Rutwig Campoamor-Stursberg

List of Publications by Year
in descending order

102 papers	589 citations	623734 14 h-index	839539 18 g-index
102 all docs	102 docs citations	102 times ranked	167 citing authors

#	Article	IF	Citations
1	Algorithmic construction of solvable rigid Lie algebras determined by generating functions. Linear and Multilinear Algebra, 2022, 70, 280-296.	1.0	2
2	Quadratic algebras as commutants of algebraic Hamiltonians in the enveloping algebra of SchrÃ¶dinger algebras. Annals of Physics, 2022, 437, 168694.	2.8	4
3	An overview of generalised Kac-Moody algebras on compact real manifolds. Journal of Geometry and Physics, 2022, , 104624.	1.4	3
4	Hidden symmetry algebra and construction of quadratic algebras of superintegrable systems. Annals of Physics, 2021, 424, 168378.	2.8	4
5	Maximally superintegrable systems in flat three-dimensional space are linearizable. Journal of Mathematical Physics, 2021, 62, 012702.	1.1	3
6	Poissonâ€“Hopf deformations of Lieâ€“Hamilton systems revisited: deformed superposition rules and applications to the oscillator algebra. Journal of Physics A: Mathematical and Theoretical, 2021, 54, 205202.	2.1	2
7	The method of virtual copies and contractions of simple Lie algebras. Journal of Physics: Conference Series, 2020, 1612, 012006.	0.4	0
8	Trace formulas for the Casimir operators of the unextended SchrÃ¶dinger algebra S(N). Journal of Mathematical Physics, 2020, 61, 043508.	1.1	0
9	Lagrangian density and local symmetries of inhomogeneous hyperconical universes. Classical and Quantum Gravity, 2020, 37, 205015.	4.0	2
10	Some empirical formulae for the degeneracy separation in the Clebsch-Gordan problem of ${mathfrak{s}}{mathfrak{u}}(3)$. Journal of Physics: Conference Series, 2019, 1194, 012019.	0.4	4
11	Generalized conformal pseudo-Galilean algebras and their Casimir operators. Journal of Physics A: Mathematical and Theoretical, 2019, 52, 475202.	2.1	4
12	The external labelling problem and Clebschâ€“Gordan series of semisimple Lie algebras. Journal of Physics A: Mathematical and Theoretical, 2019, 52, 125201.	2.1	1
13	Some Features of Rank One Real Solvable Cohomologically Rigid Lie Algebras with a Nilradical Contracting onto the Model Filiform Lie Algebra Qn. Axioms, 2019, 8, 10.	1.9	3
14	Reduction by invariants and projection of linear representations of Lie algebras applied to the construction of nonlinear realizations. Journal of Mathematical Physics, 2018, 59, 033502.	1.1	0
15	An inverse problem in Lagrangian dynamics based on the preservation of symmetry groups: application to systems with a position-dependent mass. Acta Mechanica, 2018, 229, 211-229.	2.1	1
16	Rigidity-preserving and cohomology-decreasing extensions of solvable rigid Lie algebras. Linear and Multilinear Algebra, 2018, 66, 525-539.	1.0	6
17	Poissonâ€“Hopf algebra deformations of Lieâ€“Hamilton systems. Journal of Physics A: Mathematical and Theoretical, 2018, 51, 065202.	2.1	9
18	Invariant functions of vector field realizations of Lie algebras and some applications to representation theory and dynamical systems. Journal of Physics: Conference Series, 2018, 1071, 012005.	0.4	0

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19	New examples of rank one solvable real rigid Lie algebras possessing a nonvanishing Chevalley cohomology. Applied Mathematics and Computation, 2018, 339, 431-440.	2.2	4
20	A Unified Approach to Poissonâ€“Hopf Deformations of Lieâ€“Hamilton Systems Based on $$mathfrak {sl}$$(2). Springer Proceedings in Mathematics and Statistics, 2018, , 347-366.	0.2	1
21	Unitary representations of three dimensional Lie groups revisited: A short tutorial via harmonic functions. Journal of Geometry and Physics, 2017, 114, 534-553.	1.4	2
22	Symmetry-preserving perturbations of the Bateman Lagrangian and dissipative systems. Physics of Atomic Nuclei, 2017, 80, 321-328.	0.4	1
23	FUNCTIONAL REALIZATIONS OF LIE ALGEBRAS AS NOETHER POINT SYMMETRIES OF SYSTEMS. Acta Polytechnica, 2017, 57, 373.	0.6	0
24	Low Dimensional Vessiot-Guldberg-Lie Algebras of Second-Order Ordinary Differential Equations. Symmetry, 2016, 8, 15.	2.2	7
25	A functional realization of ??(3, â„) providing minimal Vessiotâ€“Guldbergâ€“Lie algebras of nonlinear second-order ordinary differential equations as proper subalgebras. Journal of Mathematical Physics, 2016, 57, .	1.1	5
26	Cohomologically rigid solvable Lie algebras with a nilradical of arbitrary characteristic sequence. Linear Algebra and Its Applications, 2016, 488, 135-147.	0.9	14
27	Perturbations of Lagrangian systems based on the preservation of subalgebras of Noether symmetries. Acta Mechanica, 2016, 227, 1941-1956.	2.1	7
28	An alternative approach to systems of second-order ordinary differential equations with maximal symmetry. Realizations of <mml:math altimg="si38.gif" overflow="scroll" xmlns:xocs="http://www.elsevier.com/xml/xocs/dtd" xmlns:xs="http://www.w3.org/2001/XMLSchema" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xmlns="http://www.elsevier.com/xml/ja/dtd" xmlns:ja="http://www.elsevier.com/xml/ja/dtd" xmlns:mml="http://www.w3.org/1998/Math/MathML" xmlns:tb="http://www.elsevier.com/xml/common/table/dtd" xmln. Communications in Nonlinear Scienc	3.3	4
29	Symmetry preserving discretization of ordinary differential equations. Large symmetry groups and higher order equations. Journal of Physics A: Mathematical and Theoretical, 2016, 49, 035201.	2.1	18
30	Generating functions and existence of contact symmetries of third order scalar ordinary differential equations. Applied Mathematics and Computation, 2016, 273, 1179-1189.	2.2	0
31	Generalized harmonic functions and unitary representations of low dimensional Lie groups. Journal of Physics: Conference Series, 2015, 597, 012021.	0.4	0
32	An Elementary Derivation of the Matrix Elements of Real Irreducible Representations of so(3). Symmetry, 2015, 7, 1655-1669.	2.2	3
33	Classification of solvable real rigid Lie algebras with a nilradical of dimensionnâ‰¤6. Linear Algebra and Its Applications, 2015, 471, 54-75.	0.9	4
34	An irreducible component of the variety of Leibniz algebras having trivial intersection with the variety of Lie algebras. Linear and Multilinear Algebra, 2014, 62, 1450-1459.	1.0	1
35	Superposition of super-integrable pseudo-Euclidean potentials in N = 2 with a fundamental constant of motion of arbitrary order in the momenta. Journal of Mathematical Physics, 2014, 55, .	1.1	8
36	On certain types of point symmetries of systems of second-order ordinary differential equations. Communications in Nonlinear Science and Numerical Simulation, 2014, 19, 2602-2613.	3.3	4

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37	The Madelung rule, Regge-like sequences and the conformal Lie algebra. Journal of Physics: Conference Series, 2014, 538, 012004.	0.4	0
38	su(2) -expansion of the Lorentz algebra so(3,1). Canadian Journal of Physics, 2013, 91, 589-598.	1.1	1
39	Linearizing Systems of Second-Order ODEs via Symmetry Generators Spanning a Simple Subalgebra. Acta Applicandae Mathematicae, 2013, 127, 105-115.	1.0	4
40	On a complete rigid Leibniz non-Lie algebra in arbitrary dimension. Linear Algebra and Its Applications, 2013, 438, 3397-3407.	0.9	9
41	Two-body homogeneous rational Gaudin models and the missing label problem. Journal of Physics A: Mathematical and Theoretical, 2013, 46, 335201.	2.1	1
42	N = 2 INTEGRABLE SYSTEMS AND FIRST INTEGRALS CONSTRAINED BY SCALING SYMMETRIES. International Journal of Geometric Methods in Modern Physics, 2013, 10, 1360006.	2.0	3
43	Higher-order superintegrability of a Holt related potential. Journal of Physics A: Mathematical and Theoretical, 2013, 46, 435202.	2.1	10
44	Branching rules of sp(6) â†“ sp(4) Ã— sp(2) and bases of eigenstates. Lithuanian Journal of Physics, 2013, 53, 71-83.	0.4	1
45	A unified approach for plasticity yield criteria on the tangent space to the Cauchy tensor. Mathematics and Mechanics of Solids, 2012, 17, 83-103.	2.4	1
46	Orthonormal bases of states in terms of labelling and Racah operators. Journal of Physics: Conference Series, 2012, 343, 012021.	0.4	1
47	Actionâ€“angle variables, ladder operators and coherent states. Physics Letters, Section A: General, Atomic and Solid State Physics, 2012, 376, 2515-2521.	2.1	7
48	Projective representations of the inhomogeneous Hamilton group: Noninertial symmetry in quantum mechanics. Annals of Physics, 2012, 327, 74-101.	2.8	1
49	Systems of second-order linear ODEâ€™s with constant coefficients and their symmetries II. The case of non-diagonal coefficient matrices. Communications in Nonlinear Science and Numerical Simulation, 2012, 17, 1178-1193.	3.3	17
50	Internal labelling problem: an algorithmic procedure. Journal of Physics A: Mathematical and Theoretical, 2011, 44, 025204.	2.1	14
51	Hidden quartic symmetry inN= 2 supersymmetry. Journal of Physics: Conference Series, 2011, 284, 012015.	0.4	0
52	Complete Labeling of G 2-Representations. International Journal of Theoretical Physics, 2011, 50, 2153-2160.	1.2	2
53	Systems of second-order linear ODEâ€™s with constant coefficients and their symmetries. Communications in Nonlinear Science and Numerical Simulation, 2011, 16, 3015-3023.	3.3	20
54	Classification of Lie algebras with naturally graded quasi-filiform nilradicals. Journal of Geometry and Physics, 2011, 61, 2168-2186.	1.4	27

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55	Title is missing!. Acta Physica Polonica B, 2011, 42, 1797.	0.8	1
56	Parafermions, Ternary Algebras and Their Associated Superspace. , 2010, , .		0
57	Contraction-based classification of supersymmetric extensions of kinematical lie algebras. Physics of Atomic Nuclei, 2010, 73, 264-268.	0.4	3
58	COMPOSITION ALGEBRAS AND THE TWO FACES OF G₂. International Journal of Geometric Methods in Modern Physics, 2010, 07, 367-378.	2.0	5
59	Solvable Lie algebras with an mathbb {N}-graded nilradical of maximal nilpotency degree and their invariants. Journal of Physics A: Mathematical and Theoretical, 2010, 43, 145202.	2.1	10
60	Unexpected features of supersymmetry with central charges. Journal of Physics A: Mathematical and Theoretical, 2010, 43, 455201.	2.1	1
61	The nonrelativistic limit of (central-extended) PoincarÃ© group and some consequences for quantum actualization. Journal of Mathematical Physics, 2009, 50, 103526.	1.1	4
62	Symplectic Forms on Six-dimensional Real Solvable Lie Algebras I. Algebra Colloquium, 2009, 16, 253-266.	0.2	7
63	Commutativity of missing label operators in terms of Berezin brackets. Journal of Physics A: Mathematical and Theoretical, 2009, 42, 235203.	2.1	8
64	Virtual copies of semisimple Lie algebras in enveloping algebras of semidirect products and Casimir operators. Journal of Physics A: Mathematical and Theoretical, 2009, 42, 065205.	2.1	10
65	Parafermions for higher order extensions of the PoincarÃ© algebra and their associated superspace. Journal of Physics A: Mathematical and Theoretical, 2009, 42, 495202.	2.1	6
66	Inequivalent sets of commuting missing label operators for the nuclear surfon model. Journal of Physics: Conference Series, 2009, 175, 012008.	0.4	1
67	Color Lie algebras and Lie algebras of order F. Journal of Generalized Lie Theory and Applications, 2009, 3, 113-130.	0.1	22
68	Workshop on Higher Symmetries in Physics. Journal of Physics: Conference Series, 2009, 175, 011001.	0.4	0
69	Quasi-Classical Lie Algebras and their Contractions. International Journal of Theoretical Physics, 2008, 47, 583-598.	1.2	3
70	Contractions d'algÃ¨bres de Jordan en dimension 2. Journal of Algebra, 2008, 319, 2395-2409.	0.7	14
71	Contractions and deformations of quasiclassical Lie algebras preserving a nondegenerate quadratic Casimir operator. Physics of Atomic Nuclei, 2008, 71, 830-835.	0.4	4
72	Casimir operators induced by the Maurerâ€“Cartan equations. Journal of Physics A: Mathematical and Theoretical, 2008, 41, 365207.	2.1	2

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73	Kinematical superalgebras and Lie algebras of order 3. Journal of Mathematical Physics, 2008, 49, 063506.	1.1	14
74	Obtainment of internal labelling operators as broken Casimir operators by means of contractions related to reduction chains in semisimple Lie algebras. Journal of Physics: Conference Series, 2008, 128, 012052.	0.4	5
75	Non-solvable contractions of semisimple Lie algebras in low dimension. Journal of Physics A: Mathematical and Theoretical, 2007, 40, 5355-5372.	2.1	6
76	Internal labelling operators and contractions of Lie algebras. Journal of Physics A: Mathematical and Theoretical, 2007, 40, 14773-14790.	2.1	12
77	Solvable Lie algebras, products by generators, and some of its applications. Journal of Mathematical Sciences, 2007, 144, 4423-4430.	0.4	0
78	AlgÃ¨bres de Lie rÃ©solubles rÃ©elles algÃ©briquement rigides. Monatshefte Fur Mathematik, 2007, 152, 187-195.	0.9	7
79	A comment concerning cohomology and invariants of Lie algebras with respect to contractions and deformations. Physics Letters, Section A: General, Atomic and Solid State Physics, 2007, 362, 360-367.	2.1	5
80	Solvable Lie algebras with naturally graded nilradicals and their invariants. Journal of Physics A, 2006, 39, 1339-1355.	1.6	27
81	Determinantal formulae for the Casimir operators of inhomogeneous Lie algebras. Journal of Physics A, 2006, 39, 13841-13841.	1.6	0
82	Les algÃ¨bres de Lie rÃ©solubles rigides rÃ©elles ne sont pas nÃ©cessairement complÃ¨tement rÃ©solubles. Linear Algebra and Its Applications, 2006, 418, 657-664.	0.9	4
83	Determinantal formulae for the Casimir operators of inhomogeneous Lie algebras. Journal of Physics A, 2006, 39, 2325-2337.	1.6	9
84	Application of the Gel'fand Matrix Method to the Missing Label Problem in Classical Kinematical Lie Algebras. Symmetry, Integrability and Geometry: Methods and Applications (SIGMA), 2006, , .	0.5	1
85	Invariant Tensor Formulas via Chord Diagrams. Journal of Mathematical Sciences, 2005, 128, 3018-3029.	0.4	3
86	Simple Completable Contractions of Nilpotent Lie Algebras. Journal of Mathematical Sciences, 2005, 128, 3114-3120.	0.4	0
87	A new matrix method for the Casimir operators of the Lie algebras and. Journal of Physics A, 2005, 38, 4187-4208.	1.6	17
88	Some Remarks Concerning the Invariants of Rank One Solvable Real Lie Algebras. Algebra Colloquium, 2005, 12, 497-518.	0.2	16
89	The structure of the invariants of perfect Lie algebras II. Journal of Physics A, 2004, 37, 3627-3643.	1.6	4
90	Intrinsic formulae for the Casimir operators of semidirect products of the exceptional Lie algebraG2and a Heisenberg Lie algebra. Journal of Physics A, 2004, 37, 9451-9466.	1.6	4

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91	An alternative interpretation of the Beltramettiâ€“Blasi formula by means of differential forms. Physics Letters, Section A: General, Atomic and Solid State Physics, 2004, 327, 138-145.	2.1	23
92	The structure of the invariants of perfect Lie algebras. Journal of Physics A, 2004, 37, 7977-7977.	1.6	0
93	Avoiding ergodicity and turbulence in vector fields. Physics Letters, Section A: General, Atomic and Solid State Physics, 2003, 317, 242-251.	2.1	0
94	Une propriÃ©tÃ© topologique de l'ensemble des algÃ¨bres de Lie caractÃ©ristiquement nilpotentes. Comptes Rendus Mathematique, 2003, 337, 757-759.	0.3	0
95	On the product by generators of characteristically nilpotent Lie S-algebras. Journal of Pure and Applied Algebra, 2003, 184, 155-164.	0.6	1
96	A graph theoretical determination of solvable complete rigid Lie algebras. Linear Algebra and Its Applications, 2003, 372, 53-66.	0.9	5
97	An extension based determinantal method to compute Casimir operators of Lie algebras. Physics Letters, Section A: General, Atomic and Solid State Physics, 2003, 312, 211-219.	2.1	11
98	Non-semisimple Lie algebras with Levi factor Âo (3), ÂÂ(2, Â) and their invariants. Journal of Physics A, 2003, 36, 1357-1369.	1.6	17
99	On the invariants of some solvable rigid Lie algebras. Journal of Mathematical Physics, 2003, 44, 771.	1.1	12
100	The structure of the invariants of perfect Lie algebras. Journal of Physics A, 2003, 36, 6709-6723.	1.6	7
101	Invariants of solvable rigid Lie algebras up to dimension 8. Journal of Physics A, 2002, 35, 6293-6306.	1.6	21
102	Two-step solvable Lie algebras and weight graphs. Transformation Groups, 2002, 7, 307-320.	0.7	7