

Richard Kerner

List of Publications by Year in descending order

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73
papers

1,429
citations

516710

16
h-index

330143

37
g-index

75
all docs

75
docs citations

75
times ranked

409
citing authors

#	ARTICLE	IF	CITATIONS
1	Cosmology without singularity and nonlinear gravitational Lagrangians. <i>General Relativity and Gravitation</i> , 1982, 14, 453-469.	2.0	204
2	Noncommutative differential geometry of matrix algebras. <i>Journal of Mathematical Physics</i> , 1990, 31, 316-322.	1.1	199
3	Noncommutative differential geometry and new models of gauge theory. <i>Journal of Mathematical Physics</i> , 1990, 31, 323-330.	1.1	146
4	Hypersymmetry: A Z_3 -graded generalization of supersymmetry. <i>Journal of Mathematical Physics</i> , 1997, 38, 1650-1669.	1.1	109
5	Z_3 -graded algebras and the cubic root of the supersymmetry translations. <i>Journal of Mathematical Physics</i> , 1992, 33, 403-411.	1.1	100
6	The cubic chessboard. <i>Classical and Quantum Gravity</i> , 1997, 14, A203-A225.	4.0	96
7	On the glass transition temperature in covalent glasses. <i>Journal of Non-Crystalline Solids</i> , 1997, 210, 298-305.	3.1	63
8	Classical Glueballs in Non-Abelian Born-Infeld Theory. <i>Physical Review Letters</i> , 2000, 84, 5955-5958.	7.8	42
9	Z_3 -Graded exterior differential calculus and gauge theories of higher order. <i>Letters in Mathematical Physics</i> , 1996, 36, 441-454.	1.1	30
10	Stochastic matrix description of glass transition in ternary chalcogenide systems. <i>Journal of Non-Crystalline Solids</i> , 1998, 231, 111-119.	3.1	26
11	Nucleation and amorphous and crystalline growth: A dynamical model in two dimensions. <i>Physical Review B</i> , 1988, 37, 3881-3893.	3.2	25
12	Two simple rules for covalent binary glasses. <i>Physica B: Condensed Matter</i> , 1995, 215, 267-272.	2.7	25
13	A theoretical model of formation of covalent binary glasses. I. General setting. <i>Journal of Non-Crystalline Solids</i> , 1994, 176, 271-279.	3.1	24
14	Stochastic matrix description of the glass transition. <i>Journal of Physics Condensed Matter</i> , 2000, 12, 1641-1648.	1.8	23
15	TERNARY AND NON-ASSOCIATIVE STRUCTURES. <i>International Journal of Geometric Methods in Modern Physics</i> , 2008, 05, 1265-1294.	2.0	18
16	On certain realizations of the q -deformed exterior differential calculus. <i>Reports on Mathematical Physics</i> , 1999, 43, 179-194.	0.8	17
17	Model of rings in the amorphous SiO_2 . <i>Journal of Non-Crystalline Solids</i> , 1995, 182, 9-21.	3.1	16
18	INTERNAL SYMMETRY GROUPS OF CUBIC ALGEBRAS. <i>International Journal of Geometric Methods in Modern Physics</i> , 2012, 09, 1261007.	2.0	16

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19	Graded gauge theory. Communications in Mathematical Physics, 1983, 91, 213-234.	2.2	15
20	Shadow of noncommutativity. Journal of Mathematical Physics, 1998, 39, 730-738.	1.1	15
21	Non-Abelian generalization of Born-Infeld theory inspired by noncommutative geometry. Physical Review D, 2003, 68, .	4.7	13
22	The Quantum Nature of Lorentz Invariance. Universe, 2019, 5, 1.	2.5	13
23	Remarks on the curved-space description of amorphous solids. The Philosophical Magazine: Physics of Condensed Matter B, Statistical Mechanics, Electronic, Optical and Magnetic Properties, 1983, 47, 151-162.	0.6	11
24	Multiple fiber bundles and gauge theories of higher order. Journal of Mathematical Physics, 1983, 24, 356-360.	1.1	11
25	Phenomenological Lagrangian for the amorphous solid state. Physical Review B, 1983, 28, 5756-5761.	3.2	11
26	Structural properties of alkali-borate glasses derived from a theoretical model. The Philosophical Magazine: Physics of Condensed Matter B, Statistical Mechanics, Electronic, Optical and Magnetic Properties, 1995, 72, 535-550.	0.6	11
27	Convariant q-Differential Calculus and its Deformations at $qN = 1$. Letters in Mathematical Physics, 1998, 45, 161-176.	1.1	11
28	Nucleation and growth of fullerenes. Computational Materials Science, 1994, 2, 500-508.	3.0	10
29	Classification and Evolutionary Trends of Icosahedral Viral Capsids. Computational and Mathematical Methods in Medicine, 2008, 9, 175-181.	1.3	8
30	Ternary generalization of Pauli's principle and the Z_6 -graded algebras. Physics of Atomic Nuclei, 2017, 80, 529-541.	0.4	8
31	Covariant objects and invariant equations on fiber bundles. Journal of Mathematical Physics, 1980, 21, 2553.	1.1	7
32	Universal Z_N -graded differential calculus. Journal of Geometry and Physics, 1997, 23, 235-246.	1.4	7
33	Z_3 -graded colour Dirac equations for quarks, confinement and generalized Lorentz symmetries. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2019, 792, 233-237.	4.1	7
34	The structure of lithium silicon sulphide glass systems. Journal of Physics Condensed Matter, 1997, 9, 2551-2562.	1.8	6
35	Viscoelasticity behavior for finite deformations, using a consistent hypoelastic model based on Rivlin materials. Continuum Mechanics and Thermodynamics, 2016, 28, 1741-1758.	2.2	6
36	Deformations of the embedded Einstein spaces. General Relativity and Gravitation, 1978, 9, 257-270.	2.0	5

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37	Energy levels of the magnetic monopole in the Prasad-Sommerfield limit. Physical Review D, 1979, 19, 1243-1247.	4.7	5
38	Graded gauge theories over supersymmetric space. Journal of Mathematical Physics, 1983, 24, 361-368.	1.1	5
39	Geometrical approach to the glass transition problem. Journal of Non-Crystalline Solids, 1985, 71, 19-27.	3.1	5
40	Incremental constitutive models for elastoplastic materials undergoing finite deformations by using a four-dimensional formalism. International Journal of Engineering Science, 2016, 106, 199-219.	5.0	5
41	Internal quark symmetries and colour SU(3) entangled with Z3-graded Lorentz algebra. Nuclear Physics B, 2021, 972, 115529.	2.5	5
42	Z3-Grading and Ternary Algebraic Structures. , 1993, , 373-387.		5
43	A theoretical model of formation of covalent binary glasses. II. Structure of B2S3-nLi2S systems. Journal of Non-Crystalline Solids, 1994, 176, 280-287.	3.1	4
44	A model of glass transition in binary and ternary glasses. Journal of Molecular Liquids, 1997, 71, 175-186.	4.9	4
45	Born-Infeld inspired bosonic action in a noncommutative geometry. Physical Review D, 2004, 70, .	4.7	4
46	Algebras with Ternary Composition Law Combining \mathbb{Z}_2 and \mathbb{Z}_3 Gradings. Springer Proceedings in Mathematics and Statistics, 2020, , 13-45.	0.2	4
47	Graded non-commutative geometries. Journal of Geometry and Physics, 1993, 11, 325-335.	1.4	3
48	Spacetime Symmetries and \mathbb{Z}_3 -graded Quark Algebra. Journal of Physics: Conference Series, 2012, 343, 012056.	0.4	3
49	The Principle of Self-Similarity and Its Applications to the Description of Noncrystalline Matter. , 1998, , 323-337.		3
50	On the unicity of the 't Hooft's magnetic monopole. Letters in Mathematical Physics, 1977, 2, 49-53.	1.1	2
51	A model of immiscibility in $(\text{SiO}_2)_1 \hat{\alpha}^x (\text{Na}_2\text{O})_x$ glass based on spinodal decomposition. Philosophical Magazine, 2004, 84, 565-578.	1.6	2
52	Ternary Z2 and Z3 Graded Algebras and Generalized Color Dynamics. STEAM-H: Science, Technology, Engineering, Agriculture, Mathematics & Health, 2018, , 311-357.	0.0	2
53	Stochastic Matrix and Self-Organization in Glasses. , 2001, , 177-187.		2
54	Dynamique de la croissance de réseaux bi-dimensionnels. Journal De Physique, I, 1994, 4, 1491-1511.	1.2	2

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55	Covariant spacetime formalism for applications to thermo-hyperelasticity. Acta Mechanica, 2022, 233, 2309-2334.	2.1	2
56	Cosmology and Kaluza-Klein theories. , 1987, , 150-174.		1
57	STOCHASTIC DESCRIPTION OF AGGLOMERATION AND GROWTH PROCESSES IN GLASSES. International Journal of Modern Physics B, 2002, 16, 1987-1994.	2.0	1
58	Compositional trends in glass transition temperatures in inorganic network glasses. Journal of Non-Crystalline Solids, 2007, 353, 1221-1225.	3.1	1
59	APPROXIMATE GRAVITATIONAL WAVES VIA DEFORMATIONS OF EMBEDDINGS. International Journal of Modern Physics A, 2009, 24, 1465-1472.	1.5	1
60	A Z3 generalization of Pauli's principle, quark algebra and the Lorentz invariance. , 2012, , .		1
61	Ternary Z_3 -graded generalization of Heisenberg's algebra. Journal of Physics: Conference Series, 2015, 597, 012049.	0.4	1
62	Towards a Z_3 -graded approach to quarks' symmetries. Journal of Physics: Conference Series, 2019, 1416, 012016.	0.4	1
63	Invariance and Symmetries of Cubic and Ternary Algebras. Springer Proceedings in Mathematics and Statistics, 2014, , 617-637.	0.2	1
64	Magnetic monopole in the massless limit. Physical Review D, 1981, 24, 2336-2337.	4.7	0
65	Topological Origin of the Surface Singularities in Glasses. Materials Research Society Symposia Proceedings, 1985, 61, 39.	0.1	0
66	The Dalton-Maxwell-Pauling Recipe for Window Glass. , 2002, , 171-187.		0
67	Gravitational waves as deformations of embedded Einstein spaces. Classical and Quantum Gravity, 2009, 26, 235007.	4.0	0
68	Discrete Groups and Internal Symmetries of Icosahedral Viral Capsids. Computational and Mathematical Biophysics, 2014, 2, .	1.1	0
69	Ternary generalization of Heisenberg's algebra. Journal of Physics: Conference Series, 2015, 624, 012021.	0.4	0
70	Hamilton-Jacobi approach to cosmology with nonlinear sigma model. International Journal of Geometric Methods in Modern Physics, 2016, 13, 1640004.	2.0	0
71	Space-Time Thermo-Mechanics for a Material Continuum. Lecture Notes in Computer Science, 2021, , 219-226.	1.3	0
72	Hypersymmetry. , 2004, , 197-197.		0

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73	Non-commutative Extensions of Classical Theories in Physics. , 2000, , 130-157.		0