

# Rutwig Campoamor-Stursberg

## List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/8573418/publications.pdf>

Version: 2024-02-01

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	Solvable Lie algebras with naturally graded nilradicals and their invariants. Journal of Physics A, 2006, 39, 1339-1355.	1.6	27
2	Classification of Lie algebras with naturally graded quasi-filiform nilradicals. Journal of Geometry and Physics, 2011, 61, 2168-2186.	1.4	27
3	An alternative interpretation of the Beltrametti-Blasi formula by means of differential forms. Physics Letters, Section A: General, Atomic and Solid State Physics, 2004, 327, 138-145.	2.1	23
4	Color Lie algebras and Lie algebras of order F. Journal of Generalized Lie Theory and Applications, 2009, 3, 113-130.	0.1	22
5	Invariants of solvable rigid Lie algebras up to dimension 8. Journal of Physics A, 2002, 35, 6293-6306.	1.6	21
6	Systems of second-order linear ODEs with constant coefficients and their symmetries. Communications in Nonlinear Science and Numerical Simulation, 2011, 16, 3015-3023.	3.3	20
7	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
8	Non-semisimple Lie algebras with Levi factor $\hat{A}_0(3)$ , $\hat{A}_0(2, \hat{A})$ and their invariants. Journal of Physics A, 2003, 36, 1357-1369.	1.6	17
9	A new matrix method for the Casimir operators of the Lie algebras and. Journal of Physics A, 2005, 38, 4187-4208.	1.6	17
10	Systems of second-order linear ODEs 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
11	Some Remarks Concerning the Invariants of Rank One Solvable Real Lie Algebras. Algebra Colloquium, 2005, 12, 497-518.	0.2	16
12	Contractions d'algèbres de Jordan en dimension 2. Journal of Algebra, 2008, 319, 2395-2409.	0.7	14
13	Kinematical superalgebras and Lie algebras of order 3. Journal of Mathematical Physics, 2008, 49, 063506.	1.1	14
14	Internal labelling problem: an algorithmic procedure. Journal of Physics A: Mathematical and Theoretical, 2011, 44, 025204.	2.1	14
15	Cohomologically rigid solvable Lie algebras with a nilradical of arbitrary characteristic sequence. Linear Algebra and Its Applications, 2016, 488, 135-147.	0.9	14
16	On the invariants of some solvable rigid Lie algebras. Journal of Mathematical Physics, 2003, 44, 771.	1.1	12
17	Internal labelling operators and contractions of Lie algebras. Journal of Physics A: Mathematical and Theoretical, 2007, 40, 14773-14790.	2.1	12
18	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

#	ARTICLE	IF	CITATIONS
19	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
20	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
21	Higher-order superintegrability of a Holt related potential. Journal of Physics A: Mathematical and Theoretical, 2013, 46, 435202.	2.1	10
22	Determinantal formulae for the Casimir operators of inhomogeneous Lie algebras. Journal of Physics A, 2006, 39, 2325-2337.	1.6	9
23	On a complete rigid Leibniz non-Lie algebra in arbitrary dimension. Linear Algebra and Its Applications, 2013, 438, 3397-3407.	0.9	9
24	Poisson-Hopf algebra deformations of Lie-Hamilton systems. Journal of Physics A: Mathematical and Theoretical, 2018, 51, 065202.	2.1	9
25	Commutativity of missing label operators in terms of Berezin brackets. Journal of Physics A: Mathematical and Theoretical, 2009, 42, 235203.	2.1	8
26	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
27	Two-step solvable Lie algebras and weight graphs. Transformation Groups, 2002, 7, 307-320.	0.7	7
28	The structure of the invariants of perfect Lie algebras. Journal of Physics A, 2003, 36, 6709-6723.	1.6	7
29	AlgÈbres de Lie rÈsolubles rÈelles algÈbriquement rigides. Monatshefte Fur Mathematik, 2007, 152, 187-195.	0.9	7
30	Symplectic Forms on Six-dimensional Real Solvable Lie Algebras I. Algebra Colloquium, 2009, 16, 253-266.	0.2	7
31	Action-angle variables, ladder operators and coherent states. Physics Letters, Section A: General, Atomic and Solid State Physics, 2012, 376, 2515-2521.	2.1	7
32	Low Dimensional Vessiot-Guldberg-Lie Algebras of Second-Order Ordinary Differential Equations. Symmetry, 2016, 8, 15.	2.2	7
33	Perturbations of Lagrangian systems based on the preservation of subalgebras of Noether symmetries. Acta Mechanica, 2016, 227, 1941-1956.	2.1	7
34	Non-solvable contractions of semisimple Lie algebras in low dimension. Journal of Physics A: Mathematical and Theoretical, 2007, 40, 5355-5372.	2.1	6
35	Parafermions for higher order extensions of the PoincarÈ algebra and their associated superspace. Journal of Physics A: Mathematical and Theoretical, 2009, 42, 495202.	2.1	6
36	Rigidity-preserving and cohomology-decreasing extensions of solvable rigid Lie algebras. Linear and Multilinear Algebra, 2018, 66, 525-539.	1.0	6

#	ARTICLE	IF	CITATIONS
37	A graph theoretical determination of solvable complete rigid Lie algebras. <i>Linear Algebra and Its Applications</i> , 2003, 372, 53-66.	0.9	5
38	A comment concerning cohomology and invariants of Lie algebras with respect to contractions and deformations. <i>Physics Letters, Section A: General, Atomic and Solid State Physics</i> , 2007, 362, 360-367.	2.1	5
39	Obtainment of internal labelling operators as broken Casimir operators by means of contractions related to reduction chains in semisimple Lie algebras. <i>Journal of Physics: Conference Series</i> , 2008, 128, 012052.	0.4	5
40	COMPOSITION ALGEBRAS AND THE TWO FACES OF $G_{<sub>2</sub>}$ . <i>International Journal of Geometric Methods in Modern Physics</i> , 2010, 07, 367-378.	2.0	5
41	A functional realization of $\mathfrak{so}(3, \hat{a}, \hat{b})$ providing minimal Vessiot-Guldberg Lie algebras of nonlinear second-order ordinary differential equations as proper subalgebras. <i>Journal of Mathematical Physics</i> , 2016, 57, .	1.1	5
42	The structure of the invariants of perfect Lie algebras II. <i>Journal of Physics A</i> , 2004, 37, 3627-3643.	1.6	4
43	Intrinsic formulae for the Casimir operators of semidirect products of the exceptional Lie algebra $G_2$ and a Heisenberg Lie algebra. <i>Journal of Physics A</i> , 2004, 37, 9451-9466.	1.6	4
44	Les algèbres de Lie résolubles rigides elles ne sont pas nécessairement complètement résolubles. <i>Linear Algebra and Its Applications</i> , 2006, 418, 657-664.	0.9	4
45	Contractions and deformations of quasiclassical Lie algebras preserving a nondegenerate quadratic Casimir operator. <i>Physics of Atomic Nuclei</i> , 2008, 71, 830-835.	0.4	4
46	The nonrelativistic limit of (central-extended) Poincaré group and some consequences for quantum actualization. <i>Journal of Mathematical Physics</i> , 2009, 50, 103526.	1.1	4
47	Linearizing Systems of Second-Order ODEs via Symmetry Generators Spanning a Simple Subalgebra. <i>Acta Applicandae Mathematicae</i> , 2013, 127, 105-115.	1.0	4
48	On certain types of point symmetries of systems of second-order ordinary differential equations. <i>Communications in Nonlinear Science and Numerical Simulation</i> , 2014, 19, 2602-2613.	3.3	4
49	Classification of solvable real rigid Lie algebras with a nilradical of dimension $n \geq 6$ . <i>Linear Algebra and Its Applications</i> , 2015, 471, 54-75.	0.9	4
50	An alternative approach to systems of second-order ordinary differential equations with maximal symmetry. Realizations of $\langle \mathfrak{sl}(3, \mathbb{C}) \oplus \mathfrak{h} \rangle$ . <i>Communications in Nonlinear Science</i> . <small>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.</small>	3.3	4
51	New examples of rank one solvable real rigid Lie algebras possessing a nonvanishing Chevalley cohomology. <i>Applied Mathematics and Computation</i> , 2018, 339, 431-440.	2.2	4
52	Some empirical formulae for the degeneracy separation in the Clebsch-Gordan problem of $\mathfrak{su}(3)$ . <i>Journal of Physics: Conference Series</i> , 2019, 1194, 012019.	0.4	4
53	Generalized conformal pseudo-Galilean algebras and their Casimir operators. <i>Journal of Physics A: Mathematical and Theoretical</i> , 2019, 52, 475202.	2.1	4
54	Hidden symmetry algebra and construction of quadratic algebras of superintegrable systems. <i>Annals of Physics</i> , 2021, 424, 168378.	2.8	4

#	ARTICLE	IF	CITATIONS
55	Quadratic algebras as commutants of algebraic Hamiltonians in the enveloping algebra of Schrödinger algebras. <i>Annals of Physics</i> , 2022, 437, 168694.	2.8	4
56	Invariant Tensor Formulas via Chord Diagrams. <i>Journal of Mathematical Sciences</i> , 2005, 128, 3018-3029.	0.4	3
57	Quasi-Classical Lie Algebras and their Contractions. <i>International Journal of Theoretical Physics</i> , 2008, 47, 583-598.	1.2	3
58	Contraction-based classification of supersymmetric extensions of kinematical lie algebras. <i>Physics of Atomic Nuclei</i> , 2010, 73, 264-268.	0.4	3
59	N = 2 INTEGRABLE SYSTEMS AND FIRST INTEGRALS CONSTRAINED BY SCALING SYMMETRIES. <i>International Journal of Geometric Methods in Modern Physics</i> , 2013, 10, 1360006.	2.0	3
60	An Elementary Derivation of the Matrix Elements of Real Irreducible Representations of $so(3)$ . <i>Symmetry</i> , 2015, 7, 1655-1669.	2.2	3
61	Some Features of Rank One Real Solvable Cohomologically Rigid Lie Algebras with a Nilradical Contracting onto the Model Filiform Lie Algebra $Q_n$ . <i>Axioms</i> , 2019, 8, 10.	1.9	3
62	Maximally superintegrable systems in flat three-dimensional space are linearizable. <i>Journal of Mathematical Physics</i> , 2021, 62, 012702.	1.1	3
63	An overview of generalised Kac-Moody algebras on compact real manifolds. <i>Journal of Geometry and Physics</i> , 2022, , 104624.	1.4	3
64	Casimir operators induced by the Maurer-Cartan equations. <i>Journal of Physics A: Mathematical and Theoretical</i> , 2008, 41, 365207.	2.1	2
65	Complete Labeling of $G_2$ -Representations. <i>International Journal of Theoretical Physics</i> , 2011, 50, 2153-2160.	1.2	2
66	Unitary representations of three dimensional Lie groups revisited: A short tutorial via harmonic functions. <i>Journal of Geometry and Physics</i> , 2017, 114, 534-553.	1.4	2
67	Poisson-Hopf deformations of Lie-Hamilton systems revisited: deformed superposition rules and applications to the oscillator algebra. <i>Journal of Physics A: Mathematical and Theoretical</i> , 2021, 54, 205202.	2.1	2
68	Algorithmic construction of solvable rigid Lie algebras determined by generating functions. <i>Linear and Multilinear Algebra</i> , 2022, 70, 280-296.	1.0	2
69	Lagrangian density and local symmetries of inhomogeneous hyperconical universes. <i>Classical and Quantum Gravity</i> , 2020, 37, 205015.	4.0	2
70	On the product by generators of characteristically nilpotent Lie S-algebras. <i>Journal of Pure and Applied Algebra</i> , 2003, 184, 155-164.	0.6	1
71	Inequivalent sets of commuting missing label operators for the nuclear surfon model. <i>Journal of Physics: Conference Series</i> , 2009, 175, 012008.	0.4	1
72	Unexpected features of supersymmetry with central charges. <i>Journal of Physics A: Mathematical and Theoretical</i> , 2010, 43, 455201.	2.1	1

#	ARTICLE	IF	CITATIONS
73	Title is missing!. Acta Physica Polonica B, 2011, 42, 1797.	0.8	1
74	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
75	Orthonormal bases of states in terms of labelling and Racah operators. Journal of Physics: Conference Series, 2012, 343, 012021.	0.4	1
76	Projective representations of the inhomogeneous Hamilton group: Noninertial symmetry in quantum mechanics. Annals of Physics, 2012, 327, 74-101.	2.8	1
77	$su(2)$ -expansion of the Lorentz algebra $so(3,1)$ . Canadian Journal of Physics, 2013, 91, 589-598.	1.1	1
78	Two-body homogeneous rational Gaudin models and the missing label problem. Journal of Physics A: Mathematical and Theoretical, 2013, 46, 335201.	2.1	1
79	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
80	Symmetry-preserving perturbations of the Bateman Lagrangian and dissipative systems. Physics of Atomic Nuclei, 2017, 80, 321-328.	0.4	1
81	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
82	The external labelling problem and Clebsch-Gordan series of semisimple Lie algebras. Journal of Physics A: Mathematical and Theoretical, 2019, 52, 125201.	2.1	1
83	Branching rules of $sp(6) \hat{+} sp(4) \hat{-} sp(2)$ and bases of eigenstates. Lithuanian Journal of Physics, 2013, 53, 71-83.	0.4	1
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	A Unified Approach to Poisson-Hopf Deformations of Lie-Hamilton Systems Based on $\mathfrak{sl}(2)$ . Springer Proceedings in Mathematics and Statistics, 2018, , 347-366.	0.2	1
86	Avoiding ergodicity and turbulence in vector fields. Physics Letters, Section A: General, Atomic and Solid State Physics, 2003, 317, 242-251.	2.1	0
87	Une propri�t� topologique de l'ensemble des alg�bres de Lie caract�ristiquement nilpotentes. Comptes Rendus Mathematique, 2003, 337, 757-759.	0.3	0
88	The structure of the invariants of perfect Lie algebras. Journal of Physics A, 2004, 37, 7977-7977.	1.6	0
89	Simple Completable Contractions of Nilpotent Lie Algebras. Journal of Mathematical Sciences, 2005, 128, 3114-3120.	0.4	0
90	Determinantal formulae for the Casimir operators of inhomogeneous Lie algebras. Journal of Physics A, 2006, 39, 13841-13841.	1.6	0

#	ARTICLE	IF	CITATIONS
91	Solvable Lie algebras, products by generators, and some of its applications. Journal of Mathematical Sciences, 2007, 144, 4423-4430.	0.4	0
92	Parafermions, Ternary Algebras and Their Associated Superspace. , 2010, , .		0
93	Hidden quartic symmetry in $N=2$ supersymmetry. Journal of Physics: Conference Series, 2011, 284, 012015.	0.4	0
94	The Madelung rule, Regge-like sequences and the conformal Lie algebra. Journal of Physics: Conference Series, 2014, 538, 012004.	0.4	0
95	Generalized harmonic functions and unitary representations of low dimensional Lie groups. Journal of Physics: Conference Series, 2015, 597, 012021.	0.4	0
96	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
97	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
98	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
99	The method of virtual copies and contractions of simple Lie algebras. Journal of Physics: Conference Series, 2020, 1612, 012006.	0.4	0
100	Trace formulas for the Casimir operators of the unextended Schrödinger algebra $S(N)$ . Journal of Mathematical Physics, 2020, 61, 043508.	1.1	0
101	Workshop on Higher Symmetries in Physics. Journal of Physics: Conference Series, 2009, 175, 011001.	0.4	0
102	FUNCTIONAL REALIZATIONS OF LIE ALGEBRAS AS NOETHER POINT SYMMETRIES OF SYSTEMS. Acta Polytechnica, 2017, 57, 373.	0.6	0