

Fabio Bagarello

List of Publications by Year in descending order

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189
papers

2,570
citations

201674

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35
g-index

209
all docs

209
docs citations

209
times ranked

361
citing authors

#	ARTICLE	IF	CITATIONS
1	Pseudo-Bosons and Their Coherent States. Letters in Mathematical Physics, 2022, , .	0.6	10
2	A Swanson-like Hamiltonian and the inverted harmonic oscillator. Journal of Physics A: Mathematical and Theoretical, 2022, 55, 225204.	2.1	5
3	Bi-coherent states as generalized eigenstates of the position and the momentum operators. Zeitschrift Fur Angewandte Mathematik Und Physik, 2022, 73, .	1.4	2
4	Some results on the rotated infinitely deep potential and its coherent states. Physica A: Statistical Mechanics and Its Applications, 2021, 564, 125565.	2.6	1
5	Coupled Susy, pseudo-bosons and a deformed $su(1,1)$ Lie algebra. Journal of Physics A: Mathematical and Theoretical, 2021, 54, 145201.	2.1	2
6	Topological Decompositions of the Pauli Group and their Influence on Dynamical Systems. Mathematical Physics Analysis and Geometry, 2021, 24, 1.	1.0	2
7	A chain of solvable non-Hermitian Hamiltonians constructed by a series of metric operators. Annals of Physics, 2021, 430, 168511.	2.8	6
8	Pseudo-bosons and bi-coherent states out of \hat{a}, \hat{a}^\dagger . Journal of Physics: Conference Series, 2021, 2038, 012001.	0.4	8
9	Hamiltonians Generated by Parseval Frames. Acta Applicandae Mathematicae, 2021, 171, 1.	1.0	2
10	One-directional quantum mechanical dynamics and an application to decision making. Physica A: Statistical Mechanics and Its Applications, 2020, 537, 122739.	2.6	2
11	Spreading of Competing Information in a Network. Entropy, 2020, 22, 1169.	2.2	12
12	Modeling epidemics through ladder operators. Chaos, Solitons and Fractals, 2020, 140, 110193.	5.1	3
13	Bicoherent-state path integral quantization of a non-hermitian hamiltonian. Annals of Physics, 2020, 422, 168313.	2.8	7
14	Gibbs States, Algebraic Dynamics and Generalized Riesz Systems. Complex Analysis and Operator Theory, 2020, 14, 1.	0.6	0
15	Susy for Non-Hermitian Hamiltonians, with a View to Coherent States. Mathematical Physics Analysis and Geometry, 2020, 23, 1.	1.0	2
16	Some remarks on few recent results on the damped quantum harmonic oscillator. Annals of Physics, 2020, 414, 168091.	2.8	6
17	Eigenvalues of non-Hermitian matrices: A dynamical and an iterative approach Application to a truncated Swanson model. Mathematical Methods in the Applied Sciences, 2020, 43, 5758-5775.	2.3	2
18	Weak pseudo-bosons. Journal of Physics A: Mathematical and Theoretical, 2020, 53, 135201.	2.1	11

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19	Generalized Riesz Systems and Quasi Bases in Hilbert Space. Mediterranean Journal of Mathematics, 2020, 17, 1.	0.8	4
20	Generalized Riesz systems and orthonormal sequences in Krein spaces. Journal of Physics A: Mathematical and Theoretical, 2020, 53, 085202.	2.1	3
21	Fourier transforms, fractional derivatives, and a little bit of quantum mechanics. Rocky Mountain Journal of Mathematics, 2020, 50, .	0.4	3
22	Tridiagonality, supersymmetry and non self-adjoint Hamiltonians. Journal of Physics A: Mathematical and Theoretical, 2019, 52, 355203.	2.1	5
23	A no-go result for the quantum damped harmonic oscillator. Physics Letters, Section A: General, Atomic and Solid State Physics, 2019, 383, 2836-2838.	2.1	14
24	Why a Quantum Tool in Classical Contexts? (Part II). , 2019, , 1-4.		0
25	Some Preliminaries. , 2019, , 7-56.		0
26	Desertification. , 2019, , 113-140.		0
27	Escape Strategies. , 2019, , 141-167.		0
28	Closed Ecosystems. , 2019, , 168-193.		0
29	More on Biological Systems. , 2019, , 194-205.		0
30	Quantum Game of Life and Its (H, \mathfrak{I}) -Induced Dynamics. , 2019, , 206-216.		0
31	Prehistoric Data Mining. , 2019, , 217-233.		0
32	A Simple Model of Information in Stock Markets. , 2019, , 234-249.		0
33	Decision-Making Driven by the Environment. , 2019, , 250-266.		0
34	Compatible and Incompatible Questions. , 2019, , 267-286.		0
35	This Is Not the End! . , 2019, , 287-289.		0
36	A dynamical approach to compatible and incompatible questions. Physica A: Statistical Mechanics and Its Applications, 2019, 527, 121282.	2.6	2

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55	A model of adaptive decision-making from representation of information environment by quantum fields. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2017, 375, 20170162.	3.4	28
56	Coordinate representation for non-Hermitian position and momentum operators. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2017, 473, 20170434.	2.1	11
57	A concise review of pseudobosons, pseudofermions, and their relatives. Theoretical and Mathematical Physics(Russian Federation), 2017, 193, 1680-1693.	0.9	9
58	Large-scale effects of migration and conflict in pre-agricultural groups: Insights from a dynamic model. PLoS ONE, 2017, 12, e0172262.	2.5	24
59	Intertwining operators for non-self-adjoint Hamiltonians and bicoherent states. Journal of Mathematical Physics, 2016, 57, 103501.	1.1	14
60	Appearances of pseudo-bosons from Black-Scholes equation. Journal of Mathematical Physics, 2016, 57, .	1.1	8
61	Exceptional Points in a Non-Hermitian Extension of the Jaynes-Cummings Hamiltonian. Springer Proceedings in Physics, 2016, , 83-95.	0.2	0
62	\mathcal{D} -Deformed and SUSY-Deformed Graphene: First Results. Springer Proceedings in Physics, 2016, , 97-122.	0.2	2
63	An Operatorial Description of Desertification. SIAM Journal on Applied Mathematics, 2016, 76, 479-499.	1.8	30
64	Gibbs states defined by biorthogonal sequences. Journal of Physics A: Mathematical and Theoretical, 2016, 49, 405202.	2.1	5
65	PT-symmetric graphene under a magnetic field. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2016, 472, 20160365.	2.1	7
66	Non-self-adjoint Hamiltonians with complex eigenvalues. Journal of Physics A: Mathematical and Theoretical, 2016, 49, 215304.	2.1	7
67	An improved model of alliances between political parties. Ricerche Di Matematica, 2016, 65, 399-412.	1.0	19
68	First results on applying a non-linear effect formalism to alliances between political parties and buy and sell dynamics. Physica A: Statistical Mechanics and Its Applications, 2016, 444, 403-414.	2.6	16
69	Recent Results on Operator Techniques in the Description of Macroscopic Systems. , 2016, , 283-314.		0
70	Generalized Bogoliubov transformations versus \mathcal{D} -pseudo-bosons. Journal of Mathematical Physics, 2015, 56, .	1.1	6
71	\mathcal{D} -Deformed Harmonic Oscillators. International Journal of Theoretical Physics, 2015, 54, 4110-4123.	1.2	12
72	Non-Hermitian Hamiltonian for a modulated Jaynes-Cummings model with PTsymmetry. Physical Review A, 2015, 91, .	2.5	29

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73	A phenomenological operator description of dynamics of crowds: Escape strategies. Applied Mathematical Modelling, 2015, 39, 2276-2294.	4.2	45
74	Some results on the dynamics and transition probabilities for non self-adjoint hamiltonians. Annals of Physics, 2015, 356, 171-184.	2.8	17
75	An Operator View on Alliances in Politics. SIAM Journal on Applied Mathematics, 2015, 75, 564-584.	1.8	47
76	A Quantum-Like View to a Generalized Two Players Game. International Journal of Theoretical Physics, 2015, 54, 3612-3627.	1.2	29
77	Toward a formalization of a two traders market with information exchange. Physica Scripta, 2015, 90, 015203.	2.5	32
78	Transition probabilities for non self-adjoint Hamiltonians in infinite dimensional Hilbert spaces. Annals of Physics, 2015, 362, 424-435.	2.8	14
79	Model pseudofermionic systems: Connections with exceptional points. Physical Review A, 2014, 89, .	2.5	21
80	Non-self-adjoint hamiltonians defined by Riesz bases. Journal of Mathematical Physics, 2014, 55, .	1.1	29
81	Some invariant biorthogonal sets with an application to coherent states. Journal of Mathematical Analysis and Applications, 2014, 415, 462-476.	1.0	2
82	Matrix Computations for the Dynamics of Fermionic Systems. International Journal of Theoretical Physics, 2014, 53, 555-565.	1.2	1
83	Dynamics of closed ecosystems described by operators. Ecological Modelling, 2014, 275, 89-99.	2.5	35
84	Quantum Ideas for Classical Systems. Acta Applicandae Mathematicae, 2014, 132, 27-39.	1.0	0
85	The role of information in a two-traders market. Physica A: Statistical Mechanics and Its Applications, 2014, 404, 224-233.	2.6	30
86	Extended pseudo-fermions from non commutative bosons. Journal of Mathematical Physics, 2013, 54, .	1.1	5
87	Pseudo-fermions in an Electronic Loss-Gain Circuit. International Journal of Theoretical Physics, 2013, 52, 4507-4518.	1.2	5
88	More mathematics for pseudo-bosons. Journal of Mathematical Physics, 2013, 54, 063512.	1.1	32
89	Damping and pseudo-fermions. Journal of Mathematical Physics, 2013, 54, .	1.1	10
90	pseudo-bosons in quantum models. Physics Letters, Section A: General, Atomic and Solid State Physics, 2013, 377, 3199-3204.	2.1	10

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109	Nonlinear pseudo-bosons versus hidden Hermiticity. Journal of Physics A: Mathematical and Theoretical, 2011, 44, 415305.	2.1	15
110	Non-isospectral Hamiltonians, intertwining operators and hidden hermiticity. Physics Letters, Section A: General, Atomic and Solid State Physics, 2011, 376, 70-74.	2.1	3
111	Two-Parameters Pseudo-Bosons. International Journal of Theoretical Physics, 2011, 50, 1060-1065.	1.2	3
112	A Note on the Pais-Uhlenbeck Model and Its Coherent States. International Journal of Theoretical Physics, 2011, 50, 3241-3250.	1.2	6
113	Damping in quantum love affairs. Physica A: Statistical Mechanics and Its Applications, 2011, 390, 2803-2811.	2.6	29
114	Weak commutation relations of unbounded operators and applications. Journal of Mathematical Physics, 2011, 52, 113508.	1.1	7
115	Locally convex quasi C^* -normed algebras. Journal of Mathematical Analysis and Applications, 2010, 366, 593-606.		10
116	Examples of pseudo-bosons in quantum mechanics. Physics Letters, Section A: General, Atomic and Solid State Physics, 2010, 374, 3823-3827.	2.1	44
117	Modular structures on trace class operators and applications to Landau levels. Journal of Physics A: Mathematical and Theoretical, 2010, 43, 105202.	2.1	30
118	An Operator-Like Description of Love Affairs. SIAM Journal on Applied Mathematics, 2010, 70, 3235-3251.	1.8	26
119	Modified Landau levels, damped harmonic oscillator, and two-dimensional pseudo-bosons. Journal of Mathematical Physics, 2010, 51, 123502.	1.1	21
120	Pseudobosons, Riesz bases, and coherent states. Journal of Mathematical Physics, 2010, 51, .	1.1	54
121	Construction of pseudobosons systems. Journal of Mathematical Physics, 2010, 51, .	1.1	14
122	Mathematical aspects of intertwining operators: the role of Riesz bases. Journal of Physics A: Mathematical and Theoretical, 2010, 43, 175203.	2.1	25
123	Pseudo-Bosons from Landau Levels. Symmetry, Integrability and Geometry: Methods and Applications (SIGMA), 2010, , .	0.5	2
124	Intertwining operators between different Hilbert spaces: Connection with frames. Journal of Mathematical Physics, 2009, 50, 043509.	1.1	16
125	Vector coherent states and intertwining operators. Journal of Physics A: Mathematical and Theoretical, 2009, 42, 075302.	2.1	20
126	A quantum statistical approach to simplified stock markets. Physica A: Statistical Mechanics and Its Applications, 2009, 388, 4397-4406.	2.6	28

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127	Quons, coherent states and intertwining operators. Physics Letters, Section A: General, Atomic and Solid State Physics, 2009, 373, 2637-2642.	2.1	28
128	Representations and derivations of quasi \hat{a} -algebras induced by local modifications of states. Journal of Mathematical Analysis and Applications, 2009, 356, 615-623.	1.0	4
129	Simplified stock markets described by number operators. Reports on Mathematical Physics, 2009, 63, 381-398.	0.8	15
130	Bicommutants of reduced unbounded operator algebras. Proceedings of the American Mathematical Society, 2009, 137, 3709-3709.	0.8	2
131	Extended SUSY quantum mechanics, intertwining operators and coherent states. Physics Letters, Section A: General, Atomic and Solid State Physics, 2008, 372, 6226-6231.	2.1	22
132	Multiplication of distributions in any dimension: Applications to \hat{I} -function and its derivatives. Journal of Mathematical Analysis and Applications, 2008, 337, 1337-1344.	1.0	5
133	Gabor-like systems in $\mathbb{L}^2(\mathbb{R}^d)$ and extensions to wavelets. Journal of Physics A: Mathematical and Theoretical, 2008, 41, 335208.	2.1	1
134	O \hat{a} -algebras and quantum dynamics: Some existence results. Journal of Mathematical Physics, 2008, 49, 053522.	1.1	0
135	Supersymmetric associated vector coherent states and generalized Landau levels arising from two-dimensional supersymmetry. Journal of Mathematical Physics, 2008, 49, 032110.	1.1	19
136	Structure of locally convex quasi C^* -algebras. Journal of the Mathematical Society of Japan, 2008, 60, .	0.4	10
137	Invariant analytic orthonormalization procedure with an application to coherent states. Journal of Mathematical Physics, 2007, 48, 043505.	1.1	4
138	Bounded version of bosonic creation and annihilation operators and their related quasicohherent states. Journal of Mathematical Physics, 2007, 48, 013511.	1.1	1
139	ALGEBRAS OF UNBOUNDED OPERATORS AND PHYSICAL APPLICATIONS: A SURVEY. Reviews in Mathematical Physics, 2007, 19, 231-271.	1.7	44
140	Stock markets and quantum dynamics: A second quantized description. Physica A: Statistical Mechanics and Its Applications, 2007, 386, 283-302.	2.6	32
141	An invariant analytic orthonormalization procedure with applications. Journal of Mathematical Physics, 2007, 48, 103513.	1.1	2
142	The Heisenberg picture in the analysis of stock markets and in other sociological contexts. Quality and Quantity, 2007, 41, 533-544.	3.7	4
143	Physical Applications of Algebras of Unbounded Operators. , 2007, , 93-121.		0
144	A note on faithful traces on a von Neumann algebra. Rendiconti Del Circolo Matematico Di Palermo, 2006, 55, 21-28.	1.3	2

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145	An operatorial approach to stock markets. <i>Journal of Physics A</i> , 2006, 39, 6823-6840.	1.6	44
146	Quasi \ast -algebras of measurable operators. <i>Studia Mathematica</i> , 2006, 172, 289-305.	0.7	22
147	A Non-Commutative Approach to Ordinary Differential Equations. <i>International Journal of Theoretical Physics</i> , 2005, 44, 1193-1216.	1.2	0
148	The Role of a Second Reservoir in an Open BCS Model. <i>Open Systems and Information Dynamics</i> , 2005, 12, 401-420.	1.2	2
149	Exponentiating derivations of quasi \ast -algebras: possible approaches and applications. <i>International Journal of Mathematics and Mathematical Sciences</i> , 2005, 2005, 2805-2820.	0.7	16
150	Relations between multiresolution analysis and quantum mechanics. <i>Journal of Mathematical Physics</i> , 2005, 46, 053506.	1.1	3
151	Some physical appearances of vector coherent states and coherent states related to degenerate Hamiltonians. <i>Journal of Mathematical Physics</i> , 2005, 46, 053518.	1.1	26
152	THE OPEN BCS MODEL, ITS STOCHASTIC LIMIT AND SOME GENERALIZATIONS. <i>Fluctuation and Noise Letters</i> , 2005, 05, L343-L348.	1.5	0
153	Many-body applications of the stochastic limit: A review. <i>Reports on Mathematical Physics</i> , 2005, 56, 117-152.	0.8	3
154	Derivations of quasi \ast -algebras. <i>International Journal of Mathematics and Mathematical Sciences</i> , 2004, 2004, 1077-1096.	0.7	19
155	The stochastic limit in the analysis of the open BCS model. <i>Journal of Physics A</i> , 2004, 37, 2537-2548.	1.6	3
156	Generation of Frames. <i>International Journal of Theoretical Physics</i> , 2004, 43, 529-544.	1.2	1
157	A Noncommutative Approach to Ordinary Differential Equations. <i>International Journal of Theoretical Physics</i> , 2004, 43, 2371-2394.	1.2	0
158	The Stochastic Limit of the Fr�hlich Hamiltonian: Relations with the Quantum Hall Effect. <i>International Journal of Theoretical Physics</i> , 2003, 42, 2515-2530.	1.2	4
159	Localization Properties and Wavelet-Like Orthonormal Bases for the Lowest Landau Level. , 2003, , 223-258.		9
160	Multiresolution analysis generated by a seed function. <i>Journal of Mathematical Physics</i> , 2003, 44, 1519-1534.	1.1	3
161	Multi-resolution analysis and fractional quantum Hall effect: more results. <i>Journal of Physics A</i> , 2003, 36, 123-138.	1.6	7
162	Algebraic dynamics in O^* -algebras: A perturbative approach. <i>Journal of Mathematical Physics</i> , 2002, 43, 3280-3292.	1.1	13

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163	Multiplications of Distributions in One Dimension and a First Application to Quantum Field Theory. Journal of Mathematical Analysis and Applications, 2002, 266, 298-320.	1.0	21
164	Relations between the Hepp-Lieb and the Alli-Sewell Laser Models. Annales Henri Poincare, 2002, 3, 983-1002.	1.7	6
165	Some classes of topological quasi W^* -algebras. Proceedings of the American Mathematical Society, 2001, 129, 2973-2980.	0.8	34
166	Multi-resolution analysis and fractional quantum Hall effect: An equivalence result. Journal of Mathematical Physics, 2001, 42, 5116-5129.	1.1	9
167	Fixed points in topological W^* -algebras of unbounded operators. Publications of the Research Institute for Mathematical Sciences, 2001, 37, 397-418.	0.8	9
168	Morphisms of Certain Banach C^* -Modules. Publications of the Research Institute for Mathematical Sciences, 2000, 36, 681-705.	0.8	24
169	Locally Convex C^* -Algebras and the Thermodynamical Limit of Quantum Models. International Society for Analysis, Applications and Computation, 2000, , 651-659.	0.1	0
170	TOPOLOGICAL PARTIAL C^* -ALGEBRAS: BASIC PROPERTIES AND EXAMPLES. Reviews in Mathematical Physics, 1999, 11, 267-302.	1.7	11
171	New structures in the theory of the laser model. II. Microscopic dynamics and a nonequilibrium entropy principle. Journal of Mathematical Physics, 1998, 39, 2730-2747.	1.1	25
172	Applications of topological C^* -algebras of unbounded operators. Journal of Mathematical Physics, 1998, 39, 6091-6105.	1.1	21
173	The Heisenberg dynamics of spin systems: A quasi W^* -algebras approach. Journal of Mathematical Physics, 1996, 37, 4219-4234.	1.1	30
174	Applications of wavelets to quantum mechanics: a pedagogical example. Journal of Physics A, 1996, 29, 565-576.	1.6	8
175	CQ^* -Algebras: Structure Properties. Publications of the Research Institute for Mathematical Sciences, 1996, 32, 85-116.	0.8	43
176	L_p -Spaces as Quasi C^* -Algebras. Journal of Mathematical Analysis and Applications, 1996, 197, 810-824.	1.0	35
177	Multiplication of Distributions in One Dimension: Possible Approaches and Applications to $\hat{\Gamma}$ -Function and Its Derivatives. Journal of Mathematical Analysis and Applications, 1995, 196, 885-901.	1.0	27
178	More wavelet-like orthonormal bases for the lowest Landau level: some considerations. Journal of Physics A, 1994, 27, 5583-5597.	1.6	5
179	Wavelet-like orthonormal bases for the lowest Landau level. Journal of Physics A, 1994, 27, 2471-2481.	1.6	9
180	Some analytical considerations on two-scale relations. Il Nuovo Cimento B, 1994, 109, 871-890.	0.1	0

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181	A Note on the algebraic approach to the \hat{A} «almost \hat{A} » mean-field Heisenberg model. Societa Italiana Di Fisica Nuovo Cimento B-General Physics, Relativity Astronomy and Mathematical Physics and Methods, 1993, 108, 779-784.	0.2	14
182	Quantum corrections to the Wigner crystal: A Hartree-Fock expansion. Physical Review B, 1993, 48, 5306-5314.	3.2	14
183	Dynamics of mean-field spin models from basic results in abstract differential equations. Journal of Statistical Physics, 1992, 66, 849-866.	1.2	50
184	?Almost? mean-field ising model: An algebraic approach. Journal of Statistical Physics, 1991, 65, 469-482.	1.2	17
185	Transitions in Presence of Short Laser Pulses. Journal of Modern Optics, 1990, 37, 217-226.	1.3	2
186	Three-state quantum systems: A procedure for the solution. Nuovo Cimento Della Societa Italiana Di Fisica D - Condensed Matter, Atomic, Molecular and Chemical Physics, Biophysics, 1989, 11, 405-418.	0.4	3
187	Nonstandard analysis in classical physics and quantum formal scattering. International Journal of Theoretical Physics, 1988, 27, 557-566.	1.2	7
188	Abstract ladder operators and their applications. Journal of Physics A: Mathematical and Theoretical, 0, , .	2.1	3
189	D-Pseudo-Bosons, Complex Hermite Polynomials, and Integral Quantization. Symmetry, Integrability and Geometry: Methods and Applications (SIGMA), 0, , .	0.5	5