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	Multipartite Correlations in Quantum Collision Models. Entropy, 2022, 24, 508.	2.2	5
2	Multipartite entanglement to boost superadditivity of coherent information in quantum communication lines with polarization-dependent losses. Physical Review A, 2022, 105, .	2.5	1
3	Collisional open quantum dynamics with a generally correlated environment: Exact solvability in tensor networks. Physical Review A, 2022, 105, .	2.5	2
4	Tensor Products of Quantum Mappings. Journal of Mathematical Sciences, 2021, 252, 116-124.	0.4	2
5	QGOpt: Riemannian optimization for quantum technologies. SciPost Physics, 2021, 10, .	4.9	11
6	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
7	Riemannian geometry and automatic differentiation for optimization problems of quantum physics and quantum technologies. New Journal of Physics, 2021, 23, 073006.	2.9	17
8	Entanglement Robustness in Trace Decreasing Quantum Dynamics. Quanta, 2021, 10, 15-21.	0.9	4
9	Operational Restrictions in General Probabilistic Theories. Foundations of Physics, 2020, 50, 850-876.	1.3	12
10	Phase Covariant Qubit Dynamics and Divisibility. Lobachevskii Journal of Mathematics, 2020, 41, 617-630.	0.9	23
11	Two-Qubit Entanglement Generation through Non-Hermitian Hamiltonians Induced by Repeated Measurements on an Ancilla. Entropy, 2020, 22, 1184.	2.2	19
12	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
13	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
14	Machine Learning Non-Markovian Quantum Dynamics. Physical Review Letters, 2020, 124, 140502.	7.8	63
15	Quantum State Tomography Via Sequential Uses of the Same Informationally Incomplete Measuring Apparatus. Lobachevskii Journal of Mathematics, 2020, 41, 2405-2414.	0.9	3
16	Quantum Mappings and Characterization of Entangled Quantum States. Journal of Mathematical Sciences, 2019, 241, 210-236.	0.4	9
17	On Quantum Operations of Photon Subtraction and Photon Addition. Lobachevskii Journal of Mathematics, 2019, 40, 1470-1478.	0.9	1
18	Effect of an incoherent pump on two-mode entanglement in optical parametric generation. Physical Review A, 2019, 100, .	2.5	6

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19	Quantum informational properties of the Landauâ€“Streater channel. Journal of Mathematical Physics, 2019, 60, 042202.	1.1	7
20	Simulation Complexity of Open Quantum Dynamics: Connection with Tensor Networks. Physical Review Letters, 2019, 122, 160401.	7.8	60
21	Variational Autoencoder Reconstruction of Complex Many-Body Physics. Entropy, 2019, 21, 1091.	2.2	17
22	Spin Polarization-Scaling Quantum Maps and Channels. Lobachevskii Journal of Mathematics, 2018, 39, 65-70.	0.9	5
23	Ultimate entanglement robustness of two-qubit states against general local noises. Physical Review A, 2018, 97, .	2.5	14
24	Lower and Upper Bounds on Nonunital Qubit Channel Capacities. Reports on Mathematical Physics, 2018, 82, 149-159.	0.8	8
25	Time deformations of master equations. Physical Review A, 2018, 98, .	2.5	17
26	Simulability of observables in general probabilistic theories. Physical Review A, 2018, 97, .	2.5	19
27	Tensor power of dynamical maps and positive versus completely positive divisibility. Physical Review A, 2017, 95, .	2.5	25
28	Quantum evolution in the stroboscopic limit of repeated measurements. Physical Review A, 2017, 95, .	2.5	24
29	Necessary condition for incompatibility of observables in general probabilistic theories. Physical Review A, 2017, 95, .	2.5	17
30	Spectral properties of reduced fermionic density operators and parity superselection rule. Quantum Information Processing, 2017, 16, 1.	2.2	22
31	Positive tensor products of maps andn-tensor-stable positive qubit maps. Journal of Physics A: Mathematical and Theoretical, 2017, 50, 055301.	2.1	12
32	Divisibility of quantum dynamical maps and collision models. Physical Review A, 2017, 96, .	2.5	70
33	Quantum dynamics intervened by repeated nonselective measurements. International Journal of Quantum Information, 2017, 15, 1740027.	1.1	0
34	Absolutely separating quantum maps and channels. New Journal of Physics, 2017, 19, 083010.	2.9	11
35	Single-electron solitons in magnetic field. Proceedings of SPIE, 2016, , .	0.8	0
36	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

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37	PPT-Inducing, Distillation-Prohibiting, and Entanglement-Binding Quantum Channels. Journal of Russian Laser Research, 2014, 35, 484-491.	0.6	10
38	Entanglement sensitivity to signal attenuation and amplification. Physical Review A, 2014, 90, .	2.5	29
39	Single-photon-added coherent states: estimation of parameters and fidelity of the optical homodyne detection. Physica Scripta, 2013, T153, 014025.	2.5	13
40	Purity of spin states in terms of tomograms. Journal of Russian Laser Research, 2013, 34, 14-21.	0.6	8
41	Dissociation and annihilation of multipartite entanglement structure in dissipative quantum dynamics. Physical Review A, 2013, 88, .	2.5	29
42	Bipartite entanglement-annihilating maps: Necessary and sufficient conditions. Physical Review A, 2013, 88, .	2.5	20
43	Simulation of indivisible qubit channels in collision models. Journal of Physics B: Atomic, Molecular and Optical Physics, 2012, 45, 154006.	1.5	80
44	Local two-qubit entanglement-annihilating channels. Physical Review A, 2012, 85, .	2.5	33
45	Star product and ordered moments of photon creation and annihilation operators. Journal of Physics A: Mathematical and Theoretical, 2012, 45, 015305.	2.1	3
46	Probability-based comparison of quantum states. Physical Review A, 2012, 85, .	2.5	2
47	Towards higher precision and operational use of optical homodyne tomograms. Physical Review A, 2012, 85, .	2.5	48
48	Quantum simulation of an ultrathin body field-effect transistor with channel imperfections. Solid-State Electronics, 2012, 70, 106-113.	1.4	5
49	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
50	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
51	Mutually unbiased bases: tomography of spin states and the star-product scheme. Physica Scripta, 2011, T143, 014010.	2.5	29
52	Optical tomography of Fock state superpositions. Physica Scripta, 2011, 83, 058101.	2.5	28
53	Effect of image charge on double quantum dot evolution. Physica E: Low-Dimensional Systems and Nanostructures, 2011, 44, 501-505.	2.7	9
54	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

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55	Relaxation equations for the qubit in the tomographic representation. Journal of Russian Laser Research, 2011, 32, 584-595.	0.6	5
56	Measuring microwave quantum states: Tomogram and moments. Physical Review A, 2011, 84, .	2.5	18
57	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
58	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
59	MuSR method and tomographic-probability representation of spin states. Journal of Russian Laser Research, 2010, 31, 421-442.	0.6	5
60	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
61	Distances between quantum states in the tomographic-probability representation. Physica Scripta, 2010, T140, 014043.	2.5	3
62	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
63	Spin tomography and star-product kernel for qubits and qutrits. Journal of Russian Laser Research, 2009, 30, 129-145.	0.6	17
64	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
65	Probability representation and quantumness tests for qudits and two-mode light states. Journal of Russian Laser Research, 2009, 30, 443-450.	0.6	3
66	Quantumness tests and witnesses in the tomographic-probability representation. Physica Scripta, 2009, 79, 055007.	2.5	12
67	Geometrical interpretation of the density matrix: Mixed and entangled states. Journal of Russian Laser Research, 2008, 29, 564-580.	0.6	11