Kumbakonam R Rajagopal

List of Publications by Year in Descending Order

541 papers	16,403 citations	64 h-index	107 g-index
562 ext. papers	17,983 ext. citations	2.9 avg, IF	7.19 L-index

#	Paper	IF	Citations
541	Flow past a porous plate of non-Newtonian fluids with implicit shear stress shear rate relationships. *European Journal of Mechanics, B/Fluids*, **2022**, 92, 166-173	2.4	0
540	Implicit nonlinear elastic bodies with density dependent material moduli and its linearization. *International Journal of Solids and Structures*, **2022**, 234-235, 111255	3.1	2
539	Start-up shear flow of a shear-thinning fluid that approximates the response of viscoplastic fluids. *Applied Mathematics and Computation*, **2022**, 412, 126571	2.7	0
538	Experimental Investigation of the Anisotropic Mechanical Response of the Porcine Thoracic Aorta.. *Annals of Biomedical Engineering*, **2022**, 50, 452	4.7	2
537	Mixture model for thermo-chemo-mechanical processes in fluid-infused solids. *International Journal of Engineering Science*, **2022**, 174, 103576	5.7	0
536	Jeffery–Hamel flow of a shear-thinning fluid that mimics the reponse of viscoplastic materials. *International Journal of Non-Linear Mechanics*, **2022**, 104084	2.8	2
535	Channel flows of shear-thinning fluids that mimic the mechanical response of a Bingham fluid. *International Journal of Non-Linear Mechanics*, **2021**, 138, 103847	2.8	2
534	A note on the stability of flows of fluids whose symmetric part of the velocity gradient is a function of the stress. *Applications in Engineering Science*, **2021**, 8, 100072	0.4	
533	Stress concentration factors around a circular hole in two fiber reinforced materials under large deformations. *Mechanics of Materials*, **2021**, 163, 104089	3.3	1
532	Implicit Type Constitutive Relations for Elastic Solids and Their Use in the Development of Mathematical Models for Viscoelastic Fluids. *Fluids*, **2021**, 6, 131	1.6	2
531	A constitutive model for wet granular materials. *Particulate Science and Technology*, **2021**, 39, 903-910	2	0
530	Stress concentration due to the presence of a hole within the context of elastic bodies. *Material Design and Processing Communications*, **2021**, 3, e219	0.9	5
529	The circumferential shearing of a cylindrical annulus of viscoelastic solids described by implicit constitutive relations. *Acta Mechanica*, **2021**, 232, 2679	2.1	1
528	On an Implicit Model Linear in Both Stress and Strain to Describe the Response of Porous Solids. *Journal of Elasticity*, **2021**, 144, 107-118	1.5	2
527	On the instability, nonexistence and spatial behaviour of the one-dimensional response of a new class of elastic bodies. *IMA Journal of Applied Mathematics*, **2021**, 86, 565-576	1	
526	Computational corroboration of the flow of rock glaciers against borehole measurements. *International Journal of Non-Linear Mechanics*, **2021**, 132, 103710	2.8	
525	A benchmark problem to evaluate implementational issues for three-dimensional flows of incompressible fluids subject to slip boundary conditions. *Applications in Engineering Science*, **2021**, 6, 100038	0.4	1

524	Asymptotic beam theory for non-classical elastic materials. *International Journal of Mechanical Sciences*, **2021**, 189, 105950	5.5	6
523	A study of the dissipation of energy in the helmet due to a blast on a helmet□Skull□Brain assembly. *Composite Structures*, **2021**, 257, 113124	5.3	0
522	A thermodynamic framework for additive manufacturing, using amorphous polymers, capable of predicting residual stress, warpage and shrinkage. *International Journal of Engineering Science*, **2021**, 159, 103412	5.7	9
521	On lower-dimensional models in lubrication, Part B: Derivation of a Reynolds type of equation for incompressible piezo-viscous fluids. *Proceedings of the Institution of Mechanical Engineers, Part J: Journal of Engineering Tribology*, **2021**, 235, 1703-1718	1.4	4
520	On lower-dimensional models in lubrication, Part A: Common misinterpretations and incorrect usage of the Reynolds equation. *Proceedings of the Institution of Mechanical Engineers, Part J: Journal of Engineering Tribology*, **2021**, 235, 1692-1702	1.4	3
519	A model for a solid undergoing rate-independent dissipative mechanical processes. *Mathematics and Mechanics of Solids*, **2021**, 26, 230-243	2.3	0
518	Unconditional finite amplitude stability of a fluid in a mechanically isolated vessel with spatially non-uniform wall temperature. *Continuum Mechanics and Thermodynamics*, **2021**, 33, 515-543	3.5	1
517	A two-constituent nonlinear viscoelastic model for asphalt mixtures. *Road Materials and Pavement Design*, **2021**, 22, 910-924	2.6	2
516	A class of transversely isotropic non-linear elastic bodies that is not Green elastic. *Journal of Engineering Mathematics*, **2021**, 127, 1	1.2	
515	Lagrange multiplier approach to unilateral indentation problems: Well-posedness and application to linearized viscoelasticity with non-invertible constitutive response. *Mathematical Models and Methods in Applied Sciences*, **2021**, 31, 649-674	3.5	1
514	An implicit constitutive relation for describing the small strain response of porous elastic solids whose material moduli are dependent on the density. *Mathematics and Mechanics of Solids*, **2021**, 26, 1138-1146	2.3	7
513	A new type of constitutive equation for nonlinear elastic bodies. Fitting with experimental data for rubber-like materials. *Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences*, **2021**, 477, 20210330	2.4	4
512	The derivation of the FENE-P model within the context of a thermodynamic perspective for bodies with evolving natural configurations. *International Journal of Non-Linear Mechanics*, **2021**, 134, 103729	2.8	0
511	Finite element approximation of steady flows of colloidal solutions. *ESAIM: Mathematical Modelling and Numerical Analysis*, **2021**, 55, 1963-2011	1.8	
510	Inflation of residually stressed Fung-type membrane models of arteries. *Journal of the Mechanical Behavior of Biomedical Materials*, **2021**, 122, 104699	4.1	0
509	The residually stressed unloaded state of arteries: Membrane and thin cylinder approximations. *Journal of the Mechanical Behavior of Biomedical Materials*, **2021**, 122, 104521	4.1	1
508	A thermomechanical and photochemical description of the phase change process in roll-to-roll nanoimprinting lithography. *International Journal of Engineering Science*, **2021**, 169, 103564	5.7	0
507	Function Follows Form: Modeling Ventricular Assist Device-Mediated Blood Flow. *ASAIO Journal*, **2021**, 67, 734-736	3.6	

506	On the Classification of Incompressible Fluids and a Mathematical Analysis of the Equations That Govern Their Motion. *SIAM Journal on Mathematical Analysis*, **2020**, 52, 1232-1289	1.7	15
505	Segmental Variations in the Peel Characteristics of the Porcine Thoracic Aorta. *Annals of Biomedical Engineering*, **2020**, 48, 1751-1767	4.7	3
504	Modeling Approaches and Some Physical Considerations Concerning Thermodynamics and the Theory of Mixtures Applied to Time-Dependent Behaviors in Heterogeneous Materials. *Experimental Mechanics*, **2020**, 60, 591-609	2.6	3
503	Chemo-mechanical coupling and material evolution in finitely deforming solids with advancing fronts of reactive fluids. *Acta Mechanica*, **2020**, 231, 1933-1961	2.1	4
502	Gibbs free energy based representation formula within the context of implicit constitutive relations for elastic solids. *International Journal of Non-Linear Mechanics*, **2020**, 121, 103433	2.8	12
501	The Boussinesq flat-punch indentation problem within the context of linearized viscoelasticity. *International Journal of Engineering Science*, **2020**, 151, 103272	5.7	7
500	A Model to Describe the Response of Arctic Sea Ice. *Springer INdAM Series*, **2020**, 163-178	0.4	
499	Mathematical Modeling of Rock Glacier Flow with Temperature Effects. *Springer INdAM Series*, **2020** , 149-161	0.4	
498	The Mechanics and Mathematics of Bodies Described by Implicit Constitutive Equations. *Mathematics for Industry*, **2020**, 49-65	0.1	
497	A Review of Implicit Constitutive Theories to Describe the Response of Elastic Bodies. *Solid Mechanics and Its Applications*, **2020**, 187-230	0.4	7
496	Modeling of the Aorta: Complexities and Inadequacies. *Aorta*, **2020**, 8, 91-97	0.9	8
495	Modeling deformation induced anisotropy of light-activated shape memory polymers. *International Journal of Non-Linear Mechanics*, **2020**, 120, 103376	2.8	3
494	Analysis of reclaimed asphalt blended binders using linear and nonlinear viscoelasticity frameworks. *Materials and Structures/Materiaux Et Constructions*, **2020**, 53, 1	3.4	0
493	Implicit constitutive relations for describing the response of visco-elastic bodies. *International Journal of Non-Linear Mechanics*, **2020**, 126, 103526	2.8	3
492	Implicit constitutive relations for visco-elastic solids: Part II. Non-homogeneous deformations. *International Journal of Non-Linear Mechanics*, **2020**, 126, 103560	2.8	2
491	Density-driven damage mechanics (D3-M) model for concrete I: mechanical damage. *International Journal of Pavement Engineering*, **2020**, 1-14	2.6	3
490	Density driven damage mechanics (D3-M) model for concrete II: fully coupled chemo-mechanical damage. *International Journal of Pavement Engineering*, **2020**, 1-11	2.6	3
489	Viscoelastic transitions exhibited by modified and unmodified bitumen. *International Journal of Pavement Engineering*, **2020**, 21, 766-780	2.6	3

488	Thin-Film Flow of an Inhomogeneous Fluid with Density-Dependent Viscosity. *Fluids*, **2019**, 4, 30	1.6	7
487	A thermodynamically consistent model for viscoelastic polymers undergoing microstructural changes. *International Journal of Engineering Science*, **2019**, 142, 106-124	5.7	12
486	Lubrication Approximation for Fluids with Shear-Dependent Viscosity. *Fluids*, **2019**, 4, 98	1.6	0
485	Motion of a finite composite cylindrical annulus comprised of nonlinear elastic solids subject to periodic shear. *International Journal of Non-Linear Mechanics*, **2019**, 113, 31-43	2.8	0
484	Some remarks and clarifications concerning the restrictions placed on thermodynamic processes. *International Journal of Engineering Science*, **2019**, 140, 26-34	5.7	7
483	Flow of a new class of non-Newtonian fluids in tubes of non-circular cross-sections. *Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences*, **2019**, 377, 20180069	3	3
482	Well-posedness of the problem of non-penetrating cracks in elastic bodies whose material moduli depend on the mean normal stress. *International Journal of Engineering Science*, **2019**, 136, 17-25	5.7	9
481	A decomposition of Laplace stretch with applications in inelasticity. *Acta Mechanica*, **2019**, 230, 3423-3429	2.1	12
480	The State of Stress and Strain Adjacent to Notches in a New Class of Nonlinear Elastic Bodies. *Journal of Elasticity*, **2019**, 135, 375-397	1.5	8
479	Inhomogeneous non-unidirectional deformations of an elastic wedge. *Quarterly Journal of Mechanics and Applied Mathematics*, **2019**, 72, 1-23	1	
478	A Review of Automatic Vehicle Following Systems. *Journal of the Indian Institute of Science*, **2019**, 99, 567-587	2.4	8
477	Crack problem within the context of implicitly constituted quasi-linear viscoelasticity. *Mathematical Models and Methods in Applied Sciences*, **2019**, 29, 355-372	3.5	8
476	Reversal of flow of a non-Newtonian fluid in an expanding channel. *International Journal of Non-Linear Mechanics*, **2018**, 101, 44-55	2.8	5
475	Lubrication approximation of flows of a special class of non-Newtonian fluids defined by rate type constitutive equations. *Applied Mathematical Modelling*, **2018**, 60, 508-525	4.5	2
474	A New Class of Models to Describe the Response of Electrorheological and Other Field Dependent Fluids. *Advanced Structured Materials*, **2018**, 655-673	0.6	2
473	An adaptive finite element method for the inequality-constrained Reynolds equation. *Computer Methods in Applied Mechanics and Engineering*, **2018**, 336, 156-170	5.7	4
472	Initiation of damage in a class of polymeric materials embedded with multiple localized regions of lower density. *Mathematics and Mechanics of Solids*, **2018**, 23, 865-878	2.3	3
471	On the states of stress and strain adjacent to a crack in a strain-limiting viscoelastic body. *Mathematics and Mechanics of Solids*, **2018**, 23, 433-444	2.3	14

470	Bodies described by non-monotonic strain-stress constitutive equations containing a crack subject to anti-plane shear stress. *International Journal of Mechanical Sciences*, **2018**, 149, 494-499	5.5	4
469	A nonlinear model for describing the mechanical behaviour of rock. *Acta Mechanica*, **2018**, 229, 251-272	2.1	14
468	Numerical simulations of an incompressible piezoviscous fluid flowing in a plane slider bearing. *Meccanica*, **2018**, 53, 209-228	2.1	2
467	Modelling residual stresses in elastic bodies described by implicit constitutive relations. *International Journal of Non-Linear Mechanics*, **2018**, 105, 113-129	2.8	1
466	Simulation of inextensible elasto-plastic beams based on an implicit rate type model. *International Journal of Non-Linear Mechanics*, **2018**, 99, 165-172	2.8	6
465	On viscoelastic beams undergoing cyclic loading: Determining the onset of structural instabilities. *International Journal of Non-Linear Mechanics*, **2018**, 99, 40-50	2.8	6
464	A note on the linearization of the constitutive relations of non-linear elastic bodies. *Mechanics Research Communications*, **2018**, 93, 132-137	2.2	21
463	DETERMINING MATERIAL PROPERTIES OF NATURAL RUBBER USING FEWER MATERIAL MODULI IN VIRTUE OF A NOVEL CONSTITUTIVE APPROACH FOR ELASTIC BODIES. *Rubber Chemistry and Technology*, **2018**, 91, 375-389	1.7	16
462	Derivation of the Variants of the Burgers Model Using a Thermodynamic Approach and Appealing to the Concept of Evolving Natural Configurations. *Fluids*, **2018**, 3, 69	1.6	13
461	Chemo-mechanical coupling in curing and material-interphase evolution in multi-constituent materials. *Acta Mechanica*, **2018**, 229, 3393-3414	2.1	4
460	A damage initiation criterion for a class of viscoelastic solids. *Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences*, **2018**, 474, 20180064	2.4	2
459	Mechanical behaviour of asphalt binders at high temperatures and specification for rutting. *International Journal of Pavement Engineering*, **2017**, 18, 916-927	2.6	7
458	Nonlinear elasticity with limiting small strain for cracks subject to non-penetration. *Mathematics and Mechanics of Solids*, **2017**, 22, 1334-1346	2.3	26
457	Modeling the response of light-activated shape memory polymers. *Mathematics and Mechanics of Solids*, **2017**, 22, 1116-1143	2.3	10
456	Determination of pressure data from velocity data with a view towards its application in cardiovascular mechanics. Part 2: A study of aortic valve stenosis. *International Journal of Engineering Science*, **2017**, 113, 37-50	5.7	1
455	Quasi-linear viscoelastic modeling of light-activated shape memory polymers. *Journal of Intelligent Material Systems and Structures*, **2017**, 28, 2500-2515	2.3	10
454	Determination of pressure data from velocity data with a view towards its application in cardiovascular mechanics. Part 2. A study of aortic valve stenosis. *International Journal of Engineering Science*, **2017**, 114, 1-15	5.7	11
453	Wave patterns in a nonclassic nonlinearly-elastic bar under Riemann data. *International Journal of Non-Linear Mechanics*, **2017**, 91, 76-85	2.8	6

452	Contacting crack faces within the context of bodies exhibiting limiting strains. *JSIAM Letters*, **2017**, 9, 61-64	0.2	5
451	Implicit equations for thermoelastic bodies. *International Journal of Non-Linear Mechanics*, **2017**, 92, 144-152	2.2	8
450	A thermodynamically consistent constitutive equation for describing the response exhibited by several alloys and the study of a meaningful physical problem. *International Journal of Solids and Structures*, **2017**, 108, 1-10	3.1	19
449	Stabilized mixed three-field formulation for a generalized incompressible Oldroyd-B model. *International Journal for Numerical Methods in Fluids*, **2017**, 83, 704-734	1.9	11
448	A three dimensional finite deformation viscoelastic model for a layered polymeric material subject to blast. *Composite Structures*, **2017**, 159, 382-389	5.3	5
447	Representations for implicit constitutive relations describing non-dissipative response of isotropic materials. *Zeitschrift Fur Angewandte Mathematik Und Physik*, **2017**, 68, 1	1.6	18
446	Correction to On a new class of electroelastic bodies. I *Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences*, **2017**, 473,	2.4	78
445	A Short Review of Advances in the Modelling of Blood Rheology and Clot Formation. *Fluids*, **2017**, 2, 35	1.6	16
444	Two boundary value problems involving an inhomogeneous viscoelastic solid. *Discrete and Continuous Dynamical Systems - Series S*, **2017**, 10, 1351-1373	2.8	
443	Finite element modelling of field compaction of hot mix asphalt. Part I: Theory. *International Journal of Pavement Engineering*, **2016**, 17, 13-23	2.6	16
442	Finite element modelling of field compaction of hot mix asphalt. Part II: Applications. *International Journal of Pavement Engineering*, **2016**, 17, 24-38	2.6	16
441	On a possible methodology for identifying the initiation of damage of a class of polymeric materials. *Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences*, **2016**, 472, 20160231	2.4	6
440	On the lubrication approximation for a class of viscoelastic fluids. *International Journal of Non-Linear Mechanics*, **2016**, 87, 30-37	2.8	2
439	A nonlinear viscoelastic constitutive model for polymeric solids based on multiple natural configuration theory. *International Journal of Solids and Structures*, **2016**, 100-101, 95-110	3.1	20
438	Numerical and approximate analytical solutions for cylindrical and spherical annuli for a new class of elastic materials. *Archive of Applied Mechanics*, **2016**, 86, 1815-1826	2.2	4
437	A fully coupled model for diffusion-induced deformation in polymers. *Acta Mechanica*, **2016**, 227, 837-856	2.1	2
436	On the anti-plane state of stress near pointed or sharply radiused notches in strain limiting elastic materials: closed form solution and implications for fracture assessements. *International Journal of Fracture*, **2016**, 199, 169-184	2.3	10
435	Large deformations of a new class of incompressible elastic bodies. *Zeitschrift Fur Angewandte Mathematik Und Physik*, **2016**, 67, 1	1.6	5

434	Modelling the nonlinear viscoelastic response of asphalt binders. *International Journal of Pavement Engineering*, **2016**, 17, 123-132	2.6	9
433	On the consequences of the constraint of incompressibility with regard to a new class of constitutive relations for elastic bodies: small displacement gradient approximation. *Continuum Mechanics and Thermodynamics*, **2016**, 28, 293-303	3.5	10
432	On the nonlinear viscoelastic deformations of composites with prestressed inclusions. *Composite Structures*, **2016**, 149, 279-291	5.3	6
431	Determination of pressure data from velocity data with a view toward its application in cardiovascular mechanics. Part 1. Theoretical considerations. *International Journal of Engineering Science*, **2016**, 105, 108-127	5.7	28
430	A thermodynamically compatible model for describing asphalt binders: solutions of problems. *International Journal of Pavement Engineering*, **2016**, 17, 550-564	2.6	9
429	On the response of physical systems governed by non-linear ordinary differential equations to step input. *International Journal of Non-Linear Mechanics*, **2016**, 81, 207-221	2.8	7
428	A promising approach for modeling biological fibers. *Acta Mechanica*, **2016**, 227, 1609-1619	2.1	27
427	On stress-based piecewise elasticity for limited strain extensibility materials. *International Journal of Non-Linear Mechanics*, **2016**, 81, 303-309	2.8	3
426	On the flow of fluids through inhomogeneous porous media due to high pressure gradients. *International Journal of Non-Linear Mechanics*, **2016**, 78, 112-120	2.8	7
425	A Novel Approach to the Description of Constitutive Relations. *Frontiers in Materials*, **2016**, 3,	4	15
424	On the Flows of Fluids Defined through Implicit Constitutive Relations between the Stress and the Symmetric Part of the Velocity Gradient. *Fluids*, **2016**, 1, 5	1.6	1
423	An implicit three-dimensional model for describing the inelastic response of solids undergoing finite deformation. *Zeitschrift Fur Angewandte Mathematik Und Physik*, **2016**, 67, 1	1.6	18
422	A viscoelastic model for describing the response of biological fibers. *Acta Mechanica*, **2016**, 227, 3367-3380	2.1	3
421	Deformations of infinite slabs of non-linear viscoelastic solids containing an elliptic hole. *Meccanica*, **2016**, 51, 3067-3080	2.1	2
420	On the stability and uniqueness of the flow of a fluid through a porous medium. *Zeitschrift Fur Angewandte Mathematik Und Physik*, **2016**, 67, 1	1.6	3
419	Response of a class of mechanical oscillators described by a novel system of differential-algebraic equations. *Applications of Mathematics*, **2016**, 61, 79-102		2
418	On power-law fluids with the power-law index proportional to the pressure. *Applied Mathematics Letters*, **2016**, 62, 118-123	3.5	3
417	Nonlinear Viscoelastic Model for Describing the Response of Asphalt Binders within the Context of a Gibbs-Potential Based Thermodynamic Framework. *Journal of Engineering Mechanics - ASCE*, **2015**, 141, 04014116	2.4	12

416	Solutions of some boundary value problems for a new class of elastic bodies. Comparison with predictions of the classical theory of linearized elasticity: Part II. A problem with spherical symmetry. *Acta Mechanica*, **2015**, 226, 1807-1813	2.1	12
415	Wave propagation due to impact through layered polymer composites: Part 2 Planar problems. *Composite Structures*, **2015**, 131, 356-365	5.3	2
414	Exact, approximate and numerical solutions for a variant of Stokes? first problem for a new class of non-linear fluids. *International Journal of Non-Linear Mechanics*, **2015**, 77, 41-50	2.8	6
413	Vibrations of a lumped parameter mass spring dashpot system wherein the spring is described by a non-invertible elongation-force constitutive function. *International Journal of Non-Linear Mechanics*, **2015**, 76, 154-163	2.8	2
412	A note on the classification of anisotropy of bodies defined by implicit constitutive relations. *Mechanics Research Communications*, **2015**, 64, 38-41	2.2	17
411	A note on some new classes of constitutive relations for elastic bodies. *IMA Journal of Applied Mathematics*, **2015**, 80, 1287-1299	1	16
410	Inelastic response of solids described by implicit constitutive relations with nonlinear small strain elastic response. *International Journal of Plasticity*, **2015**, 71, 1-9	7.6	23
409	Solutions of some boundary value problems for a new class of elastic bodies undergoing small strains. Comparison with the predictions of the classical theory of linearized elasticity: Part I. Problems with cylindrical symmetry. *Acta Mechanica*, **2015**, 226, 1815-1838	2.1	21
408	A constitutive theory for multi-functional fiber reinforced composites. *Acta Mechanica*, **2015**, 226, 2671-2679	2.1	1
407	On a variant of the Maxwell and Oldroyd-B models within the context of a thermodynamic basis. *International Journal of Non-Linear Mechanics*, **2015**, 76, 42-47	2.8	28
406	Nonlinear Reynolds equation for hydrodynamic lubrication. *Applied Mathematical Modelling*, **2015**, 39, 5299-5309	4.5	24
405	Implicit constitutive relations for nonlinear magnetoelastic bodies. *Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences*, **2015**, 471, 20140959	2.4	18
404	On the approximation of isochoric motions of fluids under different flow conditions. *Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences*, **2015**, 471, 20150159	2.4	7
403	A thermodynamically compatible model for describing the response of asphalt binders. *International Journal of Pavement Engineering*, **2015**, 16, 297-314	2.6	15
402	On the use of compatibility conditions for the strain in linear and non-linear theories of mechanics. *Mathematics and Mechanics of Solids*, **2015**, 20, 614-618	2.3	6
401	On the determination of semi-inverse solutions of nonlinear Cauchy elasticity: The not so simple case of anti-plane shear. *International Journal of Engineering Science*, **2015**, 88, 3-14	5.7	13
400	Implicit constitutive models with a thermodynamic basis: a study of stress concentration. *Zeitschrift Fur Angewandte Mathematik Und Physik*, **2015**, 66, 191-208	1.6	20
399	Modeling fracture in the context of a strain-limiting theory of elasticity: A single plane-strain crack. *International Journal of Engineering Science*, **2015**, 88, 73-82	5.7	34

398	Existence of solutions for the anti-plane stress for a new class of strain-limiting elastic bodies. *Calculus of Variations and Partial Differential Equations*, **2015**, 54, 2115-2147	1.5	24
397	Study of a new class of nonlinear inextensible elastic bodies. *Zeitschrift Fur Angewandte Mathematik Und Physik*, **2015**, 66, 3663-3677	1.6	6
396	A nonlinear integral model for describing responses of viscoelastic solids. *International Journal of Solids and Structures*, **2015**, 58, 146-156	3.1	18
395	Remarks on the notion of pressure *International Journal of Non-Linear Mechanics*, **2015**, 71, 165-172	2.8	40
394	Wave propagation due to impact through layered polymer composites. *Composite Structures*, **2014**, 115, 1-11	5.3	7
393	On the nonlinear elastic response of bodies in the small strain range. *Acta Mechanica*, **2014**, 225, 1545-1553	2.3	63
392	On the natural structure of thermodynamic potentials and fluxes in the theory of chemically non-reacting binary mixtures. *Acta Mechanica*, **2014**, 225, 3157-3186	2.1	5
391	Circularly polarized wave propagation in a class of bodies defined by a new class of implicit constitutive relations. *Zeitschrift Fur Angewandte Mathematik Und Physik*, **2014**, 65, 1003-1010	1.6	12
390	A thermodynamic basis for the derivation of the Darcy, Forchheimer and Brinkman models for flows through porous media and their generalizations. *International Journal of Non-Linear Mechanics*, **2014**, 58, 162-166	2.8	34
389	Unsteady motions of a new class of elastic solids. *Wave Motion*, **2014**, 51, 833-843	1.8	24
388	Flow of a Burgers fluid due to time varying loads on deforming boundaries. *Journal of Non-Newtonian Fluid Mechanics*, **2014**, 210, 66-77	2.7	13
387	Universal relations for a new class of elastic bodies. *Mathematics and Mechanics of Solids*, **2014**, 19, 440-448	2.3	4
386	A numerical study of elastic bodies that are described by constitutive equations that exhibit limited strains. *International Journal of Solids and Structures*, **2014**, 51, 875-885	3.1	26
385	FLOW OF FLUIDS THROUGH POROUS MEDIA DUE TO HIGH PRESSURE GRADIENTS: PART 2 - UNSTEADY FLOWS. *Journal of Porous Media*, **2014**, 17, 751-762	2.9	5
384	An implicit thermomechanical theory based on a Gibbs potential formulation for describing the response of thermoviscoelastic solids. *International Journal of Engineering Science*, **2013**, 70, 15-28	5.7	26
383	A thermodynamic framework to model thixotropic materials. *International Journal of Non-Linear Mechanics*, **2013**, 55, 48-54	2.8	12
382	Modeling bodies that can only undergo isochoric motions subject to mechanical stimuli but are compressible or expansible with respect to thermal stimuli. *Zeitschrift Fur Angewandte Mathematik Und Physik*, **2013**, 64, 885-894	1.6	3
381	Restrictions placed on constitutive relations by angular momentum balance and Galilean invariance. *Zeitschrift Fur Angewandte Mathematik Und Physik*, **2013**, 64, 391-401	1.6	2

380	On the modeling of the non-linear response of soft elastic bodies. *International Journal of Non-Linear Mechanics*, **2013**, 56, 20-24	2.8	13
379	A methodology to assess the safety of automatically controlled vehicles. *International Journal of Advances in Engineering Sciences and Applied Mathematics*, **2013**, 5, 87-93	0.6	2
378	A new development and interpretation of the Navier–Stokes fluid which reveals why the Stokes assumption is inapt. *International Journal of Non-Linear Mechanics*, **2013**, 50, 141-151	2.8	46
377	Anti-plane stress state of a plate with a V-notch for a new class of elastic solids. *International Journal of Fracture*, **2013**, 179, 59-73	2.3	43
376	Particle-free bodies and point-free spaces. *International Journal of Engineering Science*, **2013**, 72, 155-176	5.7	4
375	On the response of Burgers fluid and its generalizations with pressure dependent moduli. *Mechanics of Time-Dependent Materials*, **2013**, 17, 147-169	1.2	1
374	On a new class of electroelastic bodies. I. *Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences*, **2013**, 469, 20120521	2.4	31
373	A note on the modeling of incompressible fluids with material moduli dependent on the mean normal stress. *International Journal of Non-Linear Mechanics*, **2013**, 52, 41-45	2.8	2
372	A new class of quasi-linear models for describing the nonlinear viscoelastic response of materials. *Acta Mechanica*, **2013**, 224, 2169-2183	2.1	31
371	A model for the flow of rock glaciers. *International Journal of Non-Linear Mechanics*, **2013**, 48, 59-64	2.8	11
370	Shear flows of a new class of power-law fluids. *Applications of Mathematics*, **2013**, 58, 153-177		23
369	Unsteady flows of a class of novel generalizations of the Navier–Stokes fluid. *Applied Mathematics and Computation*, **2013**, 219, 9935-9946	2.7	10
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