

# Roberto Floreanini

## List of Publications by Year in descending order

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64  
papers

1,703  
citations

361045

20  
h-index

288905

40  
g-index

66  
all docs

66  
docs citations

66  
times ranked

1013  
citing authors

#	ARTICLE	IF	CITATIONS
1	Environment Induced Entanglement in Markovian Dissipative Dynamics. <i>Physical Review Letters</i> , 2003, 91, 070402.	2.9	347
2	Quantum-enhanced measurements without entanglement. <i>Reviews of Modern Physics</i> , 2018, 90, .	16.4	257
3	OPEN QUANTUM DYNAMICS: COMPLETE POSITIVITY AND ENTANGLEMENT. <i>International Journal of Modern Physics B</i> , 2005, 19, 3063-3139.	1.0	128
4	q-Orthogonal polynomials and the oscillator quantum group. <i>Letters in Mathematical Physics</i> , 1991, 22, 45-54.	0.5	73
5	Lie symmetries of finite-difference equations. <i>Journal of Mathematical Physics</i> , 1995, 36, 7024-7042.	0.5	69
6	q-Oscillator realizations of the quantum superalgebras $osp_q(m, n)$ and $osp_q(m, 2n)$ . <i>Communications in Mathematical Physics</i> , 1991, 137, 149-160.	1.0	66
7	On the defining relations of quantum superalgebras. <i>Letters in Mathematical Physics</i> , 1991, 23, 127-131.	0.5	53
8	Bosonic realization of the quantum superalgebra $osp_q(1, 2n)$ . <i>Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics</i> , 1990, 242, 383-386.	1.5	43
9	Symmetries of the heat equation on the lattice. <i>Letters in Mathematical Physics</i> , 1996, 36, 351-355.	0.5	41
10	Symmetries of the q-difference heat equation. <i>Letters in Mathematical Physics</i> , 1994, 32, 37-44.	0.5	36
11	Automorphisms of the q-oscillator algebra and basic orthogonal polynomials. <i>Physics Letters, Section A: General, Atomic and Solid State Physics</i> , 1993, 180, 393-401.	0.9	33
12	On the quantum group and quantum algebra approach to q-special functions. <i>Letters in Mathematical Physics</i> , 1993, 27, 179-190.	0.5	31
13	A model for the continuous q-ultraspherical polynomials. <i>Journal of Mathematical Physics</i> , 1995, 36, 3800-3813.	0.5	31
14	Quantum symmetries of q-difference equations. <i>Journal of Mathematical Physics</i> , 1995, 36, 3134-3156.	0.5	30
15	Non-Decomposable Quantum Dynamical Semigroups and Bound Entangled States. <i>Open Systems and Information Dynamics</i> , 2004, 11, 325-338.	0.5	29
16	The polynomial $SU(2)$ symmetry algebra of the two-body Calogero model. <i>Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics</i> , 1996, 389, 327-333.	1.5	25
17	Testing Complete Positivity. <i>Modern Physics Letters A</i> , 1997, 12, 1465-1472.	0.5	24
18	Photon number statistics uncover the fluctuations in non-equilibrium lattice dynamics. <i>Nature Communications</i> , 2015, 6, 10249.	5.8	23

#	ARTICLE	IF	CITATIONS
19	Conformal parasuperalgebras and their realizations on the line. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 1989, 233, 158-162.	1.5	20
20	Quantum dynamical semigroups and non-decomposable positive maps. Physics Letters, Section A: General, Atomic and Solid State Physics, 2004, 326, 187-198.	0.9	20
21	Addition formulas for $q$ -Bessel functions. Journal of Mathematical Physics, 1992, 33, 2984-2988.	0.5	19
22	Complete positivity and dissipative factorized dynamics. Journal of Physics A, 2002, 35, L551-L556.	1.6	18
23	$q$ -gamma and $q$ -beta functions in quantum algebra representation theory. Journal of Computational and Applied Mathematics, 1996, 68, 57-68.	1.1	17
24	Non-divisibility and non-Markovianity in a Gaussian dissipative dynamics. Physics Letters, Section A: General, Atomic and Solid State Physics, 2012, 376, 2951-2954.	0.9	17
25	Using quantum algebras in $q$ -special function theory. Physics Letters, Section A: General, Atomic and Solid State Physics, 1992, 170, 21-28.	0.9	16
26	The metaplectic representation of $\mathfrak{su}(1,1)$ and the $q$ -Gegenbauer polynomials. Journal of Mathematical Physics, 1992, 33, 1358-1362.	0.5	15
27	$q$ -oscillator realizations of the metaplectic representation of quantum $\mathfrak{osp}(3,2)$ . Journal of Mathematical Physics, 1991, 32, 1427-1429.	0.5	12
28	An algebraic interpretation of the continuous big $q$ -Hermite polynomials. Journal of Mathematical Physics, 1995, 36, 5091-5097.	0.5	12
29	Redfield reduced dynamics and entanglement. Journal of Physics A: Mathematical and Theoretical, 2007, 40, 1625-1632.	0.7	12
30	$q$ -conformal quantum mechanics and $q$ -special functions. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 1992, 277, 442-446.	1.5	11
31	Complete positivity and the neutral kaon system. Banach Center Publications, 1998, 43, 71-85.	0.1	11
32	Sigma models with purely Wess-Zumino-Witten actions. Nuclear Physics B, 1989, 322, 255-276.	0.9	10
33	Infinite dimensional algebras in Chern-Simons quantum mechanics. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 1991, 261, 51-56.	1.5	10
34	Parasupersymmetry in quantum mechanics and field theory. Physical Review D, 1991, 44, 3851-3856.	1.6	10
35	Symmetry techniques for the Al-Salam - Chihara polynomials. Journal of Physics A, 1997, 30, 3107-3114.	1.6	10
36	Cooper pair boxes weakly coupled to external environments. Journal of Physics A: Mathematical and Theoretical, 2008, 41, 235304.	0.7	9

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37	Vacuum state of complex scalar fields in SO(2,1)-invariant backgrounds. Physical Review D, 1987, 36, 1731-1739.	1.6	8
38	Dissipative dynamics of quantum fluctuations. Annalen Der Physik, 2015, 527, 639-655.	0.9	8
39	Loss of coherence and memory effects in quantum dynamics. Journal of Physics B: Atomic, Molecular and Optical Physics, 2012, 45, 150201.	0.6	7
40	Generation and detection of squeezed phonons in lattice dynamics by ultrafast optical excitations. New Journal of Physics, 2017, 19, 023032.	1.2	7
41	Functional representation of the superconformal group in two dimensions. Physical Review D, 1988, 38, 543-546.	1.6	6
42	Generalized $q$ -Bessel functions. Canadian Journal of Physics, 1994, 72, 345-354.	0.4	6
43	Entanglement and algebraic independence in fermion systems. International Journal of Quantum Information, 2014, 12, 1461002.	0.6	6
44	Complete Positivity and Thermodynamics in a Driven Open Quantum System. Journal of Statistical Physics, 2015, 159, 1127-1153.	0.5	6
45	Quantum algebra approach to $q$ Gegenbauer polynomials. Journal of Computational and Applied Mathematics, 1995, 57, 123-133.	1.1	5
46	Noise effects in perfect transmission of quantum states. Physical Review A, 2012, 86, .	1.0	5
47	Entanglement and Non-Locality in Quantum Protocols with Identical Particles. Entropy, 2021, 23, 479.	1.1	5
48	The dynamical algebra of the three-body Calogero model. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 1998, 421, 229-236.	1.5	4
49	Algebraic description of SN-invariant oscillator states. Journal of Mathematical Physics, 1998, 39, 5739-5761.	0.5	4
50	Tests of Complete Positivity in Fiber Optics. Open Systems and Information Dynamics, 2006, 13, 229-238.	0.5	4
51	Extended reduction criterion and lattice states. Journal of Mathematical Physics, 2007, 48, 052103.	0.5	4
52	Braid group action on the $q$ -Weyl algebra. Letters in Mathematical Physics, 1991, 23, 151-158.	0.5	3
53	A $q$ -deformed $e(4)$ and continuous $q$ -Jacobi polynomials. Journal of Mathematical Physics, 1996, 37, 4135-4149.	0.5	3
54	Charge oscillations in superconducting nanodevices coupled to external environments. Physics Letters, Section A: General, Atomic and Solid State Physics, 2008, 372, 1968-1971.	0.9	3

#	ARTICLE	IF	CITATIONS
55	q-difference realizations of quantum algebras. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 1993, 315, 299-303.	1.5	2
56	q-Hypergeometric functions, quantum algebras and free fields. Theoretical and Mathematical Physics(Russian Federation), 1994, 98, 259-265.	0.3	2
57	Noise Induced Current in a Double-Well Trap. Open Systems and Information Dynamics, 2008, 15, 143-153.	0.5	2
58	Quantum contextuality in $N$ -boson systems. Physical Review A, 2011, 84, .	1.0	2
59	Schrödinger picture for self-dual superfields. Physical Review D, 1989, 40, 450-455.	1.6	1
60	Symmetries of semiclassical gravity in two dimensions. Physical Review D, 1990, 41, 1862-1866.	1.6	1
61	Stochastic quantization of non-renormalizable theories. Zeitschrift für Physik C-Particles and Fields, 1985, 27, 447-453.	1.5	0
62	Quantum Superalgebra, q-oscillator realization. , 2004, , 327-328.		0
63	Quantum Algebras and Quantum Groups in q-Special Function Theory. , 1993, , 83-94.		0
64	A Quantum Algebraic Interpretation of the Basic Hypergeometric Series ${}_1\hat{F}_1$ s. , 1993, , 235-245.		0