Luis Velazquez

List of Publications by Year
in descending order

38 papers	848 citations	687363 13 h-index	501196 28 g-index
39 all docs	39 docs citations	39 times ranked	305 citing authors

#	Article	IF	Citations
1	Five-diagonal matrices and zeros of orthogonal polynomials on the unit circle. Linear Algebra and Its Applications, 2003, 362, 29-56.	0.9	224
2	Recurrence for Discrete Time Unitary Evolutions. Communications in Mathematical Physics, 2013, 320, 543-569.	2.2	81
3	Quantum Recurrence of a Subspace and Operator-Valued Schur Functions. Communications in Mathematical Physics, 2014, 329, 1031-1067.	2.2	52
4	Bulk-edge correspondence of one-dimensional quantum walks. Journal of Physics A: Mathematical and Theoretical, 2016, 49, 21LT01.	2.1	49
5	Matrix orthogonal polynomials whose derivatives are also orthogonal. Journal of Approximation Theory, 2007, 146, 174-211.	0.8	44
6	The CGMV method for quantum walks. Quantum Information Processing, 2012, 11, 1149-1192.	2.2	43
7	Minimal representations of unitary operators and orthogonal polynomials on the unit circle. Linear Algebra and Its Applications, 2005, 408, 40-65.	0.9	41
8	ONE-DIMENSIONAL QUANTUM WALKS WITH ONE DEFECT. Reviews in Mathematical Physics, 2012, 24, 1250002.	1.7	39
9	The Topological Classification of One-Dimensional Symmetric Quantum Walks. Annales Henri Poincare, 2018, 19, 325-383.	1.7	38
10	Matrixâ€valued SzegÅ‘ polynomials and quantum random walks. Communications on Pure and Applied Mathematics, 2010, 63, 464-507.	3.1	32
11	Measures on the unit circle and unitary truncations of unitary operators. Journal of Approximation Theory, 2006, 139, 430-468.	0.8	23
12	Complete homotopy invariants for translation invariant symmetric quantum walks on a chain. Quantum - the Open Journal for Quantum Science, 0, 2, 95.	0.0	21
13	A pseudoclassical model for the massive Dirac particle in d dimensions. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 1993, 306, 34-40.	4.1	17
14	Spectral methods for orthogonal rational functions. Journal of Functional Analysis, 2008, 254, 954-986.	1.4	14
15	Darboux transformations for CMV matrices. Advances in Mathematics, 2016, 298, 122-206.	1.1	14
16	A generalization of Schur functions: Applications to Nevanlinna functions, orthogonal polynomials, random walks and unitary and open quantum walks. Advances in Mathematics, 2018, 326, 352-464.	1.1	13
17	ELECTROMAGNETIC INTERACTION OF ANYONS IN NONRELATIVISTIC QUANTUM FIELD THEORY. International Journal of Modern Physics A, 1994, 09, 953-967.	1.5	11
18	A Quantum Dynamical Approach to Matrix Khrushchev's Formulas. Communications on Pure and Applied Mathematics, 2016, 69, 909-957.	3.1	11

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19	Electromagnetic interaction of anyons. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 1992, 286, 105-108.	4.1	10
20	Universal time evolution of a Rydberg lattice gas with perfect blockade. Journal of Physics A: Mathematical and Theoretical, 2012, 45, 325301.	2.1	9
21	Quantum Markov Chains: Recurrence, Schur Functions and Splitting Rules. Annales Henri Poincare, 2020, 21, 189-239.	1.7	9
22	A Nambu-Jona-Lasinio like model from QCD at low energies. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 1998, 432, 397-401.	4.1	8
23	Extended dualization: A method for the bosonization of anomalous fermion systems in arbitrary dimension. Physical Review D, 1996, 53, 5952-5965.	4.7	6
24	Self-adjointness of unbounded tridiagonal operators and spectra of their finite truncations. Journal of Mathematical Analysis and Applications, 2014, 420, 852-872.	1.0	6
25	Direct and inverse polynomial perturbations of hermitian linear functionals. Journal of Approximation Theory, 2011, 163, 988-1028.	0.8	5
26	Second order formalism for fermions. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 1993, 313, 108-114.	4.1	4
27	A U(1) gauge theory for anyons. Nuclear Physics B, 1993, 392, 645-666.	2.5	4
28	Quantum Walks: Schur Functions Meet Symmetry Protected Topological Phases. Communications in Mathematical Physics, 2022, 389, 31-74.	2.2	4
29	A connection between orthogonal polynomials on the unit circle and matrix orthogonal polynomials on the real line. Journal of Computational and Applied Mathematics, 2003, 154, 247-272.	2.0	3
30	An extension of the associated rational functions on the unit circle. Journal of Approximation Theory, 2011, 163, 524-546.	0.8	3
31	The Quantum Walk of F. Riesz. , 0, , 93-112.		3
32	Differential inequalities of functions involving the lowest zero of some associated orthogonalq-polynomials. Integral Transforms and Special Functions, 2005, 16, 337-376.	1.2	2
33	Wall Rational Functions and Khrushchevâ€™s Formula forÂOrthogonal Rational Functions. Constructive Approximation, 2009, 30, 277-297.	3.0	2
34	A CMV connection between orthogonal polynomials on the unit circle and the real line. Journal of Approximation Theory, 2021, 266, 105579.	0.8	1
35	Mean hitting time formula for positive maps. Linear Algebra and Its Applications, 2022, 650, 169-189.	0.9	1
36	The CMV Bispectral Problem. International Mathematics Research Notices, 0, , rnw186.	1.0	0

#	Article	IF	Citations
37	Darboux Transformations for Orthogonal Polynomials on the Real Line and on the Unit Circle. SEMA SIMAI Springer Series, 2021, , 53-75.	0.7	0
38	Wall Polynomials on the Real Line: A Classical Approach to OPRL Khrushchevâ€™s Formula. Constructive Approximation, 0, , .	3.0	0