

# Robert Milson

## List of Publications by Year in descending order

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55  
papers

2,588  
citations

257450

24  
h-index

189892

50  
g-index

56  
all docs

56  
docs citations

56  
times ranked

706  
citing authors

#	ARTICLE	IF	CITATIONS
1	Human memory: An adaptive perspective.. Psychological Review, 1989, 96, 703-719.	3.8	526
2	An extended class of orthogonal polynomials defined by a Sturm-Liouville problem. Journal of Mathematical Analysis and Applications, 2009, 359, 352-367.	1.0	243
3	Classification of the Weyl tensor in higher dimensions. Classical and Quantum Gravity, 2004, 21, L35-L41.	4.0	203
4	An extension of Bochner's problem: Exceptional invariant subspaces. Journal of Approximation Theory, 2010, 162, 987-1006.	0.8	160
5	Rational extensions of the quantum harmonic oscillator and exceptional Hermite polynomials. Journal of Physics A: Mathematical and Theoretical, 2014, 47, 015203.	2.1	119
6	All spacetimes with vanishing curvature invariants. Classical and Quantum Gravity, 2002, 19, 6213-6236.	4.0	104
7	Vanishing scalar invariant spacetimes in higher dimensions. Classical and Quantum Gravity, 2004, 21, 5519-5542.	4.0	104
8	Exceptional orthogonal polynomials and the Darboux transformation. Journal of Physics A: Mathematical and Theoretical, 2010, 43, 434016.	2.1	103
9	ALIGNMENT AND ALGEBRAICALLY SPECIAL TENSORS IN LORENTZIAN GEOMETRY. International Journal of Geometric Methods in Modern Physics, 2005, 02, 41-61.	2.0	97
10	Two-step Darboux transformations and exceptional Laguerre polynomials. Journal of Mathematical Analysis and Applications, 2012, 387, 410-418.	1.0	95
11	Bianchi identities in higher dimensions. Classical and Quantum Gravity, 2004, 21, 2873-2897.	4.0	80
12	Asymptotic and interlacing properties of zeros of exceptional Jacobi and Laguerre polynomials. Journal of Mathematical Analysis and Applications, 2013, 399, 480-495.	1.0	47
13	Gravitational waves from axisymmetrically oscillating neutron stars in general relativistic simulations. Physical Review D, 2003, 68, .	4.7	44
14	The Darboux transformation and algebraic deformations of shape-invariant potentials. Journal of Physics A, 2004, 37, 1789-1804.	1.6	44
15	Supersymmetry and algebraic Darboux transformations. Journal of Physics A, 2004, 37, 10065-10078.	1.6	42
16	A Conjecture on Exceptional Orthogonal Polynomials. Foundations of Computational Mathematics, 2013, 13, 615-666.	2.5	42
17	Recurrence relations for exceptional Hermite polynomials. Journal of Approximation Theory, 2016, 204, 1-16.	0.8	39
18	Invariant Modules and the Reduction of Nonlinear Partial Differential Equations to Dynamical Systems. Advances in Mathematics, 2000, 156, 286-319.	1.1	37

#	ARTICLE	IF	CITATIONS
19	A Bochner type characterization theorem for exceptional orthogonal polynomials. Journal of Mathematical Analysis and Applications, 2019, 472, 584-626.	1.0	37
20	Liouville Transformation and Exactly Solvable Schrodinger Equations. International Journal of Theoretical Physics, 1998, 37, 1735-1752.	1.2	33
21	Extended Krein-Adler theorem for the translationally shape invariant potentials. Journal of Mathematical Physics, 2014, 55, .	1.1	33
22	Zeros of exceptional Hermite polynomials. Journal of Approximation Theory, 2015, 200, 28-39.	0.8	31
23	Bianchi identities in higher dimensions. Classical and Quantum Gravity, 2007, 24, 1691-1691.	4.0	30
24	Quasi-exact solvability and the direct approach to invariant subspaces. Journal of Physics A, 2005, 38, 2005-2019.	1.6	26
25	Killing tensors as irreducible representations of the general linear group. Comptes Rendus Mathematique, 2004, 339, 621-624.	0.3	24
26	The spectral analysis of three families of exceptional Laguerre polynomials. Journal of Approximation Theory, 2016, 202, 5-41.	0.8	18
27	Durfee Rectangles and Pseudo-Wronskian Equivalences for Hermite Polynomials. Studies in Applied Mathematics, 2018, 141, 596-625.	2.4	18
28	Quasi-exact solvability in a general polynomial setting. Inverse Problems, 2007, 23, 1915-1942.	2.0	14
29	Quasi-exact solvability beyond the $sl(2)$ algebraization. Physics of Atomic Nuclei, 2007, 70, 520-528.	0.4	13
30	The type N Karlhede bound is sharp. Classical and Quantum Gravity, 2008, 25, 012001.	4.0	13
31	THE CURVATURE HOMOGENEITY BOUND FOR LORENTZIAN FOUR-MANIFOLDS. International Journal of Geometric Methods in Modern Physics, 2009, 06, 99-127.	2.0	13
32	Cyclic Maya diagrams and rational solutions of higher order Painlevé systems. Studies in Applied Mathematics, 2020, 144, 357-385.	2.4	13
33	Shape invariance and equivalence relations for pseudo-Wronskians of Laguerre and Jacobi polynomials. Journal of Physics A: Mathematical and Theoretical, 2018, 51, 345201.	2.1	12
34	Three-dimensional spacetimes of maximal order. Classical and Quantum Gravity, 2013, 30, 095004.	4.0	11
35	VSlI space-times and the $\mu$ -property. Journal of Mathematical Physics, 2005, 46, 063501.	1.1	9
36	Structure theorems for linear and non-linear differential operators admitting invariant polynomial subspaces. Discrete and Continuous Dynamical Systems, 2007, 18, 85-106.	0.9	9

#	ARTICLE	IF	CITATIONS
37	Vacuum Kundt waves. <i>Classical and Quantum Gravity</i> , 2013, 30, 055010.	4.0	8
38	On the construction of quasi-exactly solvable Schrödinger operators on homogeneous spaces. <i>Journal of Mathematical Physics</i> , 1995, 36, 6004-6027.	1.1	6
39	Vacuum plane waves: Cartan invariants and physical interpretation. <i>Classical and Quantum Gravity</i> , 2012, 29, 235023.	4.0	5
40	Point equivalence of second-order ODEs: Maximal invariant classification order. <i>Journal of Symbolic Computation</i> , 2015, 67, 16-41.	0.8	5
41	Corrigendum on the proof of completeness for exceptional Hermite polynomials. <i>Journal of Approximation Theory</i> , 2020, 253, 105350.	0.8	4
42	Representations of Finite-Dimensional Lie Algebras by First-Order Differential Operators. Some Local Results in the Transitive Case. <i>Journal of the London Mathematical Society</i> , 1995, 52, 285-302.	1.0	3
43	Invariant classification of vacuum pp-waves. <i>Journal of Mathematical Physics</i> , 2013, 54, 022502.	1.1	3
44	The Adelic Grassmannian and Exceptional Hermite Polynomials. <i>Mathematical Physics Analysis and Geometry</i> , 2020, 23, 1.	1.0	3
45	Exceptional Orthogonal Polynomials and Rational Solutions to Painlevé Equations. <i>Tutorials, Schools, and Workshops in the Mathematical Sciences</i> , 2020, , 335-386.	0.3	3
46	Imprimitively Generated Lie-Algebraic Hamiltonians and Separation of Variables. <i>Canadian Journal of Mathematics</i> , 1998, 50, 1298-1322.	0.6	2
47	Complete classification of rational solutions of A <sub>2</sub> -Painlevé systems. <i>Advances in Mathematics</i> , 2021, 385, 107770.	1.1	2
48	Spectral Theory of Exceptional Hermite Polynomials. <i>Operator Theory: Advances and Applications</i> , 2021, , 173-196.	0.2	2
49	Exceptional Gegenbauer polynomials via isospectral deformation. <i>Studies in Applied Mathematics</i> , 0, , .	2.4	2
50	Spectral Residues of Second-Order Differential Equations: A New Method for Summation Identities and Inversion Formulas. <i>Studies in Applied Mathematics</i> , 2001, 107, 337-366.	2.4	1
51	Ladder Operators and Rational Extensions. , 2021, , 121-130.		1
52	On Projective Equivalence of Univariate Polynomial Subspaces. <i>Symmetry, Integrability and Geometry: Methods and Applications (SIGMA)</i> , 2009, , .	0.5	1
53	Algebraic exact solvability of trigonometric-type Hamiltonians associated to root systems. <i>Journal of Mathematical Physics</i> , 1999, 40, 5004-5013.	1.1	0
54	Reply to comment on "The Darboux transformation and algebraic deformations of shape-invariant potentials". <i>Journal of Physics A</i> , 2004, 37, 8405-8406.	1.6	0

#	ARTICLE	IF	CITATIONS
55	Reflection quotients in Riemannian geometry. A geometric converse to Chevalley's theorem. Proceedings of the American Mathematical Society, 2004, 132, 2825-2831.	0.8	0