

Sebastien Gros

List of Publications by Citations

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

91
papers

987
citations

17
h-index

27
g-index

100
ext. papers

1,334
ext. citations

3
avg, IF

5.38
L-index

#	Paper	IF	Citations
91	From linear to nonlinear MPC: bridging the gap via the real-time iteration. <i>International Journal of Control</i> , 2020 , 93, 62-80	1.5	83
90	An Analysis of the Directional-Modifier Adaptation Algorithm Based on Optimal Experimental Design. <i>Processes</i> , 2017 , 5, 1	2.9	57
89	Airborne Wind Energy Based on Dual Airfoils. <i>IEEE Transactions on Control Systems Technology</i> , 2013 , 21, 1215-1222	4.8	40
88	Optimal Coordination of Automated Vehicles at Intersections: Theory and Experiments. <i>IEEE Transactions on Control Systems Technology</i> , 2019 , 27, 2510-2525	4.8	35
87	Indefinite linear MPC and approximated economic MPC for nonlinear systems. <i>Journal of Process Control</i> , 2014 , 24, 1273-1281	3.9	33
86	Data-Driven Economic NMPC Using Reinforcement Learning. <i>IEEE Transactions on Automatic Control</i> , 2020 , 65, 636-648	5.9	32
85	A Lyapunov function for periodic economic optimizing Model Predictive Control 2013 ,		31
84	Real-time economic nonlinear model predictive control for wind turbine control. <i>International Journal of Control</i> , 2017 , 90, 2799-2812	1.5	30
83	A tracking MPC formulation that is locally equivalent to economic MPC. <i>Journal of Process Control</i> , 2016 , 45, 30-42	3.9	30
82	Primal decomposition of the optimal coordination of vehicles at traffic intersections 2016 ,		30
81	Modeling of Airborne Wind Energy Systems in Natural Coordinates. <i>Green Energy and Technology</i> , 2013 , 181-203	0.6	27
80	Safe Reinforcement Learning Using Robust MPC. <i>IEEE Transactions on Automatic Control</i> , 2021 , 66, 3638-3652	3.52	26
79	Day-Ahead Scheduling and Real-Time Economic MPC of CHP Unit in Microgrid With Smart Buildings. <i>IEEE Transactions on Smart Grid</i> , 2019 , 10, 1992-2001	10.7	24
78	An improved method for Wiener-Hammerstein system identification based on the Fractional Approach. <i>Automatica</i> , 2018 , 94, 349-360	5.7	21
77	Numerical Trajectory Optimization for Airborne Wind Energy Systems Described by High Fidelity Aircraft Models. <i>Green Energy and Technology</i> , 2013 , 205-218	0.6	20
76	Control of Airborne Wind Energy systems based on Nonlinear Model Predictive Control & Moving Horizon Estimation 2013 ,		18
75	Nonlinear MPC and MHE for Mechanical Multi-Body Systems with Application to Fast Tethered Airplanes. <i>IFAC Postprint Volumes IPPV / International Federation of Automatic Control</i> , 2012 , 45, 86-93		18

74	Control of Dual-Airfoil Airborne Wind Energy systems based on nonlinear MPC and MHE 2014 ,		16
73	An economic NMPC formulation for wind turbine control 2013 ,		16
72	Lifted collocation integrators for direct optimal control in ACADO toolkit. <i>Mathematical Programming Computation</i> , 2017 , 9, 527-571	7.8	16
71	Efficient NMPC for nonlinear models with linear subsystems 2013 ,		16
70	Energy-Optimal Coordination of Autonomous Vehicles at Intersections 2018 ,		16
69	A relaxation strategy for the optimization of Airborne Wind Energy systems 2013 ,		15
68	Optimisation-based coordination of connected, automated vehicles at intersections. <i>Vehicle System Dynamics</i> , 2020 , 58, 726-747	2.8	14
67	A real-time MHE and NMPC scheme for wind turbine control 2013 ,		14
66	Practical Reinforcement Learning of Stabilizing Economic MPC 2019 ,		13
65	Induction in Optimal Control of Multiple-Kite Airborne Wind Energy Systems. <i>IFAC-PapersOnLine</i> , 2017 , 50, 153-158	0.7	13
64	MPC approaches for modulating air-to-water heat pumps in radiant-floor buildings. <i>Control Engineering Practice</i> , 2020 , 95, 104209	3.9	13
63	Autonomous docking using direct optimal control. <i>IFAC-PapersOnLine</i> , 2019 , 52, 97-102	0.7	13
62	Aircraft control based on fast non-linear MPC & multiple-shooting 2012 ,		12
61	Baumgarte stabilisation over the SO(3) rotation group for control 2015 ,		11
60	Model Predictive Control of Rigid-Airfoil Airborne Wind Energy Systems. <i>Green Energy and Technology</i> , 2013 , 219-233	0.6	10
59	Inexact Newton-Type Optimization with Iterated Sensitivities. <i>SIAM Journal on Optimization</i> , 2018 , 28, 74-95	2	9
58	Airborne Wind Energy: Airfoil-Airmass Interaction. <i>IFAC Postprint Volumes IPPV / International Federation of Automatic Control</i> , 2014 , 47, 5814-5819		9
57	An improved Distributed Dual Newton-CG method for convex quadratic programming problems 2014 ,		9

56	Experimental validation of a semi-distributed sequential quadratic programming method for optimal coordination of automated vehicles at intersections. <i>Optimal Control Applications and Methods</i> , 2020 , 41, 1068-1096	1.7	9
55	Optimal Coordination of Automated Vehicles at Intersections with Turns 2019 ,		9
54	Wind turbine fatigue reduction based on economic-tracking NMPC with direct ANN fatigue estimation. <i>Renewable Energy</i> , 2020 , 147, 1632-1641	8.1	9
53	An inner convex approximation algorithm for BMI optimization and applications in control 2012 ,		8
52	Rotational start-up of tethered airplanes based on nonlinear MPC and MHE 2013 ,		8
51	An improved dual Newton strategy for scenario-tree MPC 2016 ,		8
50	A Parallelizable Interior Point Method for Two-Stage Robust MPC. <i>IEEE Transactions on Control Systems Technology</i> , 2017 , 25, 2087-2097	4.8	7
49	Reinforcement Learning-Based Tracking Control of USVs in Varying Operational Conditions. <i>Frontiers in Robotics and AI</i> , 2020 , 7, 32	2.8	7
48	Numerical Optimal Control With Periodicity Constraints in the Presence of Invariants. <i>IEEE Transactions on Automatic Control</i> , 2018 , 63, 2818-2832	5.9	7
47	Orbit control for a power generating airfoil based on nonlinear MPC 2012 ,		7
46	An improved real-time economic NMPC scheme for Wind Turbine control using spline-interpolated aerodynamic coefficients 2014 ,		6
45	Fast auto generated ACADO integrators and application to MHE with multi-rate measurements 2013 ,		6
44	Robust and Stable Periodic Flight of Power Generating Kite Systems in a Turbulent Wind Flow Field. <i>IFAC Postprint Volumes IPPV / International Federation of Automatic Control</i> , 2012 , 45, 140-145		6
43	Penalty Functions for Handling Large Deviation of Quadrature States in NMPC. <i>IEEE Transactions on Automatic Control</i> , 2017 , 62, 3848-3860	5.9	5
42	Lifted implicit integrators for direct optimal control 2015 ,		5
41	Optimization-Based Automatic Docking and Berthing of ASVs Using Exteroceptive Sensors: Theory and Experiments. <i>IEEE Access</i> , 2020 , 8, 204974-204986	3.5	5
40	Precision Deep-Stall Landing of Fixed-Wing UAVs Using Nonlinear Model Predictive Control. <i>Journal of Intelligent and Robotic Systems: Theory and Applications</i> , 2021 , 101, 1	2.9	5
39	An Asynchronous Algorithm for Optimal Vehicle Coordination at Traffic Intersections * **This work was supported by Copplar (project number 32226302), the Swedish Research Council (VR, grant number 2012-4038) and the European Commission Seventh Framework (AdaptIVe, grant number 610428). <i>IFAC PapersOnLine</i> , 2017 , 50, 12008-12014	0.7	4

38	A primal-dual Newton method for distributed Quadratic Programming 2014 ,		4
37	NMPC based on Huber penalty functions to handle large deviations of quadrature states 2013 ,		4
36	An Experimental Test Setup for Advanced Estimation and Control of an Airborne Wind Energy System. <i>Green Energy and Technology</i> , 2013 , 459-471	0.6	4
35	The value of airborne wind energy to the electricity system. <i>Wind Energy</i> ,	3.4	4
34	2018 ,		4
33	Local properties of economic NMPC, dissipativity and dynamic programming 2014 ,		3
32	A distributed algorithm for NMPC-based wind farm control 2014 ,		3
31	A Two-Time-Scale Control Scheme for Fast Unconstrained Systems 2007 , 551-563		3
30	A Game Approach for Charging Station Placement Based on User Preferences and Crowdedness. <i>IEEE Transactions on Intelligent Transportation Systems</i> , 2020 , 1-16	6.1	3
29	Inexact Newton based Lifted Implicit Integrators for fast Nonlinear MPC. <i>IFAC-PapersOnLine</i> , 2015 , 48, 32-38	0.7	2
28	Attitude estimation based on inertial and position measurements 2012 ,		2
27	A Semidistributed Interior Point Algorithm for Optimal Coordination of Automated Vehicles at Intersections. <i>IEEE Transactions on Control Systems Technology</i> , 2021 , 1-13	4.8	2
26	Reinforcement learning-based NMPC for tracking control of ASVs: Theory and experiments. <i>Control Engineering Practice</i> , 2022 , 120, 105024	3.9	2
25	Reinforcement Learning based on Scenario-tree MPC for ASVs 2021 ,		2
24	Implicit Non-convex Model Predictive Control. <i>Control Engineering</i> , 2019 , 305-333	1	2
23	Optimal Model-Based Trajectory Planning With Static Polygonal Constraints. <i>IEEE Transactions on Control Systems Technology</i> , 2021 , 1-12	4.8	2
22	Multi-market Scheduling of Battery Storages Within Renewable Portfolios 2018 ,		2
21	Numerical Structure of the Hessian of the Lagrange Dual Function for a Class of Convex Problems. <i>SIAM Journal on Control and Optimization</i> , 2017 , 55, 574-593	1.9	1

20	Rare Event Chance-Constrained Optimal Control Using Polynomial Chaos and Subset Simulation. <i>Processes</i> , 2019 , 7, 185	2.9	1
19	Optimization-based load reduction during rapid shutdown of multi-megawatt wind turbine generators. <i>Wind Energy</i> , 2014 , 17, 1055-1075	3.4	1
18	Implicit Integrators for Linear Dynamics Coupled to a Nonlinear Static Feedback and Application to Wind Turbine Control. <i>IFAC-PapersOnLine</i> , 2017 , 50, 545-551	0.7	1
17	Approximate inverses in preconditioned fast dual gradient methods for MPC. <i>IFAC-PapersOnLine</i> , 2017 , 50, 5901-5906	0.7	1
16	A Newton algorithm for distributed Semi-Definite Programs using the primal-dual interior-point method 2014 ,		1
15	In-flight Estimation of the Aerodynamic Roll Damping and Trim Angle for a Tethered Aircraft based on Multiple-shooting*. <i>IFAC Postprint Volumes IPPV / International Federation of Automatic Control</i> , 2012 , 45, 1407-1412		1
14	Economic NMPC for Multiple Buildings Connected to a Heat Pump and Thermal and Electrical Storages. <i>IFAC-PapersOnLine</i> , 2020 , 53, 17089-17094	0.7	1
13	Experimental Validation of Distributed Optimal Vehicle Coordination 2018 ,		1
12	Hierarchical Control of Electric Bus Lines. <i>IFAC-PapersOnLine</i> , 2020 , 53, 14179-14184	0.7	1
11	Reinforcement Learning Based on Real-Time Iteration NMPC. <i>IFAC-PapersOnLine</i> , 2020 , 53, 5213-5218	0.7	1
10	An inexact interior point method for optimization of differential algebraic systems. <i>Computers and Chemical Engineering</i> , 2016 , 92, 163-171	4	1
9	Tracking control and state estimation of a mobile robot based on NMPC and MHE 2016 ,		1
8	Bilevel Optimization for Bunching Mitigation and Eco-Driving of Electric Bus Lines. <i>IEEE Transactions on Intelligent Transportation Systems</i> , 2021 , 1-18	6.1	1
7	Can AI Abuse Personal Information in an EV Fast-Charging Market?. <i>IEEE Transactions on Intelligent Transportation Systems</i> , 2021 , 1-11	6.1	1
6	Verification of Dissipativity and Evaluation of Storage Function in Economic Nonlinear MPC using Q-Learning. <i>IFAC-PapersOnLine</i> , 2021 , 54, 308-313	0.7	1
5	Reinforcement Learning of the Prediction Horizon in Model Predictive Control. <i>IFAC-PapersOnLine</i> , 2021 , 54, 314-320	0.7	0
4	A new dissipativity condition for asymptotic stability of discounted economic MPC. <i>Automatica</i> , 2022 , 141, 110287	5.7	0
3	Dual-Mode Batch-to-Batch Optimization as a Markov Decision Process. <i>Industrial & Engineering Chemistry Research</i> , 2019 , 58, 13780-13791	3.9	

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| 2 | Methodology for Emergency Shut-Down of Multi-Megawatt Wind Turbine Generators. <i>Computer Aided Chemical Engineering</i> , 2012 , 31, 1251-1255 | 0.6 |
| 1 | Practical Economic MPC. <i>Proceedings in Applied Mathematics and Mechanics</i> , 2021 , 20, e202000216 | 0.2 |