

# Paul J Goulart

## List of Publications by Year in descending order

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64  
papers

2,455  
citations

430874

18  
h-index

254184

43  
g-index

64  
all docs

64  
docs citations

64  
times ranked

1798  
citing authors

#	ARTICLE	IF	CITATIONS
1	OSQP: an operator splitting solver for quadratic programs. <i>Mathematical Programming Computation</i> , 2020, 12, 637-672.	4.8	456
2	Optimization over state feedback policies for robust control with constraints. <i>Automatica</i> , 2006, 42, 523-533.	5.0	445
3	Embedded Online Optimization for Model Predictive Control at Megahertz Rates. <i>IEEE Transactions on Automatic Control</i> , 2014, 59, 3238-3251.	5.7	182
4	On the Road Between Robust Optimization and the Scenario Approach for Chance Constrained Optimization Problems. <i>IEEE Transactions on Automatic Control</i> , 2014, 59, 2258-2263.	5.7	173
5	Policy-Based Reserves for Power Systems. <i>IEEE Transactions on Power Systems</i> , 2013, 28, 4427-4437.	6.5	114
6	Robust Gust Alleviation and Stabilization of Very Flexible Aircraft. <i>AIAA Journal</i> , 2013, 51, 330-340.	2.6	92
7	Robust optimal control with adjustable uncertainty sets. <i>Automatica</i> , 2017, 75, 249-259.	5.0	86
8	On the sample size of random convex programs with structured dependence on the uncertainty. <i>Automatica</i> , 2015, 60, 182-188.	5.0	71
9	A decomposition method for large scale MILPs, with performance guarantees and a power system application. <i>Automatica</i> , 2016, 67, 144-156.	5.0	61
10	OSQP: An Operator Splitting Solver for Quadratic Programs. , 2018, , .		61
11	Trajectory Generation for Aircraft Avoidance Maneuvers Using Online Optimization. <i>Journal of Guidance, Control, and Dynamics</i> , 2011, 34, 218-230.	2.8	60
12	Generalized Gauss inequalities via semidefinite programming. <i>Mathematical Programming</i> , 2016, 156, 271-302.	2.4	47
13	Global stability analysis of fluid flows using sum-of-squares. <i>Physica D: Nonlinear Phenomena</i> , 2012, 241, 692-704.	2.8	42
14	Chordal decomposition in operator-splitting methods for sparse semidefinite programs. <i>Mathematical Programming</i> , 2020, 180, 489-532.	2.4	41
15	Infeasibility Detection in the Alternating Direction Method of Multipliers for Convex Optimization. <i>Journal of Optimization Theory and Applications</i> , 2019, 183, 490-519.	1.5	40
16	Embedded code generation using the OSQP solver. , 2017, , .		34
17	Second-Order Switching Time Optimization for Switched Dynamical Systems. <i>IEEE Transactions on Automatic Control</i> , 2017, 62, 5407-5414.	5.7	32
18	On the sample size of randomized MPC for chance-constrained systems with application to building climate control. , 2014, , .		29

#	ARTICLE	IF	CITATIONS
19	Multivariate Chebyshev Inequality With Estimated Mean and Variance. American Statistician, 2017, 71, 123-127.	1.6	29
20	Stochastic Model Predictive Control using a combination of randomized and robust optimization. , 2013, , .		28
21	Robust integer optimization and scheduling problems for large electricity consumers. , 2012, , .		26
22	Fast ADMM for semidefinite programs with chordal sparsity. , 2017, , .		25
23	Inverse Parametric Optimization With an Application to Hybrid System Control. IEEE Transactions on Automatic Control, 2015, 60, 1064-1069.	5.7	24
24	A Scenario Approach for Non-Convex Control Design. IEEE Transactions on Automatic Control, 2015, , 1-1.	5.7	21
25	COSMO: A Conic Operator Splitting Method for Convex Conic Problems. Journal of Optimization Theory and Applications, 2021, 190, 779-810.	1.5	20
26	COSMO: A conic operator splitting method for large convex problems. , 2019, , .		15
27	Decentralized Resource Allocation via Dual Consensus ADMM. , 2019, , .		14
28	Robust Optimization of Schedules Affected by Uncertain Events. Journal of Optimization Theory and Applications, 2016, 171, 1033-1054.	1.5	13
29	Infinite Horizon Performance Bounds for Uncertain Constrained Systems. IEEE Transactions on Automatic Control, 2013, 58, 2803-2817.	5.7	12
30	Stochastic Model Predictive Control with Discounted Probabilistic Constraints. , 2018, , .		12
31	Sum-of-squares of polynomials approach to nonlinear stability of fluid flows: an example of application. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2015, 471, 20150622.	2.1	11
32	Distributionally robust expectation inequalities for structured distributions. Mathematical Programming, 2019, 173, 251-280.	2.4	11
33	Tight Global Linear Convergence Rate Bounds for Operator Splitting Methods. IEEE Transactions on Automatic Control, 2018, 63, 4126-4139.	5.7	10
34	Large scale mixed-integer optimization: A solution method with supply chain applications. , 2014, , .		9
35	Fast ADMM for homogeneous self-dual embedding of sparse SDPs * *Y. Zheng and G. Fantuzzi contributed equally to this work. Y. Zheng is supported by the Clarendon Scholarship and the Jason Hu Scholarship.. IFAC-PapersOnLine, 2017, 50, 8411-8416.	0.9	9
36	On the Convergence of a Regularized Jacobi Algorithm for Convex Optimization. IEEE Transactions on Automatic Control, 2018, 63, 1113-1119.	5.7	9

#	ARTICLE	IF	CITATIONS
37	A dynamic programming framework for optimal delivery time slot pricing. European Journal of Operational Research, 2021, 292, 456-468.	5.7	9
38	Inverse Parametric Quadratic Programming and an Application to Hybrid Control. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2012, 45, 68-73.	0.4	8
39	A clique graph based merging strategy for decomposable SDPs. IFAC-PapersOnLine, 2020, 53, 7355-7361.	0.9	7
40	A novel method for modelling cardinality and rank constraints. , 2014, , .		6
41	Optimization With Affine Homogeneous Quadratic Integral Inequality Constraints. IEEE Transactions on Automatic Control, 2017, 62, 6221-6236.	5.7	6
42	Infeasibility Detection in the Alternating Direction Method of Multipliers for Convex Optimization. , 2018, , .		6
43	Strong Stationarity Conditions for Optimal Control of Hybrid Systems. IEEE Transactions on Automatic Control, 2017, 62, 4512-4526.	5.7	5
44	Convexity and Feedback in Approximate Dynamic Programming for Delivery Time Slot Pricing. IEEE Transactions on Control Systems Technology, 2022, 30, 893-900.	5.2	4
45	Stochastic MPC With Dynamic Feedback Gain Selection and Discounted Probabilistic Constraints. IEEE Transactions on Automatic Control, 2022, 67, 5885-5899.	5.7	4
46	Flow-maximizing equilibria of the Cell Transmission Model. , 2015, , .		3
47	A Novel Approach for Solving Convex Problems with Cardinality Constraints * *Research supported by the European Commission research project FP7-PEOPLE-2013-ITN under grant agreement no. 607957 [Training in Embedded Optimization and Predictive Control (TEMPO)]. IFAC-PapersOnLine, 2017, 50, 13182-13187.	0.9	3
48	Convex, monotone systems are optimally operated at steady-state. , 2017, , .		3
49	A Concave Value Function Extension for the Dynamic Programming Approach to Revenue Management in Attended Home Delivery. , 2019, , .		3
50	Alternating Direction of Multipliers Method for Block Circulant Model Predictive Control. , 2019, , .		3
51	OxVent: Design and evaluation of a rapidly-manufactured Covid-19 ventilator. EBioMedicine, 2022, 76, 103868.	6.1	3
52	Electric Vehicles aggregator optimization: a fast and solver-free solution method. , 2014, , .		2
53	Accuracy of approximate projection to the semidefinite cone. Linear Algebra and Its Applications, 2020, 594, 177-192.	0.9	2
54	Symmetry Exploitation in Orbit Feedback Systems of Synchrotrons for Computational Efficiency. IEEE Transactions on Nuclear Science, 2021, 68, 258-269.	2.0	2

#	ARTICLE	IF	CITATIONS
55	Output feedback stochastic MPC with packet losses. IFAC-PapersOnLine, 2020, 53, 7105-7110.	0.9	2
56	Fast Gradient Method for Model Predictive Control with Input Rate and Amplitude Constraints. IFAC-PapersOnLine, 2020, 53, 6542-6547.	0.9	2
57	Efficient Semidefinite Programming with Approximate ADMM. Journal of Optimization Theory and Applications, 2022, 192, 292-320.	1.5	2
58	Stochastic output feedback MPC with intermittent observations. Automatica, 2022, 141, 110282.	5.0	2
59	A necessary optimality condition for constrained optimal control of hybrid systems. , 2015, , .		1
60	Global linear convergence in operator splitting methods. , 2016, , .		1
61	An active-set algorithm for norm constrained quadratic problems. Mathematical Programming, 2022, 193, 447-483.	2.4	1
62	Gradient-Bounded Dynamic Programming with Submodular and Concave extensible Value Functions. IFAC-PapersOnLine, 2020, 53, 6825-6830.	0.9	1
63	Probabilistic Stabilizability Certificates for a Class of Black-Box Linear Systems. , 2022, 6, 584-589.		0
64	Gradient-bounded dynamic programming for submodular and concave extensible value functions with probabilistic performance guarantees. Automatica, 2022, 135, 109897.	5.0	0