CristÃ³bal GarcÃ-a

List of Publications by Year
in descending order

59 papers	587 citations	623734 14 h-index	677142 22 g-index
59 all docs	59 docs citations	59 times ranked	74 citing authors

#	Article	IF	Citations
1	Center problem for generic degenerate vector fields. Nonlinear Analysis: Theory, Methods & Applications, 2022, 214, 112597.	1.1	1
2	Analytical Integrability of Perturbations of Quadratic Systems. Mediterranean Journal of Mathematics, 2021, 18, 1.	0.8	4
3	Characterizing Orbital-Reversibility Through Normal Forms. Qualitative Theory of Dynamical Systems, 2021, 20, 1.	1.7	2
4	Analytically Integrable Centers of Perturbations of Cubic Homogeneous Systems. Qualitative Theory of Dynamical Systems, 2021, 20, 1.	1.7	2
5	Algebraic integrability of nilpotent planar vector fields. Chaos, Solitons and Fractals, 2021, 145, 110765.	5.1	0
6	A New Normal Form for Monodromic Nilpotent Singularities of Planar Vector Fields. Mediterranean Journal of Mathematics, 2021, 18, 1.	0.8	1
7	Orbital Hypernormal Forms. Symmetry, 2021, 13, 1500.	2.2	1
8	On the integrability problem for the Hopf-zero singularity and its relation with the inverse Jacobi multiplier. Applied Mathematics and Computation, 2021, 405, 126241.	2.2	3
9	Orbital Reversibility of Planar Vector Fields. Mathematics, 2021, 9, 14.	2.2	6
10	Center conditions of a particular polynomial differential system with a nilpotent singularity. Journal of Mathematical Analysis and Applications, 2020, 483, 123639.	1.0	3
11	Quasi-homogeneous linearization of degenerate vector fields. Journal of Mathematical Analysis and Applications, 2020, 483, 123635.	1.0	4
12	Orbital normal forms for a class of three-dimensional systems with an application to Hopf-zero bifurcation analysis of Fitzhughâ€“Nagumo system. Applied Mathematics and Computation, 2020, 369, 124893.	2.2	3
13	Orbitally universal centers. Nonlinear Analysis: Theory, Methods & Applications, 2020, 195, 111746.	1.1	1
14	Analytic integrability around a nilpotent singularity: The non-generic case. Communications on Pure and Applied Analysis, 2020, 19, 407-423.	0.8	5
15	Invariant curves and analytic integrability of a planar vector field. Journal of Differential Equations, 2019, 266, 1357-1376.	2.2	9
16	Analytic integrability around a nilpotent singularity. Journal of Differential Equations, 2019, 267, 443-467.	2.2	13
17	Nondegenerate and Nilpotent Centers for a Cubic System of Differential Equations. Qualitative Theory of Dynamical Systems, 2019, 18, 333-345.	1.7	8
18	Integrability of planar nilpotent differential systems through the existence of an inverse integrating factor. Communications in Nonlinear Science and Numerical Simulation, 2019, 71, 130-140.	3.3	5

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19	Nondegenerate centers and limit cycles of cubic Kolmogorov systems. Nonlinear Dynamics, 2018, 91, 487-496.	5.2	6
20	Normal Form for a Class of Three-Dimensional Systems with Free-Divergence Principal Part. Understanding Complex Systems, 2018, , 37-65.	0.6	0
21	Local Integrability for Some Degenerate Nilpotent Vector Fields. Understanding Complex Systems, 2018, , 243-267.	0.6	0
22	Analytical integrability problem for perturbations of cubic Kolmogorov systems. Chaos, Solitons and Fractals, 2018, 113, 1-10.	5.1	7
23	New aspects of the orbital normal form of the Hopf singularity: The Rayleigh and the van der Pol forms. International Journal of Non-Linear Mechanics, 2018, 105, 20-26.	2.6	1
24	Structural stability of planar quasi-homogeneous vector fields. Journal of Mathematical Analysis and Applications, 2018, 468, 212-226.	1.0	1
25	The center problem for <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" altimg="si1.gif" overflow="scroll"><mml:msub><mml:mrow><mml:mi mathvariant="double-struck">Z</mml:mi></mml:mrow><mml:mrow><mml:mn>2</mml:mn></mml:mrow></mml:msub></mml:math>-nilpotent vector fields. Journal of Mathematical Analysis and Applications, 2018, 466, 183-198.	1.0	15
26	Non-formally integrable centers admitting an algebraic inverse integrating factor. Discrete and Continuous Dynamical Systems, 2018, 38, 967-988.	0.9	1
27	A bifurcation analysis of planar nilpotent reversible systems. Nonlinear Dynamics, 2017, 87, 835-849.	5.2	5
28	Geometric Criterium in the Center Problem. Mediterranean Journal of Mathematics, 2016, 13, 2593-2611.	0.8	9
29	Analytic integrability inside a family of degenerate centers. Nonlinear Analysis: Real World Applications, 2016, 31, 288-307.	1.7	7
30	Nilpotent centres via inverse integrating factors. European Journal of Applied Mathematics, 2016, 27, 781-795.	2.9	12
31	Analytic Integrability of Some Examples of Degenerate Planar Vector Fields. Acta Applicandae Mathematicae, 2016, 141, 1-15.	1.0	2
32	The center problem. A view from the normal form theory. Journal of Mathematical Analysis and Applications, 2016, 434, 680-697.	1.0	12
33	Algebraic Inverse Integrating Factors for a Class of Generalized Nilpotent Systems. SEMA SIMAI Springer Series, 2016, , 287-300.	0.7	0
34	Local phase portraits through the Newton diagram of a vector field. Acta Mathematica Sinica, English Series, 2015, 31, 1015-1034.	0.6	0
35	Monodromy of a class of analytic generalized nilpotent systems through their Newton diagram. Journal of Computational and Applied Mathematics, 2015, 287, 78-87.	2.0	3
36	On orbital-reversibility for a class of planar dynamical systems. Communications in Nonlinear Science and Numerical Simulation, 2015, 20, 229-239.	3.3	14

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37	A new algorithm for determining the monodromy of a planar differential system. Applied Mathematics and Computation, 2014, 237, 419-429.	2.2	8
38	Analytic integrability for some degenerate planar vector fields. Journal of Differential Equations, 2014, 257, 549-565.	2.2	18
39	A class of non-integrable systems admitting an inverse integrating factor. Journal of Mathematical Analysis and Applications, 2014, 420, 1439-1454.	1.0	9
40	On the Formal Integrability Problem for Planar Differential Systems. Abstract and Applied Analysis, 2013, 2013, 1-10.	0.7	6
41	Analytic integrability for some degenerate planar systems. Communications on Pure and Applied Analysis, 2013, 12, 2797-2809.	0.8	9
42	The reversibility problem for quasi-homogeneous dynamical systems. Discrete and Continuous Dynamical Systems, 2013, 33, 3225-3236.	0.9	5
43	A note on analytic integrability of planar vector fields. European Journal of Applied Mathematics, 2012, 23, 555-562.	2.9	9
44	Existence of an inverse integrating factor, center problem and integrability of a class of nilpotent systems. Chaos, Solitons and Fractals, 2012, 45, 869-878.	5.1	22
45	Centers of quasi-homogeneous polynomial planar systems. Nonlinear Analysis: Real World Applications, 2012, 13, 419-431.	1.7	35
46	Integrability of two dimensional quasi-homogeneous polynomial differential systems. Rocky Mountain Journal of Mathematics, 2011, 41, .	0.4	30
47	Nilpotent Systems Admitting an Algebraic Inverse Integrating Factor over $${{mathbb{C}}((x,y))}$$. Qualitative Theory of Dynamical Systems, 2011, 10, 303-316.	1.7	6
48	Characterization of a monodromic singular point of a planar vector field. Nonlinear Analysis: Theory, Methods & Applications, 2011, 74, 5402-5414.	1.1	15
49	Monodromy, centerâ€“focus and integrability problems for quasi-homogeneous polynomial systems. Nonlinear Analysis: Theory, Methods & Applications, 2010, 72, 1726-1736.	1.1	25
50	Reversibility and quasi-homogeneous normal forms of vector fields. Nonlinear Analysis: Theory, Methods & Applications, 2010, 73, 510-525.	1.1	20
51	Rational integrability of two-dimensional quasi-homogeneous polynomial differential systems. Nonlinear Analysis: Theory, Methods & Applications, 2010, 73, 1318-1327.	1.1	15
52	The integrability problem for a class of planar systems. Nonlinearity, 2009, 22, 395-420.	1.4	71
53	Local bifurcation of limit cycles and integrability of a class of nilpotent systems of differential equations. Applied Mathematics and Computation, 2009, 215, 314-323.	2.2	10
54	Like-linearizations of vector fields. Bulletin Des Sciences Mathematiques, 2009, 133, 806-816.	1.0	11

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55	The center problem for a family of systems of differential equations having a nilpotent singular point. Journal of Mathematical Analysis and Applications, 2008, 340, 32-43.	1.0	29
56	A degenerate Hopfâ€“saddle-node bifurcation analysis in a family of electronic circuits. Nonlinear Dynamics, 2007, 48, 55-76.	5.2	11
57	An Algorithm for Computing Quasi-Homogeneous Formal Normal Forms under Equivalence. Acta Applicandae Mathematicae, 2004, 80, 335-359.	1.0	17
58	Quasi-homogeneous normal forms. Journal of Computational and Applied Mathematics, 2003, 150, 193-216.	2.0	40
59	Analytic partial-integrability of a symmetric Hopf-zero degeneracy. Proceedings of the Royal Society of Edinburgh Section A: Mathematics, 0, , 1-20.	1.2	0