

Markus Grassl

List of Publications by Year in descending order

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113
papers

2,848
citations

257357

24
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48
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117
all docs

117
docs citations

117
times ranked

1795
citing authors

#	ARTICLE	IF	CITATIONS
1	Entropic Proofs of Singleton Bounds for Quantum Error-Correcting Codes. IEEE Transactions on Information Theory, 2022, 68, 3942-3950.	1.5	23
2	Quantumness beyond entanglement: The case of symmetric states. Physical Review A, 2022, 105, .	1.0	3
3	Testing a quantum error-correcting code on various platforms. Science Bulletin, 2021, 66, 29-35.	4.3	6
4	Entanglement-assisted quantum communication beating the quantum Singleton bound. Physical Review A, 2021, 103, .	1.0	20
5	Quantum concepts in optical polarization. Advances in Optics and Photonics, 2021, 13, 1.	12.1	39
6	Comment on "An encryption protocol for NEQR images based on one-particle quantum walks on a circle". Quantum Information Processing, 2021, 20, 1.	1.0	0
7	Extremal quantum states. AVS Quantum Science, 2020, 2, .	1.8	24
8	Algebraic quantum codes: linking quantum mechanics and discrete mathematics. International Journal of Computer Mathematics: Computer Systems Theory, 2020, , 1-17.	0.7	4
9	Isoentangled Mutually Unbiased Bases, Symmetric Quantum Measurements, and Mixed-State Designs. Physical Review Letters, 2020, 124, 090503.	2.9	13
10	Residual and Destroyed Accessible Information after Measurements. Physical Review Letters, 2018, 120, 160501.	2.9	10
11	Quantum Error-Correcting Codes for Qudit Amplitude Damping. IEEE Transactions on Information Theory, 2018, 64, 4674-4685.	1.5	29
12	Tomography from collective measurements. Quantum Information Processing, 2018, 17, 1.	1.0	3
13	Coarse graining the phase space of N qubits. Physical Review A, 2017, 95, .	1.0	6
14	Small sets of complementary observables. Physical Review A, 2017, 95, .	1.0	8
15	Codes for simultaneous transmission of quantum and classical information. , 2017, , .		14
16	Experimental detection of entanglement polytopes via local filters. Npj Quantum Information, 2017, 3, .	2.8	5
17	New self-dual additive F_4 constructed from circulant graphs. Discrete Mathematics, 2017, 340, 399-403.	0.4	7
18	Invariant perfect tensors. New Journal of Physics, 2017, 19, 063029.	1.2	9

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19	Fibonacci-Lucas SIC-POVMs. <i>Journal of Mathematical Physics</i> , 2017, 58, .	0.5	34
20	Quantum metrology at the limit with extremal Majorana constellations. <i>Optica</i> , 2017, 4, 1429.	4.8	34
21	Some results on the structure of constacyclic codes and new linear codes over \mathbb{F}_q from quasi-twisted codes. <i>Advances in Mathematics of Communications</i> , 2017, 11, 245-258.	0.4	16
22	Codeword stabilized quantum codes for asymmetric channels. , 2016, , .		7
23	Quantum technology: from research to application. <i>Applied Physics B: Lasers and Optics</i> , 2016, 122, 1.	1.1	42
24	Concatenated codes for amplitude damping. , 2016, , .		5
25	Applying Grover's Algorithm to AES: Quantum Resource Estimates. <i>Lecture Notes in Computer Science</i> , 2016, , 29-43.	1.0	110
26	Extremal quantum states and their Majorana constellations. <i>Physical Review A</i> , 2015, 92, .	1.0	38
27	Quantum MDS codes over small fields. , 2015, , .		39
28	Stars of the quantum Universe: extremal constellations on the Poincaré sphere. <i>Physica Scripta</i> , 2015, 90, 108008.	1.2	26
29	New Constructions of Codes for Asymmetric Channels via Concatenation. <i>IEEE Transactions on Information Theory</i> , 2015, 61, 1879-1886.	1.5	6
30	Quantum error-correcting codes for amplitude damping. , 2014, , .		5
31	Canonical form of three-fermion pure-states with six single particle states. <i>Journal of Mathematical Physics</i> , 2014, 55, .	0.5	9
32	New binary codes from extended Goppa codes. <i>Designs, Codes, and Cryptography</i> , 2014, 70, 149-156.	1.0	3
33	A Generalized Construction of Extended Goppa Codes. <i>IEEE Transactions on Information Theory</i> , 2014, 60, 5296-5303.	1.5	3
34	Systems of Imprimitivity for the Clifford group. <i>Quantum Information and Computation</i> , 2014, 14, 339-360.	0.1	11
35	A Generalized Construction and Improvements on Nonbinary Codes From Goppa Codes. <i>IEEE Transactions on Information Theory</i> , 2013, 59, 7299-7304.	1.5	4
36	Leveraging automorphisms of quantum codes for fault-tolerant quantum computation. , 2013, , .		3

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37	Stabilizer formalism for generalized concatenated quantum codes. , 2013, , .		3
38	Four-qubit pure states as fermionic states. Physical Review A, 2013, 88, .	1.0	16
39	Asymmetric quantum codes detecting a single amplitude error. , 2013, , .		4
40	Experimental implementation of a codeword-stabilized quantum code. Physical Review A, 2012, 85, .	1.0	4
41	Computing extensions of linear codes using a greedy algorithm. , 2012, , .		1
42	New constructions of codes for asymmetric channels via concatenation. , 2012, , .		4
43	Quantum Error Correction and Fault Tolerant Quantum Computing. , 2012, , 2478-2496.		2
44	The monomial representations of the Clifford group. Quantum Information and Computation, 2012, 12, 404-431.	0.1	17
45	Graph concatenation for quantum codes. Journal of Mathematical Physics, 2011, 52, 022201.	0.5	14
46	There Is No Binary [35, 10, 13] Code. IEEE Transactions on Information Theory, 2011, 57, 6094-6096.	1.5	0
47	The Weights in MDS Codes. IEEE Transactions on Information Theory, 2011, 57, 392-396.	1.5	29
48	Cryptanalysis of the Tillich's Mor Hash Function. Journal of Cryptology, 2011, 24, 148-156.	2.1	24
49	Variations on Encoding Circuits for Stabilizer Quantum Codes. Lecture Notes in Computer Science, 2011, , 142-158.	1.0	3
50	On the connection between mutually unbiased bases and orthogonal Latin squares. Physica Scripta, 2010, T140, 014031.	1.2	14
51	Quantum-capacity-approaching codes for the detected-jump channel. Physical Review A, 2010, 82, .	1.0	3
52	Clustered bounded-distance decoding of codeword-stabilized quantum codes. , 2010, , .		1
53	Multi-error-correcting amplitude damping codes. , 2010, , .		9
54	Structured error recovery for code-word-stabilized quantum codes. Physical Review A, 2010, 81, .	1.0	5

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55	Fully Ramified Characters and Clifford Codes. Communications in Algebra, 2010, 39, 100-115.	0.3	0
56	Symmetric informationally complete positive-operator-valued measures: A new computer study. Journal of Mathematical Physics, 2010, 51, .	0.5	190
57	On encoders for quantum convolutional codes. , 2010, , .		1
58	Generalized concatenated quantum codes. Physical Review A, 2009, 79, .	1.0	27
59	On circulant self-dual codes over small fields. Designs, Codes, and Cryptography, 2009, 52, 57-81.	1.0	26
60	Cryptanalysis of an authentication scheme using truncated polynomials. Information Processing Letters, 2009, 109, 861-863.	0.4	0
61	Generalized concatenation for quantum codes. , 2009, , .		5
62	Chains of cyclic codes, Construction X and incremental redundancy. , 2008, , .		0
63	Non-additive quantum codes from Goethals and Preparata codes. , 2008, , .		5
64	Quantum Goethals-Preparata codes. , 2008, , .		12
65	Computing Equiangular Lines in Complex Space. Lecture Notes in Computer Science, 2008, , 89-104.	1.0	14
66	On self-dual MDS codes. , 2008, , .		40
67	Constructions of Quantum Convolutional Codes. , 2007, , .		16
68	Computing Extensions of Linear Codes. , 2007, , .		3
69	Quantum Convolutional BCH Codes. , 2007, , .		21
70	Convolutional and Tail-Biting Quantum Error-Correcting Codes. IEEE Transactions on Information Theory, 2007, 53, 865-880.	1.5	74
71	Searching for linear codes with large minimum distance. , 2006, , 287-313.		31
72	Convolutional and Block Quantum Error-Correcting Codes. , 2006, , .		4

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73	A New Minimum Weight Algorithm for Additive Codes. , 2006, , .		6
74	Implementation of generalized measurements with minimal disturbance on a quantum computer. Fortschritte Der Physik, 2006, 54, 898-916.	1.5	0
75	New linear codes derived from binary cyclic codes of length 151. IET Communications, 2006, 153, 581.	1.0	2
76	Fehlerkorrektur für Quantensysteme (Quantum Error-Correcting Codes). IT - Information Technology, 2006, 48, 354-358.	0.6	0
77	Generalized decoding, effective channels, and simplified security proofs in quantum key distribution. Physical Review A, 2006, 74, .	1.0	33
78	Non-catastrophic Encoders and Encoder Inverses for Quantum Convolutional Codes. , 2006, , .		32
79	Tomography of Quantum States in Small Dimensions. Electronic Notes in Discrete Mathematics, 2005, 20, 151-164.	0.4	53
80	Quantum information processing and communication. European Physical Journal D, 2005, 36, 203-228.	0.6	272
81	Algorithms for Quantum Systems - Quantum Algorithms. , 2005, , 1-13.		1
82	New codes from chains of quasi-cyclic codes. , 2005, , .		8
83	Quantum block and convolutional codes from self-orthogonal product codes. , 2005, , .		18
84	ON OPTIMAL QUANTUM CODES. International Journal of Quantum Information, 2004, 02, 55-64.	0.6	204
85	New bounds for $n_4(k,d)$ and classification of some optimal codes over $GF(4)$. Discrete Mathematics, 2004, 281, 43-66.	0.4	10
86	Gate simulation and lower bounds on the simulation time. Physical Review A, 2004, 70, .	1.0	21
87	A New Class of Designs Which Protect against Quantum Jumps. Designs, Codes, and Cryptography, 2003, 29, 51-70.	1.0	21
88	Detected-jump-error-correcting quantum codes, quantum error designs, and quantum computation. Physical Review A, 2003, 68, .	1.0	14
89	EFFICIENT QUANTUM CIRCUITS FOR NON-QUBIT QUANTUM ERROR-CORRECTING CODES. International Journal of Foundations of Computer Science, 2003, 14, 757-775.	0.8	71
90	Algorithmic aspects of quantum error-correcting codes. Computational Mathematics Series, 2002, , .	0.0	6

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91	New binary codes from a chain of cyclic codes. IEEE Transactions on Information Theory, 2001, 47, 1178-1181.	1.5	5
92	Stabilizing Distinguishable Qubits against Spontaneous Decay by Detected-Jump Correcting Quantum Codes. Physical Review Letters, 2001, 86, 4402-4405.	2.9	43
93	Quantum Computing - Applicable Algebra goes to Physics. Applicable Algebra in Engineering, Communications and Computing, 2000, 10, 269-272.	0.3	0
94	Analysis of generalized Grover quantum search algorithms using recursion equations. Physical Review A, 2000, 63, .	1.0	54
95	Cyclic quantum error-correcting codes and quantum shift registers. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2000, 456, 2689-2706.	1.0	38
96	Weaknesses in the $SL_2(\mathbb{F}_{2^n})$ Hashing Scheme. Lecture Notes in Computer Science, 2000, , 287-299.	1.0	11
97	Simulating quantum operations with mixed environments. Physical Review A, 1999, 60, 881-885.	1.0	28
98	Grover's quantum search algorithm for an arbitrary initial amplitude distribution. Physical Review A, 1999, 60, 2742-2745.	1.0	93
99	Quantum Reed-Solomon Codes. Lecture Notes in Computer Science, 1999, , 231-244.	1.0	45
100	The Quantum Hamming and Hexacodes. Fortschritte Der Physik, 1998, 46, 459-491.	1.5	14
101	Computing local invariants of quantum-bit systems. Physical Review A, 1998, 58, 1833-1839.	1.0	134
102	Codes for the quantum erasure channel. Physical Review A, 1997, 56, 33-38.	1.0	226
103	Stabilization of quantum states in quantum-optical systems. Physical Review A, 1996, 54, 2698-2702.	1.0	11
104	Decoding algorithm for linear binary codes based on the interpolation curve. , 0, , .		0
105	Methods of quantum error correction. , 0, , .		0
106	Graphs, quadratic forms, and quantum codes. , 0, , .		37
107	New good linear codes by special puncturings. , 0, , .		4
108	On quantum MDS codes. , 0, , .		16

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109	Quantum Error Correction. , 0, , 105-120.		0
110	Classical Information Theory and Classical Error Correction. , 0, , 3-16.		0
111	Nonadditive quantum codes. , 0, , 261-278.		1
112	Implementation of Generalized Measurements with Minimal Disturbance on a Quantum Computer. , 0, , 399-424.		2
113	Quantum Codes of Maximal Distance and Highly Entangled Subspaces. Quantum - the Open Journal for Quantum Science, 0, 4, 284.	0.0	32