

Sergey Meleshko

List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/3930427/publications.pdf>

Version: 2024-02-01

93
papers

752
citations

687363

13
h-index

677142

22
g-index

94
all docs

94
docs citations

94
times ranked

208
citing authors

#	ARTICLE	IF	CITATIONS
1	Symmetries of Integro-Differential Equations. Lecture Notes in Physics, 2010, , .	0.7	83
2	On the complete group classification of the reactionâ€“diffusion equation with a delay. Journal of Mathematical Analysis and Applications, 2008, 338, 448-466.	1.0	50
3	A Particular Class of Partially Invariant Solutions of the Navierâ€“Stokes Equations. Nonlinear Dynamics, 2004, 36, 47-68.	5.2	29
4	On the complete group classification of the oneâ€“dimensional nonlinear Kleinâ€“Gordon equation with a delay. Mathematical Methods in the Applied Sciences, 2016, 39, 3255-3270.	2.3	26
5	Symmetries of the hyperbolic shallow water equations and the Greenâ€“Naghdi model in Lagrangian coordinates. International Journal of Non-Linear Mechanics, 2016, 86, 185-195.	2.6	26
6	One-dimensional gas dynamics equations of a polytropic gas in Lagrangian coordinates: Symmetry classification, conservation laws, difference schemes. Communications in Nonlinear Science and Numerical Simulation, 2019, 74, 201-218.	3.3	21
7	Reduction Procedure and Generalized Simple Waves for Systems Written in Riemann Variables. Nonlinear Dynamics, 2002, 30, 87-102.	5.2	20
8	On the definition of an admitted Lie group for stochastic differential equations. Communications in Nonlinear Science and Numerical Simulation, 2007, 12, 1379-1389.	3.3	19
9	Lie group classification of first-order delay ordinary differential equations. Journal of Physics A: Mathematical and Theoretical, 2018, 51, 205202.	2.1	19
10	Bobylev-Krook-Wu Modes for Multicomponent Gas Mixtures. Physical Review Letters, 1998, 81, 93-95.	7.8	15
11	Complete group classification of systems of two linear second-order ordinary differential equations. Communications in Nonlinear Science and Numerical Simulation, 2013, 18, 2972-2983.	3.3	15
12	Group classification of second-order delay ordinary differential equations. Communications in Nonlinear Science and Numerical Simulation, 2010, 15, 1444-1453.	3.3	14
13	Complete group classification of systems of two linear secondâ€“order ordinary differential equations: the algebraic approach. Mathematical Methods in the Applied Sciences, 2015, 38, 1824-1837.	2.3	14
14	Linear or linearizable first-order delay ordinary differential equations and their Lie point symmetries. Journal of Physics A: Mathematical and Theoretical, 2018, 51, 205203.	2.1	14
15	On definition of an admitted Lie group for functional differential equations. Communications in Nonlinear Science and Numerical Simulation, 2004, 9, 117-125.	3.3	13
16	On first integrals of second-order ordinary differential equations. Journal of Engineering Mathematics, 2013, 82, 17-30.	1.2	13
17	Application of a Lie group admitted by a homogeneous equation for group classification of a corresponding inhomogeneous equation. Communications in Nonlinear Science and Numerical Simulation, 2017, 48, 350-360.	3.3	13
18	Exact solutions of the population balance equation including particle transport, using group analysis. Communications in Nonlinear Science and Numerical Simulation, 2018, 59, 255-271.	3.3	13

#	ARTICLE	IF	CITATIONS
19	Comment on "Symmetry breaking of systems of linear second-order ordinary differential equations with constant coefficients". Communications in Nonlinear Science and Numerical Simulation, 2011, 16, 3447-3450.	3.3	12
20	Group analysis of the Fourier transform of the spatially homogeneous and isotropic Boltzmann equation with a source term. Communications in Nonlinear Science and Numerical Simulation, 2015, 20, 719-730.	3.3	12
21	Conservation laws of the two-dimensional gas dynamics equations. International Journal of Non-Linear Mechanics, 2019, 112, 126-132.	2.6	12
22	Analysis of the one-dimensional Euler-Lagrange equation of continuum mechanics with a Lagrangian of a special form. Applied Mathematical Modelling, 2020, 77, 1497-1511.	4.2	12
23	Conditions for linearization of a projectable system of two second-order ordinary differential equations. Journal of Physics A: Mathematical and Theoretical, 2008, 41, 402001.	2.1	11
24	Group analysis of integro-differential equations describing stress relaxation behavior of one-dimensional viscoelastic materials. International Journal of Non-Linear Mechanics, 2015, 77, 223-231.	2.6	11
25	Complete group classification of the two-Dimensional shallow water equations with constant coriolis parameter in Lagrangian coordinates. Communications in Nonlinear Science and Numerical Simulation, 2020, 89, 105293.	3.3	11
26	Second-order delay ordinary differential equations, their symmetries and application to a traffic problem. Journal of Physics A: Mathematical and Theoretical, 2021, 54, 105204.	2.1	11
27	Invariants of linear parabolic differential equations. Communications in Nonlinear Science and Numerical Simulation, 2008, 13, 277-284.	3.3	10
28	Group analysis of kinetic equations. Russian Journal of Numerical Analysis and Mathematical Modelling, 1995, 10, .	0.6	9
29	Group classification of one-dimensional equations of fluids with internal inertia. Mathematical Methods in the Applied Sciences, 2007, 30, 2101-2120.	2.3	9
30	On group classification of the spatially homogeneous and isotropic Boltzmann equation with sources II. International Journal of Non-Linear Mechanics, 2014, 61, 15-18.	2.6	9
31	Group analysis of kinetic equations in a non-linear thermal transport problem. International Journal of Non-Linear Mechanics, 2015, 71, 1-7.	2.6	9
32	Exact solutions of population balance equation. Communications in Nonlinear Science and Numerical Simulation, 2016, 36, 378-390.	3.3	9
33	Group classification of the two-dimensional shallow water equations with the beta-plane approximation of coriolis parameter in Lagrangian coordinates. Communications in Nonlinear Science and Numerical Simulation, 2020, 90, 105337.	3.3	9
34	Title is missing!. Nonlinear Dynamics, 2002, 28, 105-124.	5.2	8
35	Symmetry analysis of the nonlinear two-dimensional Klein-Gordon equation with a time-varying delay. Mathematical Methods in the Applied Sciences, 2017, 40, 4658.	2.3	8
36	Invariant and partially invariant solutions of integro-differential equations for linear thermoviscoelastic aging materials with memory. Continuum Mechanics and Thermodynamics, 2017, 29, 207-224.	2.2	8

#	ARTICLE	IF	CITATIONS
37	Linearization criteria for systems of two second-order stochastic ordinary differential equations. Applied Mathematics and Computation, 2017, 301, 25-35.	2.2	8
38	Symmetries of the shallow water equations in the Boussinesq approximation. Communications in Nonlinear Science and Numerical Simulation, 2019, 67, 1-12.	3.3	8
39	On the group classification of systems of two linear second-order ordinary differential equations with constant coefficients. Journal of Mathematical Analysis and Applications, 2014, 410, 341-347.	1.0	7
40	Application of group analysis to classification of systems of three second-order ordinary differential equations. Mathematical Methods in the Applied Sciences, 2015, 38, 5097-5113.	2.3	7
41	Symmetries of population balance equations for aggregation, breakage and growth processes. Applied Mathematics and Computation, 2017, 307, 193-203.	2.2	7
42	Symmetry groups of integro-differential equations for linear thermoviscoelastic materials with memory. Journal of Applied Mechanics and Technical Physics, 2017, 58, 587-609.	0.5	7
43	Symmetries of Stochastic Differential Equations. Lecture Notes in Physics, 2010, , 209-250.	0.7	6
44	On exact analytical solutions of equations of Maxwell incompressible viscoelastic medium. International Journal of Non-Linear Mechanics, 2018, 105, 152-157.	2.6	6
45	Solutions of generalized simple wave type of magnetic fluid. Communications in Nonlinear Science and Numerical Simulation, 2021, 103, 105991.	3.3	6
46	Plane one-dimensional MHD flows: Symmetries and conservation laws. International Journal of Non-Linear Mechanics, 2022, 140, 103899.	2.6	6
47	Linearization of a Second-Order Stochastic Ordinary Differential Equation. Journal of Nonlinear Mathematical Physics, 2011, 18, 427.	1.3	5
48	Group analysis of the thin film dewetting equation. International Journal of Non-Linear Mechanics, 2012, 47, 9-13.	2.6	5
49	On group classification of normal systems of linear second-order ordinary differential equations. Communications in Nonlinear Science and Numerical Simulation, 2015, 22, 1002-1016.	3.3	5
50	Characteristic properties of the system of equations for an incompressible viscoelastic Maxwell medium. Journal of Applied Mechanics and Technical Physics, 2017, 58, 794-800.	0.5	5
51	Exact Solutions of the Boltzmann Equations with a Source. Journal of Applied Mechanics and Technical Physics, 2018, 59, 189-196.	0.5	5
52	The one-dimensional Green-Naghdi equations with a time dependent bottom topography and their conservation laws. Physics of Fluids, 2020, 32, .	4.0	5
53	Application of group analysis to stochastic equations of fluid dynamics. Journal of Applied Mechanics and Technical Physics, 2013, 54, 21-33.	0.5	4
54	Invariant solutions of the two-dimensional shallow water equations with a particular class of bottoms. AIP Conference Proceedings, 2019, , .	0.4	4

#	ARTICLE	IF	CITATIONS
55	A truncated Painlevé expansion associated with the Tzitzica equation: consistency and general solution. <i>Physics Letters, Section A: General, Atomic and Solid State Physics</i> , 2002, 299, 349-352.	2.1	3
56	Invariants and invariant description of second-order ODEs with three infinitesimal symmetries. II. <i>Communications in Nonlinear Science and Numerical Simulation</i> , 2008, 13, 1015-1020.	3.3	3
57	Group classification of one-dimensional equations of fluids with internal energy depending on the density and the gradient of the density. <i>Continuum Mechanics and Thermodynamics</i> , 2009, 20, 397-410.	2.2	3
58	On group classification of the spatially homogeneous and isotropic Boltzmann equation with sources. <i>International Journal of Non-Linear Mechanics</i> , 2012, 47, 1014-1019.	2.6	3
59	Group classification of one-dimensional equations of capillary fluids where the specific energy is a function of density, density gradient and entropy. <i>International Journal of Non-Linear Mechanics</i> , 2014, 62, 73-84.	2.6	3
60	Invariant solutions of one-dimensional equations of two-temperature relaxation gas dynamics. <i>Mathematical Methods in the Applied Sciences</i> , 2020, 43, 2444-2457.	2.3	3
61	Group Analysis of the Boundary Layer Equations in the Models of Polymer Solutions. <i>Symmetry</i> , 2020, 12, 1084.	2.2	3
62	APPLICATION OF THE METHOD OF DIFFERENTIAL CONSTRAINTS TO SYSTEMS OF EQUATIONS WRITTEN IN RIEMANN INVARIANTS. <i>Journal of Applied Mechanics and Technical Physics</i> , 2021, 62, 351-360.	0.5	3
63	Group classification of one-dimensional nonisentropic equations of fluids with internal inertia. <i>Continuum Mechanics and Thermodynamics</i> , 2012, 24, 115-148.	2.2	2
64	Group classification of one-dimensional nonisentropic equations of fluids with internal inertia II. General case. <i>Continuum Mechanics and Thermodynamics</i> , 2015, 27, 447-460.	2.2	2
65	On steady two-dimensional analytical solutions of the viscoelastic Maxwell equations. <i>Journal of Non-Newtonian Fluid Mechanics</i> , 2019, 270, 1-7.	2.4	2
66	Conservation laws of the one-dimensional equations of relativistic gas dynamics in Lagrangian coordinates. <i>International Journal of Non-Linear Mechanics</i> , 2020, 124, 103496.	2.6	2
67	Exact Solutions of Boundary Layer Equations in Polymer Solutions. <i>Symmetry</i> , 2021, 13, 2101.	2.2	2
68	A new approach to the group analysis of one-dimensional stochastic differential equations. <i>Journal of Applied Mechanics and Technical Physics</i> , 2014, 55, 191-198.	0.5	1
69	Application of group analysis to the spatially homogeneous and isotropic Boltzmann equation with source using its Fourier image. <i>Journal of Physics: Conference Series</i> , 2015, 621, 012006.	0.4	1
70	Complete group classification of systems of two nonlinear second-Order ordinary differential equations of the form $y'' = F(y)$. <i>Communications in Nonlinear Science and Numerical Simulation</i> , 2017, 44, 318-333.	3.3	1
71	Preliminary group classification of the full Boltzmann equation with a source term. <i>AIP Conference Proceedings</i> , 2017, , .	0.4	1
72	Invariant solutions in explicit form of the Boltzmann equation with a source term. <i>Journal of Physics: Conference Series</i> , 2017, 894, 012063.	0.4	1

#	ARTICLE	IF	CITATIONS
73	Group properties of the extended Greenâ€Naghdi equations. Applied Mathematics Letters, 2018, 81, 1-6.	2.7	1
74	One class of invariant solutions of the one-dimensional equations of two-temperature relaxation gas dynamics. AIP Conference Proceedings, 2019, , .	0.4	1
75	Conservation laws of the one-dimensional isentropic gas dynamics equations in Lagrangian coordinates. AIP Conference Proceedings, 2019, , .	0.4	1
76	Group Properties of Equations of the Kinetic Theory of Coagulation. Journal of Applied Mechanics and Technical Physics, 2019, 60, 350-364.	0.5	1
77	Group Analysis of the One-Dimensional Gas Dynamics Equations in Lagrangian Coordinates and Conservation Laws. Journal of Applied Mechanics and Technical Physics, 2020, 61, 189-206.	0.5	1
78	UNSTEADY ONE-DIMENSIONAL FLOWS OF A VIBRATIONALLY EXCITED GAS. Journal of Applied Mechanics and Technical Physics, 2021, 62, 361-370.	0.5	1
79	Sedov type solution of the equations of hydraulic longitudinal waves. International Journal of Non-Linear Mechanics, 2021, 131, 103674.	2.6	1
80	Reciprocal transformations of the one-dimensional magnetogasdynamics. International Journal of Non-Linear Mechanics, 2022, 138, 103840.	2.6	1
81	One-Dimensional Flows of a Polytypic Gas: Lie Group Classification, Conservation Laws, Invariant and Conservative Difference Schemes. Nonlinear Physical Science, 2021, , 61-98.	0.2	1
82	Invariant solutions of delay differential equations. AIP Conference Proceedings, 2018, , .	0.4	0
83	Symmetries of one-dimensional fluid equations in Lagrangian coordinates. AIP Conference Proceedings, 2019, , .	0.4	0
84	Comment on â€Symbolic computation of equivalence transformations and parameter reduction for nonlinear physical modelsâ€™. Computer Physics Communications, 2019, 239, 14-15.	7.5	0
85	Group classification of systems of two linear second-order stochastic ordinary differential equations. AIP Conference Proceedings, 2019, , .	0.4	0
86	Equation of Rayleigh noise reduction model for medical ultrasound imaging: Symmetry classification and conservation laws in cylindrical coordinates. AIP Conference Proceedings, 2019, , .	0.4	0
87	Group analysis and exact solutions of the spatially homogeneous and isotropic Boltzmann equation with a source term. AIP Conference Proceedings, 2019, , .	0.4	0
88	Strong point explosion in vibrationally exciting gas. International Journal of Non-Linear Mechanics, 2021, 128, 103615.	2.6	0
89	Unsteady One-Dimensional Flows of a Vibrationally Excited Gas. PrikladnaËš Mehanika, TehniËskaËš Fizika, 2021, 62, 15-24.	0.0	0
90	ON PARTIALLY INVARIANT SOLUTIONS OF THE NAVIER-STOKES EQUATIONS. , 2004, , .		0

#	ARTICLE	IF	CITATIONS
91	Symmetries of Equations with Nonlocal Terms. Springer Proceedings in Mathematics and Statistics, 2018, , 105-124.	0.2	0
92	Conservation laws of the two-dimensional relativistic gas dynamics equations. International Journal of Non-Linear Mechanics, 2022, 144, 104059.	2.6	0
93	Group analysis of the two-dimensional two-temperature gas dynamics equations. Mathematical Methods in the Applied Sciences, 0, , .	2.3	0