

Ilya V Kolmanovsky

List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/5853538/publications.pdf>

Version: 2024-02-01

329
papers

8,582
citations

87723

38
h-index

69108

77
g-index

330
all docs

330
docs citations

330
times ranked

4305
citing authors

#	ARTICLE	IF	CITATIONS
1	MPC-Based Emergency Vehicle-Centered Multi-Intersection Traffic Control. IEEE Transactions on Control Systems Technology, 2023, 31, 166-178.	3.2	7
2	Game-Theoretic Modeling of Multi-Vehicle Interactions at Uncontrolled Intersections. IEEE Transactions on Intelligent Transportation Systems, 2022, 23, 1428-1442.	4.7	35
3	Robust Action Governor for Discrete-Time Piecewise Affine Systems With Additive Disturbances. , 2022, 6, 950-955.		1
4	Multihorizon Model Predictive Control: An Application to Integrated Power and Thermal Management of Connected Hybrid Electric Vehicles. IEEE Transactions on Control Systems Technology, 2022, 30, 1052-1064.	3.2	15
5	Scalable Vehicle Team Continuum Deformation Coordination With Eigen Decomposition. IEEE Transactions on Automatic Control, 2022, 67, 2514-2521.	3.6	1
6	Set-Theoretic Failure Mode Reconfiguration for Stuck Actuators. , 2022, 6, 1316-1321.		1
7	Coordinated Receding-Horizon Control of Battery Electric Vehicle Speed and Gearshift Using Relaxed Mixed-Integer Nonlinear Programming. IEEE Transactions on Control Systems Technology, 2022, 30, 1473-1483.	3.2	5
8	An Analysis of Closed-Loop Stability for Linear Model Predictive Control Based on Time-Distributed Optimization. IEEE Transactions on Automatic Control, 2022, 67, 2618-2625.	3.6	9
9	Game-Theoretic Modeling of Traffic in Unsignalized Intersection Network for Autonomous Vehicle Control Verification and Validation. IEEE Transactions on Intelligent Transportation Systems, 2022, 23, 2211-2226.	4.7	37
10	A Multirange Vehicle Speed Prediction With Application to Model Predictive Control-Based Integrated Power and Thermal Management of Connected Hybrid Electric Vehicles. Journal of Dynamic Systems, Measurement and Control, Transactions of the ASME, 2022, 144, .	0.9	10
11	A Feasibility Governor for Enlarging the Region of Attraction of Linear Model Predictive Controllers. IEEE Transactions on Automatic Control, 2022, 67, 5501-5508.	3.6	5
12	Reference Governor-based fault-tolerant constrained control. Automatica, 2022, 136, 110089.	3.0	9
13	ROTEC: Robust to early termination command governor for systems with limited computing capacity. Systems and Control Letters, 2022, 161, 105142.	1.3	4
14	Improving autonomous vehicle in-traffic safety using learning-based action governor. Advanced Control for Applications, 2022, 4, .	0.8	2
15	A reference governor for linear systems with polynomial constraints. Automatica, 2022, 142, 110313.	3.0	4
16	Implementing Optimization-Based Control Tasks in Cyber-Physical Systems With Limited Computing Capacity. , 2022, , .		3
17	Hierarchical MPC for Robust Eco-Cooling of Connected and Automated Vehicles and Its Application to Electric Vehicle Battery Thermal Management. IEEE Transactions on Control Systems Technology, 2021, 29, 316-328.	3.2	60
18	Distributed State Estimation for Linear Systems With Application to Full-Car Active Suspension Systems. IEEE Transactions on Industrial Electronics, 2021, 68, 1615-1625.	5.2	8

#	ARTICLE	IF	CITATIONS
19	Full State Feedback Foiling Control for America's Cup Catamarans. IEEE Transactions on Control Systems Technology, 2021, 29, 1-17.	3.2	4
20	Action Governor for Discrete-Time Linear Systems With Non-Convex Constraints. , 2021, 5, 121-126.		5
21	Model predictive control for drift counteraction of stochastic constrained linear systems. Automatica, 2021, 123, 109304.	3.0	9
22	An Analytical Safe Approximation to Joint Chance-Constrained Programming With Additive Gaussian Noises. IEEE Transactions on Automatic Control, 2021, 66, 5490-5497.	3.6	3
23	Fuzzy Encoded Markov Chains: Overview, Observer Theory, and Applications. IEEE Transactions on Systems, Man, and Cybernetics: Systems, 2021, 51, 116-130.	5.9	2
24	Stochastic Drift Counteraction Optimal Control of a Fuel Cell-Powered Small Unmanned Aerial Vehicle. Energies, 2021, 14, 1304.	1.6	1
25	Stochastic model predictive control for remanufacturing system management. Journal of Manufacturing Systems, 2021, 59, 355-366.	7.6	11
26	Feasibility Governor for Linear Model Predictive Control. , 2021, , .		2
27	Nonlinear Model Predictive Detumbling of Small Satellites with a Single-Axis Magnetorquer. Journal of Guidance, Control, and Dynamics, 2021, 44, 1211-1218.	1.6	2
28	Development, implementation, and experimental outdoor evaluation of quadcopter controllers for computationally limited embedded systems. Annual Reviews in Control, 2021, 52, 372-389.	4.4	7
29	Safe Affine Transformation-Based Guidance of a Large-Scale Multiquadcopter System. IEEE Transactions on Control of Network Systems, 2021, 8, 640-653.	2.4	6
30	A sum-of-squares-based procedure to approximate the Pontryagin difference of basic semi-algebraic sets. Automatica, 2021, 135, 109783.	3.0	0
31	Viability, viscosity, and storage functions in model-predictive control with terminal constraints. Automatica, 2021, 131, 109748.	3.0	1
32	Data-Driven Retrospective Cost Adaptive Control for Flight Control Applications. Journal of Guidance, Control, and Dynamics, 2021, 44, 1732-1758.	1.6	15
33	Chance-constrained controller state and reference governor. Automatica, 2021, 133, 109864.	3.0	7
34	Eco-Cooling Control Strategy for Automotive Air-Conditioning System: Design and Experimental Validation. IEEE Transactions on Control Systems Technology, 2021, 29, 2339-2350.	3.2	17
35	Autonomous Eco-Driving with Traffic Light and Lead Vehicle Constraints: An Application of Best Constrained Interpolation. IFAC-PapersOnLine, 2021, 54, 45-50.	0.5	12
36	Safe Learning Reference Governor: Theory and Application to Fuel Truck Rollover Avoidance. ASME Journal of Autonomous Vehicles and Systems, 2021, 1, .	0.6	5

#	ARTICLE	IF	CITATIONS
37	Cooperation-Aware Decision Making for Autonomous Vehicles in Merge Scenarios. , 2021, , .		5
38	Corrections to "Safe Affine Transformation-Based Guidance of a Large-Scale Multiquadcopter System" [Jun 21 640-653]. IEEE Transactions on Control of Network Systems, 2021, 8, 1987-1987.	2.4	0
39	An ADMM-based approach for multi-class recursive parameter estimation. , 2021, , .		0
40	A Convex Optimization Approach to Chance-Constrained Linear Stochastic Drift Counteraction Optimal Control. , 2021, , .		0
41	Robust Science-Optimal Spacecraft Control for Circular Orbit Missions. IEEE Transactions on Systems, Man, and Cybernetics: Systems, 2020, 50, 923-934.	5.9	14
42	Distributed Model Predictive Control for More Electric Aircraft Subsystems Operating at Multiple Time Scales. IEEE Transactions on Control Systems Technology, 2020, 28, 2177-2190.	3.2	17
43	A Model-Based Approach to the Estimation and Control of a Continuously Variable Transmission. IEEE Transactions on Control Systems Technology, 2020, 28, 1940-1947.	3.2	1
44	Cabin and Battery Thermal Management of Connected and Automated HEVs for Improved Energy Efficiency Using Hierarchical Model Predictive Control. IEEE Transactions on Control Systems Technology, 2020, 28, 1711-1726.	3.2	89
45	A Reference Governor for Nonlinear Systems With Disturbance Inputs Based on Logarithmic Norms and Quadratic Programming. IEEE Transactions on Automatic Control, 2020, 65, 3207-3214.	3.6	8
46	Sensitivity-Based Warmstarting for Nonlinear Model Predictive Control With Polyhedral State and Control Constraints. IEEE Transactions on Automatic Control, 2020, 65, 4288-4294.	3.6	3
47	Rapid uncertainty propagation and chance-constrained path planning for small unmanned aerial vehicles. Advanced Control for Applications, 2020, 2, e23.	0.8	8
48	Spacecraft Attitude Control With Nonconvex Constraints: An Explicit Reference Governor Approach. IEEE Transactions on Automatic Control, 2020, 65, 3677-3684.	3.6	19
49	Model-Predictive Spiral and Spin Upset Recovery Control for the Generic Transport Model Simulation. , 2020, , .		1
50	Model predictive emissions control of a diesel engine airpath: Design and experimental evaluation. International Journal of Robust and Nonlinear Control, 2020, 30, 7446-7477.	2.1	19
51	Detection-averse optimal and receding-horizon control for Markov decision processes. Automatica, 2020, 122, 109278.	3.0	4
52	Adaptive control allocation for constrained systems. Automatica, 2020, 121, 109161.	3.0	34
53	Energy-Efficient Autonomous Vehicle Control Using Reinforcement Learning and Interactive Traffic Simulations. , 2020, , .		6
54	Active Noise Control for Harmonic and Broadband Disturbances Using RLS-Based Model Predictive Control. , 2020, , .		10

#	ARTICLE	IF	CITATIONS
55	Cooperative constrained parameter estimation by ADMM-RLS. Automatica, 2020, 121, 109175.	3.0	5
56	A constraint-separation principle in model predictive control. Automatica, 2020, 121, 109190.	3.0	3
57	Hierarchical Optimization of Speed and Gearshift Control for Battery Electric Vehicles Using Preview Information. , 2020, , .		7
58	Long-Term Vehicle Speed Prediction via Historical Traffic Data Analysis for Improved Energy Efficiency of Connected Electric Vehicles. Transportation Research Record, 2020, 2674, 17-29.	1.0	20
59	Integrated Power and Thermal Management of Connected HEVs via Multi-Horizon MPC. , 2020, , .		11
60	Adaptive Control of Discrete-Time Systems with Unknown, Unstable Zero Dynamics. , 2020, , .		4
61	Spacecraft Relative Motion Planning Using Chained Chance-Constrained Admissible Sets. , 2020, , .		1
62	A novel approach for optimal trajectory design with multiple operation modes of propulsion system, part 1. Acta Astronautica, 2020, 172, 151-165.	1.7	30
63	Connected and automated road vehicles: state of the art and future challenges. Vehicle System Dynamics, 2020, 58, 672-704.	2.2	78
64	Learning reference governor for cycle-to-cycle combustion control with misfire avoidance in spark-ignition engines at high exhaust gas recirculationâ€diluted conditions. International Journal of Engine Research, 2020, 21, 1819-1834.	1.4	20
65	A novel approach for optimal trajectory design with multiple operation modes of propulsion system, part 2. Acta Astronautica, 2020, 172, 166-179.	1.7	16
66	FBstab: A proximally stabilized semismooth algorithm for convex quadratic programming. Automatica, 2020, 113, 108801.	3.0	18
67	Explicit Reference Governor for Constrained Maneuver and Shape Control of a Seven-State Multibody Aircraft. , 2020, , .		0
68	Time-distributed optimization for real-time model predictive control: Stability, robustness, and constraint satisfaction. Automatica, 2020, 117, 108973.	3.0	42
69	Quad-Rotor Flight Simulation in Realistic Atmospheric Conditions. AIAA Journal, 2020, 58, 1992-2004.	1.5	35
70	Deep Reinforcement Learning with Enhanced Safety for Autonomous Highway Driving. , 2020, , .		21
71	Output-Feedback RLS-Based Model Predictive Control. , 2020, , .		9
72	Approximating open-loop and closed-loop optimal control by model predictive control. , 2020, , .		1

#	ARTICLE	IF	CITATIONS
73	Triggered Measurements in Markov Processes for Entropy-Constrained State Estimation with Application to Precision Agriculture. , 2020, , .		0
74	Trajectory Optimization for Falsification:A Case Study of Vehicle Rollover Test Generation Based on Black-box Models. IFAC-PapersOnLine, 2020, 53, 14279-14284.	0.5	1
75	Aircraft Vision-Based Landing Using Robust Extended Command Governors. IFAC-PapersOnLine, 2020, 53, 14716-14723.	0.5	2
76	Model-free Learning for Safety-critical Control Systems: A Reference Governor Approach. , 2020, , .		7
77	Vision-Based Autonomous Driving: A Model Learning Approach. , 2020, , .		3
78	Beating humans in a penny-matching game by leveraging cognitive hierarchy theory and Bayesian learning. , 2020, , .		5
79	Game Theory-Based Traffic Modeling for Calibration of Automated Driving Algorithms. Lecture Notes in Control and Information Sciences, 2019, , 89-106.	0.6	8
80	Reference governors for chance-constrained systems. Automatica, 2019, 109, 108500.	3.0	11
81	A Traffic Simulation Model with Interactive Drivers and High-fidelity Car Dynamics. IFAC-PapersOnLine, 2019, 51, 384-389.	0.5	8
82	Stochastic Predictive Control for Partially Observable Markov Decision Processes With Time-Joint Chance Constraints and Application to Autonomous Vehicle Control. Journal of Dynamic Systems, Measurement and Control, Transactions of the ASME, 2019, 141, .	0.9	15
83	A vehicle routing problem with dynamic demands and restricted failures solved using stochastic predictive control. , 2019, , .		1
84	On Closed-loop Lyapunov Stability with Minimum-time MPC Feedback Laws for Discrete-time Systems. , 2019, , .		6
85	The FBstab Quadratic Programming Method Applied to Model Predictive Control: An Implicit Condensing Approach. , 2019, , .		2
86	Thermal Responses of Connected HEVs Engine and Aftertreatment Systems to Eco-Driving. , 2019, , .		5
87	Integrated optimization of Power Split, Engine Thermal Management, and Cabin Heating for Hybrid Electric Vehicles. , 2019, , .		20
88	Optimized Design of Multi-Speed Transmissions for Battery Electric Vehicles. , 2019, , .		7
89	Decision making in dynamic and interactive environments based on cognitive hierarchy theory, Bayesian inference, and predictive control. , 2019, , .		14
90	Sequential optimization of speed, thermal load, and power split in connected HEVs. , 2019, , .		30

#	ARTICLE	IF	CITATIONS
91	Robust Hierarchical MPC for Handling Long Horizon Demand Forecast Uncertainty with Application to Automotive Thermal Management. , 2019, , .		2
92	Stochastic Driver Modeling and Validation with Traffic Data. , 2019, , .		7
93	Model Predictive Control with Constraint Aggregation Applied to Conventional and Very Flexible Aircraft*. , 2019, , .		2
94	Scalar Reference Governor for Constrained Maneuver and Shape Control of Nonlinear Multibody Aircraft. IFAC-PapersOnLine, 2019, 52, 819-824.	0.5	2
95	Multi-mode Controller for Propellantless Spacecraft Translational Maneuvering Through Orientation Changes Only. IFAC-PapersOnLine, 2019, 52, 825-830.	0.5	0
96	Scenario Based Stochastic MPC for More Electric Aircraft Coordinated Engine and Power Management. , 2019, , .		2
97	MPC-based Precision Cooling Strategy (PCS) for Efficient Thermal Management of Automotive Air Conditioning System. , 2019, , .		10
98	Automotive Applications of Model Predictive Control. Control Engineering, 2019, , 493-527.	0.3	7
99	Embedding Constrained Model Predictive Control in a Continuous-Time Dynamic Feedback. IEEE Transactions on Automatic Control, 2019, 64, 1932-1946.	3.6	30
100	A Regularized and Smoothed Fischerâ€œBurmeister Method for Quadratic Programming With Applications to Model Predictive Control. IEEE Transactions on Automatic Control, 2019, 64, 2937-2944.	3.6	29
101	Inexact Newtonâ€œKantorovich Methods for Constrained Nonlinear Model Predictive Control. IEEE Transactions on Automatic Control, 2019, 64, 3602-3615.	3.6	9
102	LQ control of unknown discreteâ€œtime linear systemsâ€œ”A novel approach and a comparison study. Optimal Control Applications and Methods, 2019, 40, 265-291.	1.3	6
103	Model Predictive Control Architectures for Maneuver Load Alleviation in Very Flexible Aircraft. , 2019, , .		4
104	Minimum-Time Model Predictive Spacecraft Attitude Control for Waypoint Following and Exclusion Zone Avoidance. , 2019, , .		1
105	Explicit Reference Governor for the Constrained Control of Linear Time-Delay Systems. IEEE Transactions on Automatic Control, 2019, 64, 2883-2889.	3.6	10
106	Attitude Control of a 2U Cubesat by Magnetic and Air Drag Torques. IEEE Transactions on Control Systems Technology, 2019, 27, 1047-1059.	3.2	22
107	Model-free Learning to Avoid Constraint Violations: An Explicit Reference Governor Approach. , 2019, , .		14
108	Combined Energy and Comfort Optimization of Air Conditioning System in Connected and Automated Vehicles. , 2019, , .		5

#	ARTICLE	IF	CITATIONS
109	Training Drift Counteraction Optimal Control Policies Using Reinforcement Learning: An Adaptive Cruise Control Example. IEEE Transactions on Intelligent Transportation Systems, 2018, 19, 2903-2912.	4.7	14
110	Performance Comparison of Smoothing Functions for Indirect Optimization of Minimum-Fuel Low-thrust Trajectories. , 2018, , .		3
111	Complex Interplanetary Trajectories Design with Low-Thrust Based Motion Primitives. , 2018, , .		0
112	On Satellite Orbit Decay Compensation in Low Earth Orbits. , 2018, , .		2
113	An Evaluation of Stochastic Model-Dependent and Model-Independent Glider Flight Management. IEEE Transactions on Control Systems Technology, 2018, 26, 1040-1056.	3.2	2
114	Game Theoretic Modeling of Driver and Vehicle Interactions for Verification and Validation of Autonomous Vehicle Control Systems. IEEE Transactions on Control Systems Technology, 2018, 26, 1782-1797.	3.2	165
115	Simple Input Disturbance Observer-Based Control: Case Studies. Journal of Dynamic Systems, Measurement and Control, Transactions of the ASME, 2018, 140, .	0.9	7
116	Visual-Manual Distraction Detection Using Driving Performance Indicators With Naturalistic Driving Data. IEEE Transactions on Intelligent Transportation Systems, 2018, 19, 2528-2535.	4.7	61
117	Reference Governor Strategies for Vehicle Rollover Avoidance. IEEE Transactions on Control Systems Technology, 2018, 26, 1954-1969.	3.2	29
118	Cloud resource allocation for cloud-based automotive applications. Mechatronics, 2018, 50, 356-365.	2.0	16
119	Shaping low-thrust trajectories with thrust-handling feature. Advances in Space Research, 2018, 61, 879-890.	1.2	34
120	Two-Layer Model Predictive Battery Thermal and Energy Management Optimization for Connected and Automated Electric Vehicles. , 2018, , .		22
121	Adaptive Game-Theoretic Decision Making for Autonomous Vehicle Control at Roundabouts. , 2018, , .		60
122	A Semismooth Predictor Corrector Method for Real-Time Constrained Parametric Optimization with Applications in Model Predictive Control. , 2018, , .		7
123	Tractable Stochastic Predictive Control for Partially Observable Markov Decision Processes with Time-Joint Chance Constraints. , 2018, , .		3
124	Drift Counteraction and Control of Downsized and Underactuated Systems: What MPC Has to Offer?. IFAC-PapersOnLine, 2018, 51, 175-190.	0.5	3
125	Optimal Control Based Falsification of Unknown Systems with Time Delays: A Gasoline Engine A/F Ratio Control Case Study. IFAC-PapersOnLine, 2018, 51, 252-257.	0.5	3
126	Model Predictive Climate Control of Connected and Automated Vehicles for Improved Energy Efficiency. , 2018, , .		32

#	ARTICLE	IF	CITATIONS
127	A Study on GPU-Enabled Lambert's Problem Solution for Space Targeting Missions. , 2018, , .		2
128	Stochastic MPC Approach to Drift Counteraction. , 2018, , .		2
129	Dynamically Embedded Model Predictive Control. , 2018, , .		3
130	Model Predictive Control of Spacecraft Relative Motion with Convexified Keep-Out-Zone Constraints. Journal of Guidance, Control, and Dynamics, 2018, 41, 2054-2062.	1.6	34
131	Constrained control of free piston engine generator based on implicit reference governor. Science China Information Sciences, 2018, 61, 1.	2.7	12
132	Coordinated Model Predictive Control of Aircraft Gas Turbine Engine with Simplified Electrical System Model. , 2018, , .		0
133	Rapid Uncertainty Propagation and Chance-Constrained Trajectory Optimization for Small Unmanned Aerial Vehicles. , 2018, , .		3
134	Invariance-based Spacecraft Relative Motion Planning Incorporating Bounded Disturbances and Minimum Thrust Constraints. , 2018, , .		3
135	Spacecraft Drift Counteraction Optimal Control: Open-Loop and Receding Horizon Solutions. Journal of Guidance, Control, and Dynamics, 2018, 41, 1859-1872.	1.6	6
136	Game Theoretic Modeling of Vehicle Interactions at Unsignalized Intersections and Application to Autonomous Vehicle Control. , 2018, , .		39
137	Cloud-aided collaborative estimation by ADMM-RLS algorithms for connected diagnostics and prognostics. , 2018, , .		3
138	Toward Real-Time Automotive Model Predictive Control: A Perspective from a Diesel Air Path Control Development. , 2018, , .		5
139	Real-time optimization and model predictive control for aerospace and automotive applications. , 2018, , .		46
140	Solution to the HJB equation for LQR-type problems on compact connected Lie groups. Automatica, 2018, 95, 525-528.	3.0	2
141	Zonotope-based recursive estimation of the feasible solution set for linear static systems with additive and multiplicative uncertainties. Automatica, 2018, 95, 236-245.	3.0	19
142	Optimal Strategies for Disjunctive Sensing and Control. , 2018, , .		2
143	Energy-Efficient Control Approach for Automated HEV and BEV With Short-Horizon Preview Information. , 2018, , .		5
144	Combined homotopy and neighboring extremal optimal control. Optimal Control Applications and Methods, 2017, 38, 459-469.	1.3	3

#	ARTICLE	IF	CITATIONS
145	Approximate Closed-Form Solution to a Linear Quadratic Optimal Control Problem with Disturbance. Journal of Guidance, Control, and Dynamics, 2017, 40, 477-483.	1.6	2
146	Co-state initialization for the minimum-time low-thrust trajectory optimization. Advances in Space Research, 2017, 59, 2360-2373.	1.2	51
147	Iterative model and trajectory refinement for orbital trajectory optimization. Optimal Control Applications and Methods, 2017, 38, 1132-1147.	1.3	1
148	Coordinated Model Predictive Control of Aircraft Gas Turbine Engine and Power System. Journal of Guidance, Control, and Dynamics, 2017, 40, 2538-2555.	1.6	29
149	Geometric Mechanics Based Nonlinear Model Predictive Spacecraft Attitude Control with Reaction Wheels. Journal of Guidance, Control, and Dynamics, 2017, 40, 309-319.	1.6	46
150	MPC on manifolds with an application to the control of spacecraft attitude on SO(3). Automatica, 2017, 76, 293-300.	3.0	43
151	Predictive propulsion and power control for large transient power loads in a More Electric Aircraft. , 2017, , .		11
152	A cascaded economic model predictive control strategy for a diesel engine using a non-uniform prediction horizon discretization. , 2017, , .		11
153	Constrained Spacecraft Relative Motion Planning Exploiting Periodic Natural Motion Trajectories and Invariance. Journal of Guidance, Control, and Dynamics, 2017, 40, 3100-3115.	1.6	34
154	Model-free optimal control based automotive control system falsification. , 2017, , .		7
155	Drift counteraction optimal control for deterministic systems and enhancing convergence of value iteration. Automatica, 2017, 83, 108-115.	3.0	5
156	Parameter Governors for Coordinated Control of n-Spacecraft Formations. Journal of Guidance, Control, and Dynamics, 2017, 40, 3020-3025.	1.6	6
157	Distributed MPC via ADMM for Coordination and Control of More Electric Aircraft Subsystems. , 2017, , .		5
158	Fast Computable Recoverable Sets and Their Use for Aircraft Loss-of-Control Handling. Journal of Guidance, Control, and Dynamics, 2017, 40, 934-947.	1.6	20
159	Reference and command governors for systems with constraints: A survey on theory and applications. Automatica, 2017, 75, 306-328.	3.0	278
160	Optimal State Estimation for Systems Driven by Jumpâ€“Diffusion Process With Application to Road Anomaly Detection. IEEE Transactions on Control Systems Technology, 2017, 25, 1634-1643.	3.2	13
161	Envelope-Aware Flight Management for Loss of Control Prevention Given Rudder Jam. Journal of Guidance, Control, and Dynamics, 2017, 40, 1027-1041.	1.6	18
162	Model Predictive Control of an Underactuated Spacecraft with Two Reaction Wheels. Journal of Guidance, Control, and Dynamics, 2017, 40, 320-332.	1.6	19

#	ARTICLE	IF	CITATIONS
163	A New Clustering Algorithm for Processing GPS-Based Road Anomaly Reports With a Mahalanobis Distance. IEEE Transactions on Intelligent Transportation Systems, 2017, 18, 1980-1988.	4.7	34
164	Stability, Control, and Constraint Enforcement of Piston Motion in a Hydraulic Free-Piston Engine. IEEE Transactions on Control Systems Technology, 2017, 25, 1284-1296.	3.2	8
165	A Finite State Machine Based Automated Driving Controller and its Stochastic Optimization. , 2017, , .		24
166	Optimal Driving Policies for Autonomous Vehicles Based on Stochastic Drift Counteraction. IFAC-PapersOnLine, 2017, 50, 290-296.	0.5	8
167	Constraint Enforcement for a Lighter-than-Air Wind-Energy System: An Application of Reference Governors with Chance Constraints. IFAC-PapersOnLine, 2017, 50, 13258-13263.	0.5	4
168	Incorporating periodic and non-periodic natural motion trajectories into constrained invariance-based spacecraft relative motion planning. , 2017, , .		6
169	Control of Gear Ratio and Slip in Continuously Variable Transmissions: A Model Predictive Control Approach. , 2017, , .		7
170	Zonotope-based set-membership parameter identification of linear systems with additive and multiplicative uncertainties: A new algorithm. , 2017, , .		6
171	A new algorithm for a class of deterministic drift counteraction optimal control problems. , 2017, , .		1
172	H-infinity Filtering for Cloud-Aided Semi-active Suspension with Delayed Information. Advances in Delays and Dynamics, 2017, , 283-297.	0.4	1
173	Optimal and receding horizon drift counteraction control: Linear programming approaches. , 2017, , .		7
174	Recovering Linear Controllability of an Underactuated Spacecraft by Exploiting Solar Radiation Pressure. Journal of Guidance, Control, and Dynamics, 2016, 39, 826-837.	1.6	9
175	Co-states initialization of minimum-time low-thrust trajectories using shape-based methods. , 2016, , .		3
176	Failure Prognostics for In-Tank Fuel Pumps of the Returnless Fuel Systems. , 2016, , .		3
177	Stochastic drift counteraction optimal control and enhancing convergence of value iteration. , 2016, , .		7
178	Constrained control for soft landing on an asteroid with gravity model uncertainty. , 2016, , .		8
179	A Perturbed Chord (Newton-Kantorovich) Method for Constrained Nonlinear Model Predictive Control. IFAC-PapersOnLine, 2016, 49, 253-258.	0.5	6
180	Integrated/coordinated control of aircraft gas turbine engine and electrical power system: Towards large electrical load handling. , 2016, , .		9

#	ARTICLE	IF	CITATIONS
181	Time Shift Governor for Coordinated Control of Two Spacecraft Formations. IFAC-PapersOnLine, 2016, 49, 296-301.	0.5	6
182	Hierarchical reasoning game theory based approach for evaluation and testing of autonomous vehicle control systems. , 2016, , .		37
183	Nonlinear Dynamic Inversion of a Flexible Aircraft. IFAC-PapersOnLine, 2016, 49, 338-342.	0.5	10
184	Set-membership condition monitoring framework for dual fuel engines. , 2016, , .		10
185	Nonlinear control of semi-active suspension systems: A Quasi-Linear Control approach. , 2016, , .		4
186	Enhanced Smoothing Technique for Indirect Optimization of Minimum-Fuel Low-Thrust Trajectories. Journal of Guidance, Control, and Dynamics, 2016, 39, 2500-2511.	1.6	81
187	Fault tolerant control for over-actuated systems: An adaptive correction approach. , 2016, , .		14
188	MPC on manifolds with an application to SE(3). , 2016, , .		9
189	Model Predictive Control Strategies for Constrained Soft Landing on an Asteroid. , 2016, , .		17
190	Underactuated Spacecraft Switching Law for Two Reaction Wheels and Constant Angular Momentum. Journal of Guidance, Control, and Dynamics, 2016, 39, 2086-2099.	1.6	10
191	A game theoretical model of traffic with multiple interacting drivers for use in autonomous vehicle development. , 2016, , .		33
192	Simultaneous road profile estimation and anomaly detection with an input observer and a jump diffusion process estimator. , 2016, , .		11
193	Constrained attitude maneuvering of a spacecraft with reaction wheel assembly by Nonlinear Model Predictive Control. , 2016, , .		2
194	Deterministic Drift Counteraction Optimal Control for Attitude Control of Spacecraft with Time-Varying Mass. , 2016, , .		4
195	Rate-Based Model Predictive Controller for Diesel Engine Air Path: Design and Experimental Evaluation. IEEE Transactions on Control Systems Technology, 2016, 24, 1922-1935.	3.2	38
196	Reference Governors for Enforcing Compressor Surge Constraints. IEEE Transactions on Control Systems Technology, 2016, 24, 1729-1739.	3.2	9
197	Road Risk Modeling and Cloud-Aided Safety-Based Route Planning. IEEE Transactions on Cybernetics, 2016, 46, 2473-2483.	6.2	40
198	Neighboring extremal optimal control for mechanical systems on Riemannian manifolds. Journal of Geometric Mechanics, 2016, 8, 257-272.	0.5	10

#	ARTICLE	IF	CITATIONS
199	H ∞ Filtering for Cloud-Aided Semi-active Suspension with Delayed Road Information—This work was supported by Ford Motor Company-The University of Michigan Alliance.. IFAC-PapersOnLine, 2015, 48, 275-280.	0.5	14
200	Deterministic drift counteraction optimal control and its application to satellite life extension. , 2015, , .		9
201	Nonlinear Model Predictive Control of a Diesel Engine Air Path: A Comparison of Constraint Handling and Computational Strategies. IFAC-PapersOnLine, 2015, 48, 372-379.	0.5	60
202	Hardware implementation of Model Predictive Control for relative motion maneuvering. , 2015, , .		6
203	Controller state and reference governors for discrete-time linear systems with pointwise-in-time state and control constraints. , 2015, , .		1
204	Launch Performance Optimization of GTDI-DCT Powertrain. SAE International Journal of Engines, 2015, 8, 1398-1407.	0.4	2
205	Robust H ∞ control for a class of networked uncertain systems with multiple channels subject to Markovian switching. , 2015, , .		5
206	Dual-loop Control of Free Piston Engine Generator. IFAC-PapersOnLine, 2015, 48, 174-180.	0.5	8
207	Feedback Control during Mode Transition for a Marine Dual Fuel Engine—This project is supported by American Bureau of Shipping (ABS), ABS-University of Michigan Research Center for Marine and O ₂ shore Design Performance.. IFAC-PapersOnLine, 2015, 48, 279-284.	0.5	4
208	Linear control of underactuated spacecraft with two reaction wheels made feasible by solar radiation pressure. , 2015, , .		0
209	Modeling and predictive control of Free Piston Engine Generator. , 2015, , .		6
210	Constrained Model Predictive Control of spacecraft attitude with reaction wheels desaturation. , 2015, , .		12
211	Road anomaly estimation: Model based pothole detection. , 2015, , .		14
212	Safe Positively Invariant Sets for Spacecraft Obstacle Avoidance. Journal of Guidance, Control, and Dynamics, 2015, 38, 720-732.	1.6	52
213	Real-Time Model Predictive Control for Shipboard Power Management Using the IPA-SQP Approach. IEEE Transactions on Control Systems Technology, 2015, 23, 2129-2143.	3.2	83
214	Model Predictive Control for Spacecraft Rendezvous and Docking: Strategies for Handling Constraints and Case Studies. IEEE Transactions on Control Systems Technology, 2015, 23, 1638-1647.	3.2	185
215	A neural network approach to retinal layer boundary identification from optical coherence tomography images. , 2015, , .		12
216	Fixed-point constrained Model Predictive Control of spacecraft attitude. , 2015, , .		15

#	ARTICLE	IF	CITATIONS
217	Reference governor for Network Control Systems subject to variable time-delay. Automatica, 2015, 62, 77-86.	3.0	23
218	Coordinating Controllers for Constrained Linear Systems by Virtual State Governors. IEEE Transactions on Automatic Control, 2015, 60, 2177-2182.	3.6	4
219	Cloud aided semi-active suspension control. , 2014, , .		29
220	Constraint enforcement of piston motion in a free-piston engine. , 2014, , .		5
221	Disturbance canceling control based on simple input observers with constraint enforcement for aerospace applications. , 2014, , .		8
222	Reference and command governors for systems with slowly time-varying references and time-dependent constraints. , 2014, , .		7
223	Transition threshold optimization for a rule based automotive cruise control. , 2014, , .		0
224	Cloud aided safety-based route planning. , 2014, , .		19
225	Limit Protection in Gas Turbine Engines Based on Reference and Extended Command Governors. , 2014, , .		5
226	Energy and power management in a series Hybrid Electric Vehicle using Selective Evolutionary Generation. , 2014, , .		1
227	Nonlinear model predictive control strategy for low thrust spacecraft missions. Optimal Control Applications and Methods, 2014, 35, 1-20.	1.3	23
228	Game Theory Controller for Hybrid Electric Vehicles. IEEE Transactions on Control Systems Technology, 2014, 22, 652-663.	3.2	126
229	Stochastic MPC With Learning for Driver-Predictive Vehicle Control and its Application to HEV Energy Management. IEEE Transactions on Control Systems Technology, 2014, 22, 1018-1031.	3.2	345
230	Fast reference governors for second-order linear systems with constraints and an input time-delay. Automatica, 2014, 50, 641-645.	3.0	13
231	Model Predictive Control of Engine Speed During Vehicle Deceleration. IEEE Transactions on Control Systems Technology, 2014, 22, 2205-2217.	3.2	35
232	Reduced order extended command governor. Automatica, 2014, 50, 1466-1472.	3.0	16
233	Model-Based Plant Design and Hierarchical Control of a Prototype Lighter-Than-Air Wind Energy System, With Experimental Flight Test Results. IEEE Transactions on Control Systems Technology, 2014, 22, 531-542.	3.2	63
234	Reference and command governors: A tutorial on their theory and automotive applications. , 2014, , .		105

#	ARTICLE	IF	CITATIONS
235	Generalized Markov Models for Real-Time Modeling of Continuous Systems. IEEE Transactions on Fuzzy Systems, 2014, 22, 983-998.	6.5	54
236	Constrained spacecraft attitude control on SO(3) using reference governors and nonlinear model predictive control. , 2014, , .		21
237	Stable hierarchical model predictive control using an inner loop reference model and $\langle \text{mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" altimg="si32.gif" display="inline" overflow="scroll" \rangle \langle \text{mml:mi} \rangle \hat{\mathbf{b}} \langle \text{mml:mi} \rangle \langle \text{mml:math} \rangle$ -contractive terminal constraint sets. Automatica, 2014, 50, 92-99.	3.0	19
238	Predictor-based reference governor for second-order linear constrained systems operated over a communication network. , 2014, , .		0
239	A tutorial overview of IPA-SQP approach for optimization of constrained nonlinear systems. , 2014, , .		9
240	Stochastic Fuel Efficient Optimal Control of Vehicle Speed. Lecture Notes in Control and Information Sciences, 2014, , 147-162.	0.6	13
241	Inertia-Free Spacecraft Attitude Control Using Reaction Wheels. Journal of Guidance, Control, and Dynamics, 2013, 36, 1425-1439.	1.6	45
242	Horizon-1 Predictive Control of Automotive Electromagnetic Actuators. IEEE Transactions on Control Systems Technology, 2013, 21, 1652-1665.	3.2	3
243	Power Smoothing Energy Management and Its Application to a Series Hybrid Powertrain. IEEE Transactions on Control Systems Technology, 2013, 21, 2091-2103.	3.2	91
244	Evolving Markov chain models of driving conditions using onboard learning. , 2013, , .		5
245	Direct Optimal Design for Component Swapping Modularity in Control Systems. IEEE/ASME Transactions on Mechatronics, 2013, 18, 297-306.	3.7	9
246	Trajectory Control of Very Flexible Aircraft with Gust Disturbance. , 2013, , .		22
247	Constrained inner-loop control of a hypersonic glider using Extended Command Governor. , 2013, , .		3
248	Decentralized constraint enforcement using reference governors. , 2013, , .		4
249	Constrained control of very flexible aircraft using reference and extended command governors. , 2013, , .		6
250	Hypersonic glider guidance using Model Predictive Control. , 2013, , .		4
251	Spacecraft constrained maneuver planning for moving debris avoidance using positively invariant constraint admissible sets. , 2013, , .		4
252	Optimal control of manifold filling during VDE mode transitions. , 2013, , .		3

#	ARTICLE	IF	CITATIONS
253	Adaptive control approach for cylinder balancing in a hydraulic linear engine. , 2013, , .		7
254	Adaptive model predictive control in the IPA-SQP framework. , 2013, , .		0
255	Stochastic dynamic programming control policies for fuel efficient vehicle following. , 2013, , .		21
256	Mission-Based Fault Reconfiguration for Spacecraft Applications. Journal of Aerospace Information Systems, 2013, 10, 513-516.	1.0	1
257	Prioritization schemes for reference and command governors. , 2013, , .		5
258	Reference governor design for computationally efficient attitude and tether tension constraint enforcement on a lighter-than-air wind energy system. , 2013, , .		2
259	Forward-integration Riccati-based output-feedback control of linear time-varying systems. , 2012, , .		15
260	Glider flight environment modeling for optimal control. , 2012, , .		1
261	Further developments and applications of network reference governor for constrained systems. , 2012, , .		8
262	Range maximization of a direct methanol fuel cell powered Mini Air Vehicle using Stochastic Drift Counteraction Optimal Control. , 2012, , .		3
263	Reduced order reference governor. , 2012, , .		20
264	Distributed Supervisory Controller Design for Battery Swapping Modularity in Plug-In Hybrid Electric Vehicles. Journal of Dynamic Systems, Measurement and Control, Transactions of the ASME, 2012, 134, .	0.9	9
265	Developments in Constrained Control Using Reference Governors. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2012, 45, 282-290.	0.4	16
266	Onboard learning-based fuel consumption optimization in series hybrid electric vehicles. , 2012, , .		5
267	Model Predictive Control of three dimensional spacecraft relative motion. , 2012, , .		23
268	Lyapunov-based constrained engine torque control using electronic throttle and variable cam timing. , 2012, , .		5
269	Stochastic dynamic programming control policies for fuel efficient in-traffic driving. , 2012, , .		21
270	Robust Control of Constrained Linear Systems With Bounded Disturbances. IEEE Transactions on Automatic Control, 2012, 57, 2683-2688.	3.6	34

#	ARTICLE	IF	CITATIONS
271	MPC-Based Energy Management of a Power-Split Hybrid Electric Vehicle. IEEE Transactions on Control Systems Technology, 2012, 20, 593-603.	3.2	552
272	Forward-integration Riccati-based feedback control for spacecraft rendezvous maneuvers on elliptic orbits. , 2012, , .		3
273	Model Predictive Control approach for guidance of spacecraft rendezvous and proximity maneuvering. International Journal of Robust and Nonlinear Control, 2012, 22, 1398-1427.	2.1	196
274	Reference and extended command governors for control of turbocharged gasoline engines based on linear models. , 2011, , .		25
275	Modeling of vehicle driving conditions using transition probability models. , 2011, , .		11
276	Robust Control of Linear Systems With Disturbances Bounded in a State Dependent Set. IEEE Transactions on Automatic Control, 2011, 56, 1740-1745.	3.6	4
277	A Conjugate Gradient-Based BPTT-Like Optimal Control Algorithm With Vehicle Dynamics Control Application. IEEE Transactions on Control Systems Technology, 2011, 19, 1587-1595.	3.2	33
278	Estimation of fuel flow for telematics-enabled adaptive fuel and time efficient vehicle routing. , 2011, , .		6
279	Model Predictive Idle Speed Control: Design, Analysis, and Experimental Evaluation. IEEE Transactions on Control Systems Technology, 2011, , .	3.2	68
280	Spark-Ignition-Engine Idle Speed Control: An Adaptive Control Approach. IEEE Transactions on Control Systems Technology, 2011, 19, 990-1002.	3.2	49
281	A stochastic drift counteraction optimal control approach to glider flight management. , 2011, , .		5
282	Constrained actuator coordination by virtual state governing. , 2011, , .		7
283	A control allocation system for automatic detection and compensation of phase shift due to actuator rate limiting. , 2011, , .		17
284	Reference governors for linear systems with nonlinear constraints. , 2011, , .		4
285	Battery swapping modularity design for plug-in HEVs using the augmented lagrangian decomposition method. , 2011, , .		2
286	Model predictive control for spacecraft rendezvous and docking with a rotating/tumbling platform and for debris avoidance. , 2011, , .		12
287	Adaptive posicast controller for time-delay systems with relative degree n . Automatica, 2010, 46, 279-289.	3.0	84
288	Spark ignition engine fuel-to-air ratio control: An adaptive control approach. Control Engineering Practice, 2010, 18, 1369-1378.	3.2	75

#	ARTICLE	IF	CITATIONS
289	Markov chain modeling approaches for on board applications. , 2010, , .		24
290	Constrained control using error governors with online parameter estimation. , 2010, , .		6
291	A control allocation technique to recover from pilot-induced oscillations (capio) due to actuator rate limiting. , 2010, , .		24
292	A generalized Markov Chain modeling approach for on board applications. , 2010, , .		12
293	From vehicle stability control to intelligent personal minder: Real-time vehicle handling limit warning and driver style characterization. , 2009, , .		28
294	Optimally controlling Hybrid Electric Vehicles using path forecasting. , 2009, , .		47
295	Throttle actuator swapping modularity design for idle speed control. , 2009, , .		6
296	Path dependent receding horizon control policies for Hybrid Electric Vehicles. , 2009, , .		12
297	An integrated perturbation analysis and Sequential Quadratic Programming approach for Model Predictive Control. Automatica, 2009, 45, 2412-2418.	3.0	59
298	Value Iteration for (Switched) Homogeneous Systems. IEEE Transactions on Automatic Control, 2009, 54, 1290-1294.	3.6	21
299	Neighboring Extremal Solution for Nonlinear Discrete-Time Optimal Control Problems With State Inequality Constraints. IEEE Transactions on Automatic Control, 2009, 54, 2674-2679.	3.6	25
300	A Dynamic Semi-Analytic Channel-to-Channel Model of Two-Phase Water Distribution for a Unit Fuel Cell. IEEE Transactions on Control Systems Technology, 2009, 17, 1055-1068.	3.2	7
301	On the dynamics and control of through-plane water distributions in PEM fuel cells. Chemical Engineering Science, 2008, 63, 4418-4432.	1.9	21
302	Ultracapacitor assisted powertrains: Modeling, control, sizing, and the impact on fuel economy. , 2008, , .		21
303	Automotive Powertrain Control Problems Involving Time Delay: An Adaptive Control Approach. , 2008, , .		8
304	Suboptimal Control of Switched Systems With an Application to the DISC Engine. IEEE Transactions on Control Systems Technology, 2008, 16, 189-201.	3.2	59
305	Constraint Handling in a Fuel Cell System: A Fast Reference Governor Approach. IEEE Transactions on Control Systems Technology, 2007, 15, 86-98.	3.2	75
306	Optimal Control of Switched Homogeneous Systems. Proceedings of the American Control Conference, 2007, , .	0.0	3

#	ARTICLE	IF	CITATIONS
307	Editorial: Special Issue on Control Applications in Automotive Engineering. IEEE Transactions on Control Systems Technology, 2007, 15, 403-405.	3.2	3
308	On-line identification of SISO linear time-invariant delay systems from output measurements. Automatica, 2007, 43, 2060-2069.	3.0	53
309	A stable block model predictive control with variable implementation horizon. Automatica, 2007, 43, 1945-1953.	3.0	26
310	Parameter governors for discrete-time nonlinear systems with pointwise-in-time state and control constraints. Automatica, 2006, 42, 841-848.	3.0	35
311	A receding horizon optimal control approach to active state and parameter estimation in automotive systems. , 2006, , .		3
312	Source Identification for Parabolic Equations. Mathematics of Control, Signals, and Systems, 2003, 16, 141-157.	1.4	14
313	Boosted Gasoline Direct Injection Engines: Comparison of Throttle and VGT Controllers for Homogeneous Charge Operation. , 2002, , .		12
314	Application of input estimation techniques to charge estimation and control in automotive engines. Control Engineering Practice, 2002, 10, 1371-1383.	3.2	138
315	Nonlinear tracking control in the presence of state and control constraints: a generalized reference governor. Automatica, 2002, 38, 2063-2073.	3.0	335
316	MEAN-SQUARE STABILITY OF NONLINEAR SYSTEMS WITH TIME-VARYING, RANDOM DELAY. Stochastic Analysis and Applications, 2001, 19, 279-293.	0.9	19
317	Fast reference governors for systems with state and control constraints and disturbance inputs. International Journal of Robust and Nonlinear Control, 1999, 9, 1117-1141.	2.1	225
318	Hybrid feedback stabilization of rotational-translational actuator (RTAC) system. International Journal of Robust and Nonlinear Control, 1998, 8, 367-375.	2.1	10
319	Theory and computation of disturbance invariant sets for discrete-time linear systems. Mathematical Problems in Engineering, 1998, 4, 317-367.	0.6	666
320	Switched mode feedback control laws for nonholonomic systems in extended power form. Systems and Control Letters, 1996, 27, 29-36.	1.3	56
321	Stabilizing feedback laws for internally actuated multibody systems in space. Nonlinear Analysis: Theory, Methods & Applications, 1996, 26, 1461-1479.	0.6	2
322	Best interpolation in a strip II: Reduction to unconstrained convex optimization. Computational Optimization and Applications, 1996, 5, 233-251.	0.9	11
323	Discrete-time reference governors and the nonlinear control of systems with state and control constraints. International Journal of Robust and Nonlinear Control, 1995, 5, 487-504.	2.1	331
324	Efficient Reorientation of a Deformable Body in Space: A Free-Free Beam Example. , 1993, , .		3

#	ARTICLE	IF	CITATIONS
325	Turbocharger Modeling for Automotive Control Applications. , 0, , .		187
326	An Adaptive Proportional Integral Control of a Urea Selective Catalytic Reduction System based on System Identification Models. SAE International Journal of Fuels and Lubricants, 0, 3, 625-642.	0.2	15
327	Design Environment for Nonlinear Model Predictive Control. , 0, , .		5
328	Vehicle Velocity Prediction and Energy Management Strategy Part 1: Deterministic and Stochastic Vehicle Velocity Prediction Using Machine Learning. , 0, , .		54
329	Constrained data smoothing via optimal control. Optimal Control Applications and Methods, 0, , .	1.3	1