

Krishnaswamy Ravi-Chandar

List of Publications by Year in descending order

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64
papers

2,414
citations

218592

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48
g-index

67
all docs

67
docs citations

67
times ranked

1671
citing authors

#	ARTICLE	IF	CITATIONS
1	Nonlinear poroviscoelastic behavior of gelatin-based hydrogel. Journal of the Mechanics and Physics of Solids, 2022, 158, 104650.	2.3	11
2	The revisited phase-field approach to brittle fracture: application to indentation and notch problems. International Journal of Fracture, 2022, 237, 83-100.	1.1	11
3	Characterization of human female breast and abdominal skin elasticity using a bulge test.. Journal of the Mechanical Behavior of Biomedical Materials, 2020, 103, 103604.	1.5	11
4	Linear and nonlinear poroelastic analysis of swelling and drying behavior of gelatin-based hydrogels. International Journal of Solids and Structures, 2020, 195, 43-56.	1.3	8
5	The third Sandia fracture challenge: predictions of ductile fracture in additively manufactured metal. International Journal of Fracture, 2019, 218, 5-61.	1.1	62
6	Dynamic strain localization in magnesium alloy AZ31B-O. Mechanics of Materials, 2018, 116, 189-201.	1.7	8
7	Damage in elastomers: healing of internally nucleated cavities and micro-cracks. Soft Matter, 2018, 14, 4633-4640.	1.2	20
8	The configurational-forces view of the nucleation and propagation of fracture and healing in elastomers as a phase transition. International Journal of Fracture, 2018, 213, 1-16.	1.1	16
9	Experimental validation of a phase-field model for fracture. International Journal of Fracture, 2017, 205, 83-101.	1.1	91
10	On the deformation and failure of Al 6061-T6 in plane strain tension evaluated through in situ microscopy. International Journal of Fracture, 2017, 208, 27-52.	1.1	6
11	Mechanical response of human female breast skin under uniaxial stretching. Journal of the Mechanical Behavior of Biomedical Materials, 2017, 74, 164-175.	1.5	27
12	The formation and growth of echelon cracks in brittle materials. International Journal of Fracture, 2017, 206, 229-244.	1.1	35
13	Damage in elastomers: nucleation and growth of cavities, micro-cracks, and macro-cracks. International Journal of Fracture, 2017, 205, 1-21.	1.1	64
14	The second Sandia Fracture Challenge: predictions of ductile failure under quasi-static and moderate-rate dynamic loading. International Journal of Fracture, 2016, 198, 5-100.	1.1	73
15	On the growth of cracks under mixed-mode I+III loading. International Journal of Fracture, 2016, 199, 105-134.	1.1	31
16	On the deformation and failure of Al 6061-T6 at low triaxiality evaluated through in situ microscopy. International Journal of Fracture, 2016, 200, 185-208.	1.1	17
17	Prediction of ductile failure in Ti-6Al-4V using a local strain-to-failure criterion. International Journal of Fracture, 2016, 198, 221-245.	1.1	5
18	A computational framework for dynamic data-driven material damage control, based on Bayesian inference and model selection. International Journal for Numerical Methods in Engineering, 2015, 102, 379-403.	1.5	27

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19	On the Extraction of Elastic-Plastic Constitutive Properties From Three-Dimensional Deformation Measurements. <i>Journal of Applied Mechanics, Transactions ASME</i> , 2015, 82, .	1.1	17
20	In-vivo quantification of human breast deformation associated with the position change from supine to upright. <i>Medical Engineering and Physics</i> , 2015, 37, 13-22.	0.8	16
21	Cavitation in rubber: an elastic instability or a fracture phenomenon?. <i>International Journal of Fracture</i> , 2015, 192, 1-23.	1.1	64
22	3D surface imaging of the human female torso in upright to supine positions. <i>Medical Engineering and Physics</i> , 2015, 37, 375-383.	0.8	33
23	50 Years of the <i>International Journal of Fracture</i> . <i>International Journal of Fracture</i> , 2015, 191, 1-7.	1.1	0
24	The Sandia Fracture Challenge: blind round robin predictions of ductile tearing. <i>International Journal of Fracture</i> , 2014, 186, 5-68.	1.1	115
25	Prediction of ductile failure using a local strain-to-failure criterion. <i>International Journal of Fracture</i> , 2014, 186, 69-91.	1.1	13
26	Dynamic Crushing of Unidirectionally Reinforced Metal Matrix Composite. <i>Strain</i> , 2014, 50, 517-526.	1.4	1
27	Further examination of the criterion for crack initiation under mixed-mode I+III loading. <i>International Journal of Fracture</i> , 2014, 189, 121-138.	1.1	41
28	Dynamic tensile characterization of pig skin. <i>Acta Mechanica Sinica/Lixue Xuebao</i> , 2014, 30, 125-132.	1.5	21
29	Crack nucleation from a notch in a ductile material under shear dominant loading. <i>International Journal of Fracture</i> , 2013, 184, 253-266.	1.1	8
30	Ductile failure under combined shear and tension. <i>International Journal of Solids and Structures</i> , 2013, 50, 1507-1522.	1.3	145
31	Ductile failure behavior of polycrystalline Al 6061-T6 under shear dominant loading. <i>International Journal of Fracture</i> , 2013, 180, 23-39.	1.1	77
32	Characterization of the Transient Response of Polyurea. <i>Experimental Mechanics</i> , 2013, 53, 113-122.	1.1	7
33	On the Evaluation of the Elastic Modulus of Soft Materials Using Beams with Unknown Initial Curvature. <i>Strain</i> , 2013, 49, 420-430.	1.4	6
34	Ductile failure behavior of polycrystalline Al 6061-T6. <i>International Journal of Fracture</i> , 2012, 174, 177-202.	1.1	95
35	Modeling the nonlinear viscoelastic behavior of polyurea using a distortion modified free volume approach. <i>Mechanics of Time-Dependent Materials</i> , 2012, 16, 181-203.	2.3	12
36	Ductile failure in polycrystalline OFHC copper. <i>International Journal of Solids and Structures</i> , 2011, 48, 3299-3311.	1.3	36

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37	Melting and crack growth in electrical conductors subjected to short-duration current pulses. International Journal of Fracture, 2011, 167, 183-193.	1.1	26
38	On the dynamics of localization and fragmentation: V. Response of polymer coated Al 6061-O tubes. International Journal of Fracture, 2011, 172, 161-185.	1.1	7
39	On the response of rubbers at high strain ratesâ€™I. Simple waves. Journal of the Mechanics and Physics of Solids, 2011, 59, 423-441.	2.3	27
40	On the response of rubbers at high strain ratesâ€™II. Shock waves. Journal of the Mechanics and Physics of Solids, 2011, 59, 442-456.	2.3	17
41	On the response of rubbers at high strain ratesâ€™III. Effect of hysteresis. Journal of the Mechanics and Physics of Solids, 2011, 59, 457-472.	2.3	21
42	On hysteretic response and stationary phase fronts in rubber. Continuum Mechanics and Thermodynamics, 2010, 22, 469-484.	1.4	3
43	On the dynamics of localization and fragmentation-IV. Expansion of Al 6061-O tubes. International Journal of Fracture, 2010, 163, 41-65.	1.1	55
44	Criterion for initiation of cracks under mixed-mode I + III loading. International Journal of Fracture, 2010, 165, 175-188.	1.1	108
45	On the dynamics of localization and fragmentationâ€™III. Effect of cladding with a polymer. International Journal of Fracture, 2009, 155, 101-118.	1.1	32
46	Dynamic Measurement of Two Dimensional Stress Components in Birefringent Materials. Experimental Mechanics, 2009, 49, 403-416.	1.1	10
47	On the dynamics of necking and fragmentationâ€™II. Effect of material properties, geometrical constraints and absolute size. International Journal of Fracture, 2008, 150, 3-36.	1.1	81
48	Melting and Cavity Growth in the Vicinity of Crack Tips Subjected to Short-Duration Current Pulses. , 2008, , .		1
49	Strain Evolution in Metal Conductors Subjected to Short-Duration Current Pulses. IEEE Transactions on Magnetics, 2007, 43, 338-342.	1.2	4
50	Photomechanics in Dynamic Fracture and Friction Studies. Strain, 2007, 43, 151-165.	1.4	5
51	On the dynamics of necking and fragmentation â€™ I. Real-time and post-mortem observations in Al 6061-O. International Journal of Fracture, 2007, 142, 183-217.	1.1	109
52	On the Development of a Mesoscale Friction Tester. Experimental Mechanics, 2007, 47, 123-131.	1.1	12
53	Helicoidal Composites. Mechanics of Advanced Materials and Structures, 2006, 13, 61-76.	1.5	97
54	Nanoscale damage during fracture in silica glass. International Journal of Fracture, 2006, 140, 3-14.	1.1	56

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55	Forty years of International Journal of Fracture. International Journal of Fracture, 2006, 141, 1-2.	1.1	3
56	Characterization of Multiaxial Constitutive Properties of Rubbery Polymers. Journal of Engineering Materials and Technology, Transactions of the ASME, 2006, 128, 489-494.	0.8	29
57	Role of experiments in mechanics. Experimental Mechanics, 2005, 45, 478-492.	1.1	3
58	Dynamic crack response to a localized shear pulse perturbation in brittle amorphous materials: on crack surface roughening. International Journal of Fracture, 2005, 134, 1-22.	1.1	31
59	The mechanical behavior of conductors exposed to short-duration thermal loading. IEEE Transactions on Magnetics, 2005, 41, 256-261.	1.2	9
60	Mechanical Response of a Metallic Aortic Stent—Part II: A Beam-on-Elastic Foundation Model. Journal of Applied Mechanics, Transactions ASME, 2004, 71, 706-712.	1.1	23
61	Viscoelastic Characterization of Polymers Under Multiaxial Compression. Mechanics of Time-Dependent Materials, 2004, 8, 193-214.	2.3	45
62	Influence of Surface Residual Stress State on Crack Path Evolution in Polycrystalline Alumina. Journal of the American Ceramic Society, 2002, 85, 1783-1787.	1.9	13
63	An experimental investigation into dynamic fracture: II. Microstructural aspects. International Journal of Fracture, 1984, 26, 65-80.	1.1	354
64	The mechanical behavior of conductors exposed to short-duration thermal loading. , 0, , .		2