

Sergey Filippov

List of Publications by Year in descending order

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67
papers

1,034
citations

430754

18
h-index

477173

29
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67
all docs

67
docs citations

67
times ranked

609
citing authors

#	ARTICLE	IF	CITATIONS
1	Simulation of indivisible qubit channels in collision models. <i>Journal of Physics B: Atomic, Molecular and Optical Physics</i> , 2012, 45, 154006.	0.6	80
2	Divisibility of quantum dynamical maps and collision models. <i>Physical Review A</i> , 2017, 96, .	1.0	70
3	Machine Learning Non-Markovian Quantum Dynamics. <i>Physical Review Letters</i> , 2020, 124, 140502.	2.9	63
4	Simulation Complexity of Open Quantum Dynamics: Connection with Tensor Networks. <i>Physical Review Letters</i> , 2019, 122, 160401.	2.9	60
5	Towards higher precision and operational use of optical homodyne tomograms. <i>Physical Review A</i> , 2012, 85, .	1.0	48
6	Local two-qubit entanglement-annihilating channels. <i>Physical Review A</i> , 2012, 85, .	1.0	33
7	Inverse spin-s portrait and representation of qudit states by single probability vectors. <i>Journal of Russian Laser Research</i> , 2010, 31, 32-54.	0.3	29
8	Mutually unbiased bases: tomography of spin states and the star-product scheme. <i>Physica Scripta</i> , 2011, T143, 014010.	1.2	29
9	Dissociation and annihilation of multipartite entanglement structure in dissipative quantum dynamics. <i>Physical Review A</i> , 2013, 88, .	1.0	29
10	Entanglement sensitivity to signal attenuation and amplification. <i>Physical Review A</i> , 2014, 90, .	1.0	29
11	Optical tomography of Fock state superpositions. <i>Physica Scripta</i> , 2011, 83, 058101.	1.2	28
12	Symmetric informationally complete positive operator valued measure and probability representation of quantum mechanics. <i>Journal of Russian Laser Research</i> , 2010, 31, 211-231.	0.3	27
13	Tensor power of dynamical maps and positive versus completely positive divisibility. <i>Physical Review A</i> , 2017, 95, .	1.0	25
14	Quantum evolution in the stroboscopic limit of repeated measurements. <i>Physical Review A</i> , 2017, 95, .	1.0	24
15	Phase Covariant Qubit Dynamics and Divisibility. <i>Lobachevskii Journal of Mathematics</i> , 2020, 41, 617-630.	0.1	23
16	Spectral properties of reduced fermionic density operators and parity superselection rule. <i>Quantum Information Processing</i> , 2017, 16, 1.	1.0	22
17	Bipartite entanglement-annihilating maps: Necessary and sufficient conditions. <i>Physical Review A</i> , 2013, 88, .	1.0	20
18	Simulability of observables in general probabilistic theories. <i>Physical Review A</i> , 2018, 97, .	1.0	19

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19	Two-Qubit Entanglement Generation through Non-Hermitian Hamiltonians Induced by Repeated Measurements on an Ancilla. <i>Entropy</i> , 2020, 22, 1184.	1.1	19
20	Measuring microwave quantum states: Tomogram and moments. <i>Physical Review A</i> , 2011, 84, .	1.0	18
21	Spin tomography and star-product kernel for qubits and qutrits. <i>Journal of Russian Laser Research</i> , 2009, 30, 129-145.	0.3	17
22	Necessary condition for incompatibility of observables in general probabilistic theories. <i>Physical Review A</i> , 2017, 95, .	1.0	17
23	Time deformations of master equations. <i>Physical Review A</i> , 2018, 98, .	1.0	17
24	Variational Autoencoder Reconstruction of Complex Many-Body Physics. <i>Entropy</i> , 2019, 21, 1091.	1.1	17
25	Riemannian geometry and automatic differentiation for optimization problems of quantum physics and quantum technologies. <i>New Journal of Physics</i> , 2021, 23, 073006.	1.2	17
26	Ultimate entanglement robustness of two-qubit states against general local noises. <i>Physical Review A</i> , 2018, 97, .	1.0	14
27	Single-photon-added coherent states: estimation of parameters and fidelity of the optical homodyne detection. <i>Physica Scripta</i> , 2013, T153, 014025.	1.2	13
28	Quantumness tests and witnesses in the tomographic-probability representation. <i>Physica Scripta</i> , 2009, 79, 055007.	1.2	12
29	Positive tensor products of maps and n -tensor-stable positive qubit maps. <i>Journal of Physics A: Mathematical and Theoretical</i> , 2017, 50, 055301.	0.7	12
30	Operational Restrictions in General Probabilistic Theories. <i>Foundations of Physics</i> , 2020, 50, 850-876.	0.6	12
31	Geometrical interpretation of the density matrix: Mixed and entangled states. <i>Journal of Russian Laser Research</i> , 2008, 29, 564-580.	0.3	11
32	Absolutely separating quantum maps and channels. <i>New Journal of Physics</i> , 2017, 19, 083010.	1.2	11
33	QGOpt: Riemannian optimization for quantum technologies. <i>SciPost Physics</i> , 2021, 10, .	1.5	11
34	PPT-Inducing, Distillation-Prohibiting, and Entanglement-Binding Quantum Channels. <i>Journal of Russian Laser Research</i> , 2014, 35, 484-491.	0.3	10
35	Quantum master equations for a system interacting with a quantum gas in the low-density limit and for the semiclassical collision model. <i>Physical Review A</i> , 2020, 101, .	1.0	10
36	Qubit portrait of the photon-number tomogram and separability of two-mode light states. <i>Journal of Russian Laser Research</i> , 2009, 30, 55-72.	0.3	9

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37	Effect of image charge on double quantum dot evolution. <i>Physica E: Low-Dimensional Systems and Nanostructures</i> , 2011, 44, 501-505.	1.3	9
38	Quantum Mappings and Characterization of Entangled Quantum States. <i>Journal of Mathematical Sciences</i> , 2019, 241, 210-236.	0.1	9
39	Chebyshev polynomials and Fourier transform of SU(2) irreducible representation character as spin tomographic star-product kernel. <i>Journal of Russian Laser Research</i> , 2009, 30, 224-241.	0.3	8
40	Purity of spin states in terms of tomograms. <i>Journal of Russian Laser Research</i> , 2013, 34, 14-21.	0.3	8
41	Lower and Upper Bounds on Nonunitary Qubit Channel Capacities. <i>Reports on Mathematical Physics</i> , 2018, 82, 149-159.	0.4	8
42	Capacity of trace decreasing quantum operations and superadditivity of coherent information for a generalized erasure channel. <i>Journal of Physics A: Mathematical and Theoretical</i> , 2021, 54, 255301.	0.7	8
43	Quantum informational properties of the Landau-Streater channel. <i>Journal of Mathematical Physics</i> , 2019, 60, 042202.	0.5	7
44	Unitary and non-unitary matrices as a source of different bases of operators acting on hilbert spaces. <i>Journal of Russian Laser Research</i> , 2011, 32, 56.	0.3	6
45	Effect of an incoherent pump on two-mode entanglement in optical parametric generation. <i>Physical Review A</i> , 2019, 100, .	1.0	6
46	MuSR method and tomographic-probability representation of spin states. <i>Journal of Russian Laser Research</i> , 2010, 31, 421-442.	0.3	5
47	Relaxation equations for the qubit in the tomographic representation. <i>Journal of Russian Laser Research</i> , 2011, 32, 584-595.	0.3	5
48	Quantum simulation of an ultrathin body field-effect transistor with channel imperfections. <i>Solid-State Electronics</i> , 2012, 70, 106-113.	0.8	5
49	Spin Polarization-Scaling Quantum Maps and Channels. <i>Lobachevskii Journal of Mathematics</i> , 2018, 39, 65-70.	0.1	5
50	Multipartite Correlations in Quantum Collision Models. <i>Entropy</i> , 2022, 24, 508.	1.1	5
51	Entanglement Robustness in Trace Decreasing Quantum Dynamics. <i>Quanta</i> , 2021, 10, 15-21.	0.2	4
52	Probability representation and quantumness tests for qudits and two-mode light states. <i>Journal of Russian Laser Research</i> , 2009, 30, 443-450.	0.3	3
53	Quantum computing based on space states without charge transfer. <i>Physics Letters, Section A: General, Atomic and Solid State Physics</i> , 2010, 374, 3285-3291.	0.9	3
54	Distances between quantum states in the tomographic-probability representation. <i>Physica Scripta</i> , 2010, T140, 014043.	1.2	3

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55	Star product and ordered moments of photon creation and annihilation operators. Journal of Physics A: Mathematical and Theoretical, 2012, 45, 015305.	0.7	3
56	Influence of Deterministic Attenuation and Amplification of Optical Signals on Entanglement and Distillation of Gaussian and Non-Gaussian Quantum States. EPJ Web of Conferences, 2015, 103, 03003.	0.1	3
57	Quantum State Tomography Via Sequential Uses of the Same Informationally Incomplete Measuring Apparatus. Lobachevskii Journal of Mathematics, 2020, 41, 2405-2414.	0.1	3
58	Probability-based comparison of quantum states. Physical Review A, 2012, 85, .	1.0	2
59	Evolution of microwave quantum states in terms of measurable ordered moments of creation and annihilation operators. Optics and Spectroscopy (English Translation of Optika i Spektroskopiya), 2012, 112, 365-372.	0.2	2
60	Realization of the Wernerâ€“Holevo and Landauâ€“Streater Quantum Channels for Qutrits on Quantum Computers. Journal of Russian Laser Research, 2020, 41, 40-53.	0.3	2
61	Tensor Products of Quantum Mappings. Journal of Mathematical Sciences, 2021, 252, 116-124.	0.1	2
62	Collisional open quantum dynamics with a generally correlated environment: Exact solvability in tensor networks. Physical Review A, 2022, 105, .	1.0	2
63	Relaxation equation for muon spin tomogram in probability representation. Optics and Spectroscopy (English Translation of Optika i Spektroskopiya), 2012, 112, 359-364.	0.2	1
64	On Quantum Operations of Photon Subtraction and Photon Addition. Lobachevskii Journal of Mathematics, 2019, 40, 1470-1478.	0.1	1
65	Multipartite entanglement to boost superadditivity of coherent information in quantum communication lines with polarization-dependent losses. Physical Review A, 2022, 105, .	1.0	1
66	Single-electron solitons in magnetic field. Proceedings of SPIE, 2016, , .	0.8	0
67	Quantum dynamics intervened by repeated nonselective measurements. International Journal of Quantum Information, 2017, 15, 1740027.	0.6	0