

# Walter Van Assche

## List of Publications by Year in descending order

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137  
papers

2,988  
citations

186265

28  
h-index

223800

46  
g-index

153  
all docs

153  
docs citations

153  
times ranked

507  
citing authors

#	ARTICLE	IF	CITATIONS
1	Orthogonal polynomials, Toda lattices and Painlevé equations. <i>Physica D: Nonlinear Phenomena</i> , 2022, 434, 133214.	2.8	5
2	Chebyshev polynomials in the 16th century. <i>Journal of Approximation Theory</i> , 2022, , 105767.	0.8	1
3	Zero Distribution of Orthogonal Polynomials on a q-Lattice. <i>Constructive Approximation</i> , 2021, 54, 117-144.	3.0	3
4	Special issue OPSFA15: orthogonal polynomials, special functions and applications. <i>Integral Transforms and Special Functions</i> , 2021, 32, 333-335.	1.2	0
5	Jacobi's Angelesco Multiple Orthogonal Polynomials on an r-Star. <i>Constructive Approximation</i> , 2020, 51, 353-381.	3.0	5
6	Three-fold symmetric Hahn-classical multiple orthogonal polynomials. <i>Analysis and Applications</i> , 2020, 18, 271-332.	2.2	8
7	Laguerre's Angelesco multiple orthogonal polynomials on an $r$ -star. <i>Journal of Approximation Theory</i> , 2020, 250, 105324.	0.8	5
8	Multiple Askey's Wilson polynomials and related basic hypergeometric multiple orthogonal polynomials. <i>Transactions of the American Mathematical Society</i> , 2020, 373, 8289-8312.	0.9	0
9	General Orthogonal Polynomials. , 2020, , 16-50.		0
10	Jacobi and Related Polynomials. , 2020, , 51-99.		0
11	Recursively Defined Polynomials. , 2020, , 100-118.		0
12	Wilson and Related Polynomials. , 2020, , 119-128.		0
13	Discrete Orthogonal Polynomials. , 2020, , 129-156.		0
14	Some q-Orthogonal Polynomials. , 2020, , 157-177.		0
15	The Askey's Wilson Family of Polynomials. , 2020, , 178-198.		0
16	Orthogonal Polynomials on the Unit Circle. , 2020, , 199-241.		0
17	Zeros of Orthogonal Polynomials. , 2020, , 242-268.		0
18	The Moment Problem. , 2020, , 269-306.		1

#	ARTICLE	IF	CITATIONS
19	Matrix-Valued Orthogonal Polynomials and Differential Equations. , 2020, , 307-333.		0
20	Some Families of Matrix-Valued Jacobi Orthogonal Polynomials. , 2020, , 334-356.		0
21	Orthogonal and Multiple Orthogonal Polynomials, Random Matrices, and Painlevé Equations. Tutorials, Schools, and Workshops in the Mathematical Sciences, 2020, , 629-683.	0.3	4
22	Alpert Multiwavelets and Legendre–Angelesco Multiple Orthogonal Polynomials. SIAM Journal on Mathematical Analysis, 2017, 49, 626-645.	1.9	5
23	Majorization results for zeros of orthogonal polynomials. Proceedings of the American Mathematical Society, 2017, 145, 3849-3863.	0.8	0
24	Hermite–Padé Approximants for a Pair of Cauchy Transforms with Overlapping Symmetric Supports. Communications on Pure and Applied Mathematics, 2017, 70, 444-510.	3.1	11
25	Discrete integrable systems generated by Hermite–Padé approximants. Nonlinearity, 2016, 29, 1487-1506.	1.4	17
26	Mehler–Heine asymptotics for multiple orthogonal polynomials. Proceedings of the American Mathematical Society, 2016, 145, 303-314.	0.8	10
27	Unique positive solution for an alternative discrete Painlevé I equation. Journal of Difference Equations and Applications, 2016, 22, 656-675.	1.1	11
28	Asymptotic zero distribution of Jacobi–Piñeiro and multiple Laguerre polynomials. Journal of Approximation Theory, 2016, 205, 114-132.	0.8	11
29	WHAT IS...A Multiple Orthogonal Polynomial?. Notices of the American Mathematical Society, 2016, 63, 1029-1031.	0.2	12
30	Multiple orthogonal polynomials associated with an exponential cubic weight. Journal of Approximation Theory, 2015, 190, 1-25.	0.8	16
31	A tribute to Dick Askey. Journal of Approximation Theory, 2015, 193, 1-3.	0.8	2
32	Orthogonal polynomials for Minkowski’s question mark function. Journal of Computational and Applied Mathematics, 2015, 284, 171-183.	2.0	3
33	Hyperelliptic uniformization of algebraic curves of the third order. Journal of Computational and Applied Mathematics, 2015, 284, 38-49.	2.0	12
34	Computing recurrence coefficients of multiple orthogonal polynomials. Numerical Algorithms, 2015, 70, 519-543.	1.9	12
35	A family of nonlinear difference equations: Existence, uniqueness, and asymptotic behavior of positive solutions. Journal of Approximation Theory, 2015, 193, 39-55.	0.8	12
36	Variations of Stieltjes–Wigert and $q$ -Laguerre polynomials and their recurrence coefficients. Journal of Approximation Theory, 2015, 193, 56-73.	0.8	6

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37	Zero distribution of polynomials satisfying a differential-difference equation. Analysis and Applications, 2014, 12, 635-666.	2.2	6
38	Gauss-type quadrature. , 2014, , 35-49.		0
39	Recurrence coefficients of generalized Charlier polynomials and the fifth Painlevé equation. Proceedings of the American Mathematical Society, 2013, 141, 551-562.	0.8	20
40	OPSFA™11. Journal of Approximation Theory, 2013, 170, 1-2.	0.8	0
41	Asymptotics for the ratio and the zeros of multiple Charlier polynomials. Journal of Approximation Theory, 2013, 170, 3-20.	0.8	0
42	Ladder operators and differential equations for multiple orthogonal polynomials. Journal of Physics A: Mathematical and Theoretical, 2013, 46, 205204.	2.1	9
43	The generalized Krawtchouk polynomials and the fifth Painlevé equation. Journal of Difference Equations and Applications, 2013, 19, 1437-1451.	1.1	8
44	The recurrence coefficients of semi-classical Laguerre polynomials and the fourth Painlevé equation. Journal of Physics A: Mathematical and Theoretical, 2012, 45, 205201.	2.1	46
45	Orthogonal Polynomials on a Bi-lattice. Constructive Approximation, 2012, 36, 215-242.	3.0	21
46	Asymptotics for the ratio and the zeros of multiple Charlier polynomials. Journal of Approximation Theory, 2012, 164, 823-840.	0.8	4
47	Interlacing properties of zeros of multiple orthogonal polynomials. Journal of Mathematical Analysis and Applications, 2012, 389, 429-438.	1.0	22
48	Recurrence coefficients of generalized Meixner polynomials and Painlevé equations. Journal of Physics A: Mathematical and Theoretical, 2011, 44, 035202.	2.1	21
49	Hermite-Padé Rational Approximation to Irrational Numbers. Computational Methods and Function Theory, 2011, 10, 585-602.	1.5	2
50	Nearest neighbor recurrence relations for multiple orthogonal polynomials. Journal of Approximation Theory, 2011, 163, 1427-1448.	0.8	61
51	Orthogonal polynomials, special functions, and applications. Journal of Approximation Theory, 2011, 163, 813.	0.8	1
52	Asymptotics of Hermite-Pade Rational Approximants for Two Analytic Functions with Separated Pairs of Branch Points (Case of Genus 0). International Mathematics Research Papers, 2010, , .	0.3	24
53	Joseph L. Ullman (1923-1995). Journal of Approximation Theory, 2010, 162, 639-645.	0.8	0
54	Mellin transforms for multiple Jacobi polynomials and a $q$ -analogue. Journal of Approximation Theory, 2010, 162, 782-806.	0.8	6

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55	$q$ -Discrete Painlevé equations for recurrence coefficients of modified $q$ -Freud orthogonal polynomials. Journal of Difference Equations and Applications, 2010, 16, 37-53.	1.1	20
56	Discrete Painlevé equations for recurrence coefficients of semiclassical Laguerre polynomials. Proceedings of the American Mathematical Society, 2010, 138, 1317-1331.	0.8	34
57	Irrationality proof of a $q$ -extension of $\Gamma(2)$ using little $q$ -Jacobi polynomials. Acta Arithmetica, 2009, 138, 165-178.	0.4	6
58	Multiple Orthogonal Polynomials on the Unit Circle. Constructive Approximation, 2008, 28, 173-197.	3.0	4
59	Asymptotic zero distribution for a class of multiple orthogonal polynomials. Transactions of the American Mathematical Society, 2008, 360, 5571-5588.	0.9	29
60	Leonhard Euler and a $q$ -analogue of the logarithm. Proceedings of the American Mathematical Society, 2008, 137, 1663-1676.	0.8	8
61	Discrete Painlevé equations for recurrence coefficients of orthogonal polynomials. , 2007, , .		41
62	Type II Hermite- $q$ Padé approximation to the exponential function. Journal of Computational and Applied Mathematics, 2007, 207, 227-244.	2.0	12
63	$\text{xmlns:xocs}="http://www.elsevier.com/xml/xocs/dtd" \text{xmlns:xs}="http://www.w3.org/2001/XMLSchema" \text{xmlns:xsi}="http://www.w3.org/2001/XMLSchema-instance" \text{xmlns}="http://www.elsevier.com/xml/ja/dtd" \text{xmlns:ja}="http://www.elsevier.com/xml/ja/dtd" \text{xmlns:mml}="http://www.w3.org/1998/Math/MathML" \text{xmlns:tb}="http://www.elsevier.com/xml/common/table/dtd" \text{xmlns:sb}="http://www.elsevier.com/xml/common/struct-bib/dtd" \text{xmlns:ce}="http://www.elsevier.com/x$	0.4	13
64	Rakhmanov's theorem for orthogonal matrix polynomials on the unit circle. Journal of Approximation Theory, 2007, 146, 227-242.	0.8	21
65	Multiple Wilson and Jacobi- $q$ polynomials. Journal of Approximation Theory, 2005, 132, 155-181.	0.8	22
66	Multiple little $q$ -Jacobi polynomials. Journal of Approximation Theory, 2005, 132, 155-181.	2.0	16
67	Gaussian quadrature for multiple orthogonal polynomials. Journal of Computational and Applied Mathematics, 2005, 178, 131-145.	2.0	24
68	Quadratic Hermite- $q$ Padé Approximation to the Exponential Function: A Riemann- $q$ -Hilbert Approach. Constructive Approximation, 2005, 21, 351-412.	3.0	34
69	Scalar and matrix Riemann- $q$ -Hilbert approach to the strong asymptotics of Padé approximants and complex orthogonal polynomials with varying weight. Journal of Approximation Theory, 2004, 129, 129-166.	0.8	53
70	WKB and Turning Point Theory for Second-order Difference Equations. , 2004, , 101-138.		7
71	Difference Equations for Multiple Charlier and Meixner Polynomials. , 2004, , 549-557.		5
72	Asymptotics of multiple orthogonal polynomials associated with the modified Bessel functions of the first kind. Journal of Computational and Applied Mathematics, 2003, 153, 141-149.	2.0	23

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73	Some discrete multiple orthogonal polynomials. <i>Journal of Computational and Applied Mathematics</i> , 2003, 153, 19-45.	2.0	79
74	Asymptotique des approximants de Hermite de la fonction exponentielle et problèmes de Riemann-Hilbert. <i>Comptes Rendus Mathématique</i> , 2003, 336, 893-896.	0.3	13
75	Para-Orthogonal Polynomials in Frequency Analysis. <i>Rocky Mountain Journal of Mathematics</i> , 2003, 33, 629.	0.4	15
76	Analysis of Non-Linear Recurrence Relations for the Recurrence Coefficients of Generalized Charlier Polynomials. <i>Journal of Nonlinear Mathematical Physics</i> , 2003, 10, 231.	1.3	20
77	Multiple orthogonal polynomials for classical weights. <i>Transactions of the American Mathematical Society</i> , 2003, 355, 3887-3914.	0.9	125
78	Strong Asymptotics for Relativistic Hermite Polynomials. <i>Rocky Mountain Journal of Mathematics</i> , 2003, 33, 489.	0.4	4
79	Blumenthal's Theorem for Laurent Orthogonal Polynomials. <i>Journal of Approximation Theory</i> , 2002, 117, 255-278.	0.8	14
80	Erratum to "Weighted Zero Distribution For Polynomials Orthogonal on an Infinite Interval". <i>SIAM Journal on Mathematical Analysis</i> , 2001, 32, 1169-1170.	1.9	3
81	Some classical multiple orthogonal polynomials. <i>Journal of Computational and Applied Mathematics</i> , 2001, 127, 317-347.	2.0	107
82	Some properties of multiple orthogonal polynomials associated with Macdonald functions. <i>Journal of Computational and Applied Mathematics</i> , 2001, 133, 253-261.	2.0	18
83	Little q-Legendre Polynomials and Irrationality of Certain Lambert Series. <i>Ramanujan Journal</i> , 2001, 5, 295-310.	0.7	26
84	Lamé differential equations and electrostatics. <i>Proceedings of the American Mathematical Society</i> , 2000, 128, 3621-3628.	0.8	24
85	Functionals of Gegenbauer polynomials and D-dimensional hydrogenic momentum expectation values. <i>Journal of Mathematical Physics</i> , 2000, 41, 6600-6613.	1.1	32
86	Multiple orthogonal polynomials associated with macdonald functions. <i>Integral Transforms and Special Functions</i> , 2000, 9, 229-244.	1.2	50
87	Extremal Polynomials on Discrete Sets. <i>Proceedings of the London Mathematical Society</i> , 1999, 79, 191-221.	1.3	27
88	Perturbation of Orthogonal Polynomials on an Arc of the Unit Circle, II. <i>Journal of Approximation Theory</i> , 1999, 96, 1-32.	0.8	27
89	The Asymptotic Zero Distribution of Orthogonal Polynomials with Varying Recurrence Coefficients. <i>Journal of Approximation Theory</i> , 1999, 99, 167-197.	0.8	107
90	Entropic integrals of hyperspherical harmonics and spatial entropy of D-dimensional central potentials. <i>Journal of Mathematical Physics</i> , 1999, 40, 5675-5686.	1.1	41

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91	A Birth and Death Process Related to the Rogers's Ramanujan Continued Fraction. <i>Journal of Mathematical Analysis and Applications</i> , 1998, 224, 297-315.	1.0	16
92	Tau-Function Constructions of the Recurrence Coefficients of Orthogonal Polynomials. <i>Advances in Applied Mathematics</i> , 1998, 20, 141-168.	0.7	10
93	Information entropy of classical orthogonal polynomials and their application to the harmonic oscillator and Coulomb potentials. <i>Methods and Applications of Analysis</i> , 1997, 4, 91-110.	0.5	47
94	Orthogonal matrix polynomials and applications. <i>Journal of Computational and Applied Mathematics</i> , 1996, 66, 27-52.	2.0	83
95	Upward Extension of the Jacobi Matrix for Orthogonal Polynomials. <i>Journal of Approximation Theory</i> , 1996, 86, 335-357.	0.8	32
96	Compact Jacobi matrices : from Stieltjes to Krein and $M(a, b)$ . <i>Annales De La Faculté Des Sciences De Toulouse</i> , 1996, S5, 195-215.	0.3	13
97	Entropy of orthogonal polynomials with Freud weights and information entropies of the harmonic oscillator potential. <i>Journal of Mathematical Physics</i> , 1995, 36, 4106-4118.	1.1	53
98	Criterion for the resolvent set of nonsymmetric tridiagonal operators. <i>Proceedings of the American Mathematical Society</i> , 1995, 123, 2423-2430.	0.8	28
99	Perturbation of Orthogonal Polynomials on an Arc of the Unit Circle. <i>Journal of Approximation Theory</i> , 1995, 83, 392-422.	0.8	53
100	Weak convergence of orthogonal polynomials. <i>Indagationes Mathematicae</i> , 1995, 6, 7-23.	0.4	13
101	Relative asymptotics for polynomials orthogonal with respect to a discrete Sobolev inner product. <i>Constructive Approximation</i> , 1995, 11, 107-137.	3.0	74
102	Orthogonal polynomials and laurent polynomials related to the Hahn-Extonq-Bessel function. <i>Constructive Approximation</i> , 1995, 11, 477-512.	3.0	16
103	The impact of Stieltjes' work on continued fractions and orthogonal polynomials: additional material. <i>Journal of Computational and Applied Mathematics</i> , 1995, 65, 419-447.	2.0	45
104	Orthogonal matrix polynomials and higher-order recurrence relations. <i>Linear Algebra and Its Applications</i> , 1995, 219, 261-280.	0.9	131
105	Remarks on the $(C, -1)$ -Summability of the Distribution of Zeros of Orthogonal Polynomials. <i>Proceedings of the American Mathematical Society</i> , 1994, 122, 759.	0.8	0
106	Polynomial interpolation and Gaussian quadrature for matrix-valued functions. <i>Linear Algebra and Its Applications</i> , 1994, 207, 71-114.	0.9	62
107	Christoffel functions and Turán determinants on several intervals. <i>Journal of Computational and Applied Mathematics</i> , 1993, 48, 207-223.	2.0	13
108	Quadrature formulas based on rational interpolation. <i>Mathematics of Computation</i> , 1993, 61, 765-783.	2.1	30

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109	Quadrature Formulas Based on Rational Interpolation. <i>Mathematics of Computation</i> , 1993, 61, 765.	2.1	16
110	The Impact of Stieltjes's™ Work on Continued Fractions and Orthogonal Polynomials. , 1993, , 5-37.		11
111	Compact perturbations of orthogonal polynomials. <i>Pacific Journal of Mathematics</i> , 1992, 153, 163-184.	0.5	23
112	Asymptotic Behaviour for Wall Polynomials and the Addition Formula for Little q-Legendre Polynomials. <i>SIAM Journal on Mathematical Analysis</i> , 1991, 22, 302-311.	1.9	10
113	The supports of measures associated with orthogonal polynomials and the spectra of the related self-adjoint operators. <i>Rocky Mountain Journal of Mathematics</i> , 1991, 21, 501.	0.4	36
114	Orthogonal polynomials, associated polynomials and functions of the second kind. <i>Journal of Computational and Applied Mathematics</i> , 1991, 37, 237-249.	2.0	65
115	Approximating the weight function for orthogonal polynomials on several intervals. <i>Journal of Approximation Theory</i> , 1991, 65, 341-371.	0.8	27
116	Relative asymptotics for orthogonal polynomials with unbounded recurrence coefficients. <i>Journal of Approximation Theory</i> , 1990, 62, 47-69.	0.8	18
117	Pollaczek polynomials and summability methods. <i>Journal of Mathematical Analysis and Applications</i> , 1990, 147, 498-505.	1.0	5
118	Norm behavior and zero distribution for orthogonal polynomials with nonsymmetric weights. <i>Constructive Approximation</i> , 1989, 5, 329-345.	3.0	11
119	Sieved orthogonal polynomials and discrete measures with jumps dense in an interval. <i>Proceedings of the American Mathematical Society</i> , 1989, 106, 163-163.	0.8	36
120	Sieved Orthogonal Polynomials and Discrete Measures with Jumps Dense in an Interval. <i>Proceedings of the American Mathematical Society</i> , 1989, 106, 163.	0.8	7
121	Asymptotics for orthogonal polynomials with regularly varying recurrence coefficients. <i>Rocky Mountain Journal of Mathematics</i> , 1989, 19, .	0.4	27
122	On the asymptotic distribution of eigenvalues of banded matrices. <i>Constructive Approximation</i> , 1988, 4, 403-417.	3.0	16
123	Asymptotic properties of orthogonal polynomials from their recurrence formula, II. <i>Journal of Approximation Theory</i> , 1988, 52, 322-338.	0.8	20
124	Asymptotics for orthogonal polynomials on and off the essential spectrum. <i>Journal of Approximation Theory</i> , 1988, 55, 220-231.	0.8	20
125	Eigenvalues of Toeplitz matrices associated with orthogonal polynomials. <i>Journal of Approximation Theory</i> , 1987, 51, 360-371.	0.8	4
126	The ratio of q-like orthogonal polynomials. <i>Journal of Mathematical Analysis and Applications</i> , 1987, 128, 535-547.	1.0	15



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127	Orthogonal polynomials with asymptotically periodic recurrence coefficients. Journal of Approximation Theory, 1986, 46, 251-283.	0.8	100
128	An Asymptotic Problem (Pierre Barrucand). SIAM Review, 1986, 28, 234-238.	9.5	0
129	Products of 2 $\times$ 2 stochastic matrices with random entries. Journal of Applied Probability, 1986, 23, 1019-1024.	0.7	1
130	Asymptotic properties of orthogonal polynomials from their recurrence formula, I. Journal of Approximation Theory, 1985, 44, 258-276.	0.8	24
131	Some results on the asymptotic distribution of the zeros of orthogonal polynomials. Journal of Computational and Applied Mathematics, 1985, 12-13, 615-623.	2.0	6
132	Probabilistic proofs of asymptotic formulas for some classical polynomials. Mathematical Proceedings of the Cambridge Philosophical Society, 1985, 97, 499-510.	0.4	19
133	Weighted Zero Distribution for Polynomials Orthogonal on an Infinite Interval. SIAM Journal on Mathematical Analysis, 1985, 16, 1317-1334.	1.9	15
134	Multidimensional Toda Lattices: Continuous and Discrete Time. Symmetry, Integrability and Geometry: Methods and Applications (SIGMA), 0, , .	0.5	9
135	Discrete Orthogonal Polynomials with Hypergeometric Weights and Painlevé VI. Symmetry, Integrability and Geometry: Methods and Applications (SIGMA), 0, , .	0.5	3
136	Solution of an Open Problem about Two Families of Orthogonal Polynomials. Symmetry, Integrability and Geometry: Methods and Applications (SIGMA), 0, , .	0.5	5
137	Multiple Hermite polynomials and simultaneous Gaussian quadrature. Electronic Transactions on Numerical Analysis, 0, 50, 182-198.	0.0	3