17	Analysis of Heterogeneous Composites Based on Moving-Window Techniques. <i>Journal of Engineering Mechanics - ASCE</i> , 2003, 129, 1054-1064.	1.6	37
18	Micromechanics based random material property fields for particulate reinforced composites. <i>International Journal of Solids and Structures</i> , 2001, 38, 9209-9220.	1.3	36

#	ARTICLE	IF	CITATIONS
19	Probability and Materials: from Nano- to Macro-Scale: A summary. Probabilistic Engineering Mechanics, 2006, 21, 193-199.	1.3	35
20	Efficient numerical strategies for spectral stochastic finite element models. International Journal for Numerical Methods in Engineering, 2005, 64, 1334-1349.	1.5	32
21	Stochastic Finite-Element Analysis for Elastic Buckling of Stiffened Panels. Journal of Engineering Mechanics - ASCE, 2001, 127, 91-97.	1.6	31
22	Stochastic Morphological Modeling of Random Multiphase Materials. Journal of Applied Mechanics, Transactions ASME, 2008, 75, .	1.1	30
23	Non-Gaussian simulation of local material properties based on a moving-window technique. Probabilistic Engineering Mechanics, 2003, 18, 223-234.	1.3	29
24	Damage development in composites with large stress gradients. Composites Science and Technology, 2001, 61, 2169-2182.	3.8	28
25	Tessellation growth models for polycrystalline microstructures. Computational Materials Science, 2015, 102, 57-67.	1.4	26
26	Stochastic collocation approach with adaptive mesh refinement for parametric uncertainty analysis. Journal of Computational Physics, 2018, 371, 732-750.	1.9	24
27	Constitutive Model for Brittle Granular Materials Considering Competition between Breakage and Dilation. Journal of Engineering Mechanics - ASCE, 2020, 146, .	1.6	23
28	A hierarchy of upper bounds on the response of stochastic systems with large variation of their properties: random variable case. Probabilistic Engineering Mechanics, 2003, 18, 349-363.	1.3	22
29	A random field-based method to estimate convergence of apparent properties in computational homogenization. Computer Methods in Applied Mechanics and Engineering, 2018, 330, 253-270.	3.4	22
30	An efficient adaptive sparse grid collocation method through derivative estimation. Probabilistic Engineering Mechanics, 2018, 51, 11-22.	1.3	21
31	An efficient optimization based microstructure reconstruction approach with multiple loss functions. Computational Materials Science, 2021, 199, 110709.	1.4	21
32	A micromechanics based model to predict micro-crack coalescence in brittle materials under dynamic compression. Engineering Fracture Mechanics, 2019, 217, 106515.	2.0	19
33	STOCHASTIC POST-BUCKLING OF FRAMES USING KOITER'S METHOD. International Journal of Structural Stability and Dynamics, 2006, 06, 333-358.	1.5	18
34	Meso-scale modeling of plasticity in composites. Computer Methods in Applied Mechanics and Engineering, 2009, 198, 920-932.	3.4	18
35	Mechanical trapping of fine particles in a medium of mono-sized randomly packed spheres. International Journal for Numerical and Analytical Methods in Geomechanics, 2014, 38, 1776-1791.	1.7	17
36	Geometrically non-linear behavior of structural systems with random material property: An asymptotic spectral stochastic approach. Computer Methods in Applied Mechanics and Engineering, 2009, 198, 3173-3185.	3.4	16

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37	Stochastic analysis of concrete dams with alkali aggregate reaction. Cement and Concrete Research, 2020, 132, 106032.	4.6	16
38	Modeling dynamic brittle behavior of materials with circular flaws or pores. International Journal of Solids and Structures, 2014, 51, 754-766.	1.3	15
39	A rate-dependent constitutive model for brittle granular materials based on breakage mechanics. Journal of the American Ceramic Society, 2019, 102, 5524-5534.	1.9	15
40	Stochastic direct integration schemes for dynamic systems subjected to random excitations. Probabilistic Engineering Mechanics, 2010, 25, 163-171.	1.3	14
41	On the usefulness of gradient information in surrogate modeling: Application to uncertainty propagation in composite material models. Probabilistic Engineering Mechanics, 2020, 60, 103024.	1.3	14
42	Failure Modeling and Sensitivity Analysis of Ceramics Under Impact. Journal of Applied Mechanics, Transactions ASME, 2021, 88, .	1.1	13
43	A hierarchy of upper bounds on the response of stochastic systems with large variation of their properties: random field case. Probabilistic Engineering Mechanics, 2003, 18, 365-375.	1.3	12
44	Elastoplastic Mesoscale Homogenization of Composite Materials. Journal of Engineering Mechanics - ASCE, 2010, 136, 613-624.	1.6	11
45	Analysis of Portland cement mortar under impact: A combined material characterization, micromechanics modeling, and dynamic testing approach. Cement and Concrete Research, 2015, 73, 190-206.	4.6	11
46	An efficient binning scheme with application to statistical crack mechanics. International Journal for Numerical Methods in Engineering, 2016, 105, 33-62.	1.5	10
47	Effective anisotropic compliance relationships for wing-cracked brittle materials under compression. International Journal of Solids and Structures, 2016, 100-101, 151-168.	1.3	10
48	Modeling dynamic fragmentation of heterogeneous brittle materials. International Journal of Impact Engineering, 2017, 99, 85-101.	2.4	10
49	Models for the behavior of boron carbide in extreme dynamic environments. Journal of the American Ceramic Society, 2022, 105, 3043-3061.	1.9	10
50	Probabilistic Modeling of Discrete Structural Response with Application to Composite Plate Penetration Models. Journal of Engineering Mechanics - ASCE, 2021, 147, .	1.6	10
51	The metallurgical analysis of wrought iron from the RMTitanic. Measurement Science and Technology, 2003, 14, 1556-1563.	1.4	9
52	Free energy calculation using space filled design and weighted reconstruction: a modified single sweep approach. Molecular Simulation, 2020, 46, 193-206.	0.9	5
53	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.	1.1	5
54	Modeling the effects of material non-linearity using moving window micromechanics. International Journal of Non-Linear Mechanics, 2005, 40, 351-359.	1.4	4

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55	A micro-mechanical modeling approach for dynamic fragmentation in brittle multi-phase materials. International Journal of Solids and Structures, 2018, 134, 116-129.	1.3	4
56	Modeling mesoscale uncertainty for concrete in tension. Computers and Concrete, 2007, 4, 347-362.	0.7	3
57	The spatial averaging method for non-homogeneous random fields with application to reliability analysis. Engineering Structures, 2022, 253, 113761.	2.6	3
58	Fragmentation and granular transition of ceramics for high rate loading. Journal of the American Ceramic Society, 2022, 105, 3062-3080.	1.9	3
59	Upscaling Crack Propagation and Random Interactions in Brittle Materials Under Dynamic Loading. Procedia IUTAM, 2013, 6, 108-113.	1.2	2
60	IMPERFECTION SENSITIVITY AND RELIABILITY USING SIMPLE BAR-SPRING MODELS FOR STABILITY. International Journal of Structural Stability and Dynamics, 2013, 13, 1250075.	1.5	2
61	Micromechanical Model and Associated Validation for Dynamic Failure of Brittle Materials Containing Pores and Slit-Like Flaws. Journal of Engineering Mechanics - ASCE, 2015, 141, 04015040.	1.6	2
62	Maximum Value Distribution of Micromechanical Response Quantities. Journal of Engineering Mechanics - ASCE, 2019, 145, .	1.6	1
63	PERTURBATION-BASED SURROGATE MODELS FOR DYNAMIC FAILURE OF BRITTLE MATERIALS IN A MULTISCALE AND PROBABILISTIC CONTEXT. International Journal for Multiscale Computational Engineering, 2016, 14, 273-290.	0.8	1
64	Maximum Displacement Variability of Stochastic Structures Subject to Deterministic Earthquake Loading. Shock and Vibration, 1998, 5, 355-369.	0.3	0
65	Simulation and Classification of Random Multiphase Materials Through Short-Range Correlation. , 2006, , .		0
66	Spatial Variability of Strength of Brittle Materials Under High-Strain-Rate Loadings. , 2011, , .		0
67	A Framework for Quantifying Effects of Characterization Error on the Predicted Local Elastic Response in Polycrystalline Materials. , 2020, , 223-247.		0