Sergey Filippov

List of Publications by Year
in descending order

67 papers	1,034 citations	430874 18 h-index	477307 29 g-index
67 all docs	67 docs citations	67 times ranked	609 citing authors

#	Article	IF	Citations
1	Simulation of indivisible qubit channels in collision models. Journal of Physics B: Atomic, Molecular and Optical Physics, 2012, 45, 154006.	1.5	80
2	Divisibility of quantum dynamical maps and collision models. Physical Review A, 2017, 96, .	2.5	70
3	Machine Learning Non-Markovian Quantum Dynamics. Physical Review Letters, 2020, 124, 140502.	7.8	63
4	Simulation Complexity of Open Quantum Dynamics: Connection with Tensor Networks. Physical Review Letters, 2019, 122, 160401.	7.8	60
5	Towards higher precision and operational use of optical homodyne tomograms. Physical Review A, 2012, 85, .	2.5	48
6	Local two-qubit entanglement-annihilating channels. Physical Review A, 2012, 85, .	2.5	33
7	Inverse spin-s portrait and representation of qudit states by single probability vectors. Journal of Russian Laser Research, 2010, 31, 32-54.	0.6	29
8	Mutually unbiased bases: tomography of spin states and the star-product scheme. Physica Scripta, 2011, T143, 014010.	2.5	29
9	Dissociation and annihilation of multipartite entanglement structure in dissipative quantum dynamics. Physical Review A, 2013, 88, .	2.5	29
10	Entanglement sensitivity to signal attenuation and amplification. Physical Review A, 2014, 90, .	2.5	29
11	Optical tomography of Fock state superpositions. Physica Scripta, 2011, 83, 058101.	2.5	28
12	Symmetric informationally complete positive operator valued measure and probability representation of quantum mechanics. Journal of Russian Laser Research, 2010, 31, 211-231.	0.6	27
13	Tensor power of dynamical maps and positive versus completely positive divisibility. Physical Review A, 2017, 95, .	2.5	25
14	Quantum evolution in the stroboscopic limit of repeated measurements. Physical Review A, 2017, 95, .	2.5	24
15	Phase Covariant Qubit Dynamics and Divisibility. Lobachevskii Journal of Mathematics, 2020, 41, 617-630.	0.9	23
16	Spectral properties of reduced fermionic density operators and parity superselection rule. Quantum Information Processing, 2017, 16, 1.	2.2	22
17	Bipartite entanglement-annihilating maps: Necessary and sufficient conditions. Physical Review A, 2013, 88, .	2.5	20
18	Simulability of observables in general probabilistic theories. Physical Review A, 2018, 97, .	2.5	19

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19	Two-Qubit Entanglement Generation through Non-Hermitian Hamiltonians Induced by Repeated Measurements on an Ancilla. Entropy, 2020, 22, 1184.	2.2	19
20	Measuring microwave quantum states: Tomogram and moments. Physical Review A, 2011, 84, .	2.5	18
21	Spin tomography and star-product kernel for qubits and qutrits. Journal of Russian Laser Research, 2009, 30, 129-145.	0.6	17
22	Necessary condition for incompatibility of observables in general probabilistic theories. Physical Review A, 2017, 95, .	2.5	17
23	Time deformations of master equations. Physical Review A, 2018, 98, .	2.5	17
24	Variational Autoencoder Reconstruction of Complex Many-Body Physics. Entropy, 2019, 21, 1091.	2.2	17
25	Riemannian geometry and automatic differentiation for optimization problems of quantum physics and quantum technologies. New Journal of Physics, 2021, 23, 073006.	2.9	17
26	Ultimate entanglement robustness of two-qubit states against general local noises. Physical Review A, 2018, 97, .	2.5	14
27	Single-photon-added coherent states: estimation of parameters and fidelity of the optical homodyne detection. Physica Scripta, 2013, T153, 014025.	2.5	13
28	Quantumness tests and witnesses in the tomographic-probability representation. Physica Scripta, 2009, 79, 055007.	2.5	12
29	Positive tensor products of maps andn-tensor-stable positive qubit maps. Journal of Physics A: Mathematical and Theoretical, 2017, 50, 055301.	2.1	12
30	Operational Restrictions in General Probabilistic Theories. Foundations of Physics, 2020, 50, 850-876.	1.3	12
31	Geometrical interpretation of the density matrix: Mixed and entangled states. Journal of Russian Laser Research, 2008, 29, 564-580.	0.6	11
32	Absolutely separating quantum maps and channels. New Journal of Physics, 2017, 19, 083010.	2.9	11
33	QGOpt: Riemannian optimization for quantum technologies. SciPost Physics, 2021, 10, .	4.9	11
34	PPT-Inducing, Distillation-Prohibiting, and Entanglement-Binding Quantum Channels. Journal of Russian Laser Research, 2014, 35, 484-491.	0.6	10
35	Quantum master equations for a system interacting with a quantum gas in the low-density limit and for the semiclassical collision model. Physical Review A, 2020, 101, .	2.5	10
36	Qubit portrait of the photon-number tomogram and separability of two-mode light states. Journal of Russian Laser Research, 2009, 30, 55-72.	0.6	9

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37	Effect of image charge on double quantum dot evolution. Physica E: Low-Dimensional Systems and Nanostructures, 2011, 44, 501-505.	2.7	9
38	Quantum Mappings and Characterization of Entangled Quantum States. Journal of Mathematical Sciences, 2019, 241, 210-236.	0.4	9
39	Chebyshev polynomials and Fourier transform of SU(2) irreducible representation character as spin tomographic star-product kernel. Journal of Russian Laser Research, 2009, 30, 224-241.	0.6	8
40	Purity of spin states in terms of tomograms. Journal of Russian Laser Research, 2013, 34, 14-21.	0.6	8
41	Lower and Upper Bounds on Nonunital Qubit Channel Capacities. Reports on Mathematical Physics, 2018, 82, 149-159.	0.8	8
42	Capacity of trace decreasing quantum operations and superadditivity of coherent information for a generalized erasure channel. Journal of Physics A: Mathematical and Theoretical, 2021, 54, 255301.	2.1	8
43	Quantum informational properties of the Landauâ€“Streater channel. Journal of Mathematical Physics, 2019, 60, 042202.	1.1	7
44	Unitary and non-unitary matrices as a source of different bases of operators acting on hilbert spaces. Journal of Russian Laser Research, 2011, 32, 56.	0.6	6
45	Effect of an incoherent pump on two-mode entanglement in optical parametric generation. Physical Review A, 2019, 100, .	2.5	6
46	MuSR method and tomographic-probability representation of spin states. Journal of Russian Laser Research, 2010, 31, 421-442.	0.6	5
47	Relaxation equations for the qubit in the tomographic representation. Journal of Russian Laser Research, 2011, 32, 584-595.	0.6	5
48	Quantum simulation of an ultrathin body field-effect transistor with channel imperfections. Solid-State Electronics, 2012, 70, 106-113.	1.4	5
49	Spin Polarization-Scaling Quantum Maps and Channels. Lobachevskii Journal of Mathematics, 2018, 39, 65-70.	0.9	5
50	Multipartite Correlations in Quantum Collision Models. Entropy, 2022, 24, 508.	2.2	5
51	Entanglement Robustness in Trace Decreasing Quantum Dynamics. Quanta, 2021, 10, 15-21.	0.9	4
52	Probability representation and quantumness tests for qudits and two-mode light states. Journal of Russian Laser Research, 2009, 30, 443-450.	0.6	3
53	Quantum computing based on space states without charge transfer. Physics Letters, Section A: General, Atomic and Solid State Physics, 2010, 374, 3285-3291.	2.1	3
54	Distances between quantum states in the tomographic-probability representation. Physica Scripta, 2010, T140, 014043.	2.5	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.	2.1	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.	0.3	3
57	Quantum State Tomography Via Sequential Uses of the Same Informationally Incomplete Measuring Apparatus. Lobachevskii Journal of Mathematics, 2020, 41, 2405-2414.	0.9	3
58	Probability-based comparison of quantum states. Physical Review A, 2012, 85, .	2.5	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.	0.6	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.	0.6	2
61	Tensor Products of Quantum Mappings. Journal of Mathematical Sciences, 2021, 252, 116-124.	0.4	2
62	Collisional open quantum dynamics with a generally correlated environment: Exact solvability in tensor networks. Physical Review A, 2022, 105, .	2.5	2
63	Relaxation equation for muon spin tomogram in probability representation. Optics and Spectroscopy (English Translation of Optika I Spektroskopiya), 2012, 112, 359-364.	0.6	1
64	On Quantum Operations of Photon Subtraction and Photon Addition. Lobachevskii Journal of Mathematics, 2019, 40, 1470-1478.	0.9	1
65	Multipartite entanglement to boost superadditivity of coherent information in quantum communication lines with polarization-dependent losses. Physical Review A, 2022, 105, .	2.5	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.	1.1	0