Michael F Singer

List of Publications by Year
in descending order

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50 papers	1,937 citations	361413 20 h-index	254184 43 g-index
53 all docs	53 docs citations	53 times ranked	327 citing authors

#	Article	IF	Citations
1	Galois Theory of Linear Differential Equations. Grundlehren Der Mathematischen Wissenschaften in Einzeldarstellungen Mit Besonderer BerÃ¼cksichtigung Der Anwendungsgebiete, 2003, , .	0.9	424
2	Liouvillian first integrals of differential equations. Transactions of the American Mathematical Society, 1992, 333, 673-688.	0.9	211
3	Fast Parallel Algorithms for Sparse Multivariate Polynomial Interpolation over Finite Fields. SIAM Journal on Computing, 1990, 19, 1059-1063.	1.0	109
4	Liouvillian Solutions of n-th Order Homogeneous Linear Differential Equations. American Journal of Mathematics, 1981, 103, 661.	1.1	99
5	Differential Galois theory of linear difference equations. Mathematische Annalen, 2008, 342, 333-377.	1.4	96
6	Galois Groups of Second and Third Order Linear Differential Equations. Journal of Symbolic Computation, 1993, 16, 9-36.	0.8	76
7	Liouvillian Solutions of Linear Differential Equations with Liouvillian Coefficients. Journal of Symbolic Computation, 1991, 11, 251-273.	0.8	72
8	Testing reducibility of linear differential operators: A group theoretic perspective. Applicable Algebra in Engineering, Communications and Computing, 1996, 7, 77-104.	0.5	69
9	Liouvillian and Algebraic Solutions of Second and Third Order Linear Differential Equations. Journal of Symbolic Computation, 1993, 16, 37-73.	0.8	59
10	Formal solutions of differential equations. Journal of Symbolic Computation, 1990, 10, 59-94.	0.8	39
11	Computational Complexity of Sparse Rational Interpolation. SIAM Journal on Computing, 1994, 23, 1-11.	1.0	39
12	Solving Homogeneous Linear Differential Equations in Terms of Second Order Linear Differential Equations. American Journal of Mathematics, 1985, 107, 663.	1.1	37
13	The model theory of ordered differential fields. Journal of Symbolic Logic, 1978, 43, 82-91.	0.5	36
14	Residues and telescopers for bivariate rational functions. Advances in Applied Mathematics, 2012, 49, 111-133.	0.7	35
15	Necessary conditions for liouvillian solutions of (third order) linear differential equations. Applicable Algebra in Engineering, Communications and Computing, 1995, 6, 1-22.	0.5	33
16	On the nature of the generating series of walks in the quarter plane. Inventiones Mathematicae, 2018, 213, 139-203.	2.5	31
17	The interpolation problem for k-sparse sums of eigenfunctions of operators. Advances in Applied Mathematics, 1991, 12, 76-81.	0.7	25
18	Computing Galois Groups of Completely Reducible Differential Equations. Journal of Symbolic Computation, 1999, 28, 473-494.	0.8	23

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19	A Jordanâ€“HÃ¶lder Theorem for differential algebraic groups. Journal of Algebra, 2011, 328, 190-217.	0.7	22
20	Unipotent differential algebraic groups as parameterized differential Galois groups. Journal of the Institute of Mathematics of Jussieu, 2014, 13, 671-700.	0.7	21
21	Monodromy groups of parameterized linear differential equations with regular singularities. Bulletin of the London Mathematical Society, 2012, 44, 913-930.	0.8	19
22	Algebraic Relations Among Solutions of Linear Differential Equations: Fano's Theorem. American Journal of Mathematics, 1988, 110, 115.	1.1	18
23	Linear algebraic groups as parameterized Picardâ€“Vessiot Galois groups. Journal of Algebra, 2013, 373, 153-161.	0.7	18
24	Reductive Linear Differential Algebraic Groups and the Galois Groups of Parameterized Linear Differential Equations. International Mathematics Research Notices, 2015, 2015, 1733-1793.	1.0	18
25	Linear Differential Operators for Polynomial Equations. Journal of Symbolic Computation, 2002, 34, 355-398.	0.8	17
26	On the definitions of difference Galois groups. , 2008, , 73-110.		17
27	Linear differential equations and products of linear forms. Journal of Pure and Applied Algebra, 1997, 117-118, 549-563.	0.6	14
28	Projective isomonodromy and Galois groups. Proceedings of the American Mathematical Society, 2012, 141, 605-617.	0.8	11
29	On the summability of bivariate rational functions. Journal of Algebra, 2014, 409, 320-343.	0.7	11
30	Solvable-by-finite groups as differential Galois groups. Annales De La FacultÃ© Des Sciences De Toulouse, 2002, 11, 403-423.	0.3	11
31	A recursive method for determining the one-dimensional submodules of Laurent-Ore modules. , 2006, , .		10
32	Solutions of linear differential equations in function fields of one variable. Proceedings of the American Mathematical Society, 1976, 54, 69-69.	0.8	8
33	Galois groups for integrable and projectively integrable linear difference equations. Journal of Algebra, 2017, 480, 423-449.	0.7	8
34	Planar polynomial foliations. Proceedings of the American Mathematical Society, 1980, 79, 649-656.	0.8	8
35	Functions satisfying elementary relations. Transactions of the American Mathematical Society, 1977, 227, 185-206.	0.9	7
36	Separatrices at singular points of planar vector fields. Acta Mathematica, 1980, 145, 47-78.	3.9	7

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37	Algebraic properties of the ring of general exponential polynomials. Complex Variables and Elliptic Equations, 1989, 13, 1-20.	0.2	7
38	Liouvillian solutions of linear differenceâ€“differential equations. Journal of Symbolic Computation, 2010, 45, 287-305.	0.8	7
39	Walks in the quarter plane: Genus zero case. Journal of Combinatorial Theory - Series A, 2020, 174, 105251.	0.8	7
40	A class of differential fields with minimal differential closures. Proceedings of the American Mathematical Society, 1978, 69, 319-322.	0.8	7
41	An algorithm to compute Liouvillian solutions of prime order linear differenceâ€“differential equations. Journal of Symbolic Computation, 2010, 45, 306-323.	0.8	6
42	Liouvillian Solutions of Linear Differential Equations with Liouvillian Coefficients. , 1989, , 182-191.		4
43	Some Applications of Linear Groups to Differential Equations. American Journal of Mathematics, 1985, 107, 1111.	1.1	3
44	On the Constructive Inverse Problem in Differential Galois Theory#. Communications in Algebra, 2005, 33, 3639-3665.	0.6	3
45	Parallel telescoping and parameterized Picard-Vessiot theory. , 2014, , .		3
46	On differentially algebraic generating series for walks in the quarter plane. Selecta Mathematica, New Series, 2021, 27, 1.	1.0	3
47	On a third order differential equation whose differential Galois group is the simple group of 168 elements. Lecture Notes in Computer Science, 1993, , 316-324.	1.3	2
48	Sparse Interpolation in Terms of Multivariate Chebyshev Polynomials. Foundations of Computational Mathematics, 2022, 22, 1801-1862.	2.5	1
49	On the integer zeros of exponential polynomials. Complex Variables and Elliptic Equations, 1993, 23, 201-211.	0.2	0
50	On the Kernel Curves Associated with Walks in the Quarter Plane. Springer Proceedings in Mathematics and Statistics, 2021, , 61-89.	0.2	0