Eric Feron

List of Publications by Year
in descending order

96 papers	17,409 citations	430874 18 h-index	330143 37 g-index
99 all docs	99 docs citations	99 times ranked	7110 citing authors

#	Article	IF	Citations
1	Real-Time Motion Planning for Agile Autonomous Vehicles. Journal of Guidance, Control, and Dynamics, 2002, 25, 116-129.	2.8	602
2	Mixed integer programming for multi-vehicle path planning. , 2001, , .		301
3	On the Dubins Traveling Salesman Problem. IEEE Transactions on Automatic Control, 2012, 57, 265-270.	5.7	104
4	Detection of Driver Fatigue Caused by Sleep Deprivation. IEEE Transactions on Systems, Man and Cybernetics, Part A: Systems and Humans, 2009, 39, 694-705.	2.9	86
5	Towards a Framework for Realizable Safety Critical Control through Active Set Invariance. , 2018, , .		71
6	Adaptive control architectures for mitigating sensor attacks in cyber-physical systems. Cyber-Physical Systems, 2016, 2, 24-52.	2.0	66
7	Impact of Covid-19 on passengers and airlines from passenger measurements: Managing customer satisfaction while putting the US Air Transportation System to sleep. Transportation Research Interdisciplinary Perspectives, 2020, 7, 100179.	2.7	56
8	An Online Approach to Active Set Invariance. , 2018, , .		48
9	Gate Assignment to Minimize Passenger Transit Time and Aircraft Taxi Time. Journal of Guidance, Control, and Dynamics, 2013, 36, 467-475.	2.8	47
10	From Control Systems to Control Software. IEEE Control Systems, 2010, 30, 50-71.	0.8	44
11	Multi-UAV dynamic routing with partial observations using restless bandit allocation indices. , 2008, , .		37
12	A Scalable Safety Critical Control Framework for Nonlinear Systems. IEEE Access, 2020, 8, 187249-187275.	4.2	37
13	Stability of Intersecting Aircraft Flows Using Heading-Change Maneuvers for Conflict Avoidance. IEEE Transactions on Intelligent Transportation Systems, 2005, 6, 357-369.	8.0	32
14	Gain Scheduled Control of Gas Turbine Engines: Stability and Verification. Journal of Engineering for Gas Turbines and Power, 2014, 136, .	1.1	32
15	Preventing Automotive Pileup Crashes in Mixed-Communication Environments. IEEE Transactions on Intelligent Transportation Systems, 2009, 10, 211-225.	8.0	31
16	Space Partition for Conflict Resolution of Intersecting Flows of Mobile Agents. IEEE Transactions on Intelligent Transportation Systems, 2007, 8, 512-527.	8.0	30
17	Scheduling Continuous-Time Kalman Filters. IEEE Transactions on Automatic Control, 2011, 56, 1381-1394.	5.7	28
18	Linear Programming and Language Processing for Human-Unmanned Aerial-Vehicle Team Missions. Journal of Guidance, Control, and Dynamics, 2006, 29, 303-313.	2.8	27

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19	Data-Based Modeling and Optimization of En Route Traffic. Journal of Guidance, Control, and Dynamics, 2014, 37, 1930-1945.	2.8	27
20	Air Traffic Complexity: An Input-Output Approach. Proceedings of the American Control Conference, 2007, , .	0.0	24
21	Aircraft atypical approach detection using functional principal component analysis. Journal of Air Transport Management, 2020, 84, 101787.	4.5	22
22	Multivehicle path planning for nonline-of-sight communication. Journal of Field Robotics, 2006, 23, 269-290.	6.0	18
23	Graceful Degradation of Air Traffic Operations: Airspace Sensitivity to Degraded Surveillance Systems. Proceedings of the IEEE, 2008, 96, 2028-2039.	21.3	18
24	Multi-Agent Task Assignment in the Bandit Framework. , 2006, , .		14
25	Optimization of Lyapunov Invariants in Verification of Software Systems. IEEE Transactions on Automatic Control, 2013, 58, 696-711.	5.7	14
26	A control Lyapunov function approach to robust stabilization of nonlinear systems. , 1997, , .		13
27	A Scalable Controlled Set Invariance Framework with Practical Safety Guarantees. , 2019, , .		13
28	Influence of Aircraft Maneuver Preference Variability on Airspace Usage. IEEE Transactions on Intelligent Transportation Systems, 2011, 12, 1446-1461.	8.0	12
29	Estimating the conservatism of Popov's criterion for real parametric uncertainties. Systems and Control Letters, 1997, 31, 173-183.	2.3	10
30	Continuous path planning for a data harvesting mobile server. , 2008, , .		10
31	Interval Observers for Secure Estimation in Cyber-Physical Systems. , 2018, , .		10
32	Validating Feedback Control to Meet Stiffness Requirements in Additive Manufacturing. IEEE Transactions on Control Systems Technology, 2020, 28, 2053-2060.	5.2	10
33	Reliably Creating Collision Avoidance Advisories in Piloted Simulations. IEEE Transactions on Human-Machine Systems, 2013, 43, 416-420.	3.5	8
34	3D Printing of a Leaf Spring: A Demonstration of Closed-Loop Control in Additive Manufacturing. , 2018, , .		8
35	Multi-agent systems to help managing air traffic structure. Journal of Aerospace Operations, 2018, 5, 119-148.	0.1	8
36	Triple-Integral Control for Reduced-G Atmospheric Flight. , 2018, , .		8

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37	Modeling and Experimental Validation of a Fractal Tetrahedron UAS Assembly. , 2020, , .		8
38	Flight safety during Covid-19: A study of Charles de Gaulle airport atypical energy approaches. Transportation Research Interdisciplinary Perspectives, 2021, 9, 100327.	2.7	8
39	Natural Motion-based Trajectories for Automatic Spacecraft Collision Avoidance During Proximity Operations. , 2021, , .		8
40	An Accelerated Dual Fast Marching Tree Applied to Emergency Geometric Trajectory Generation. Aerospace, 2022, 9, 180.	2.2	8
41	Implementing and Validating Air Passenger–Centric Metrics Using Mobile Phone Data. Journal of Aerospace Information Systems, 2019, 16, 132-147.	1.4	7
42	Formal Specification and Analysis of Spacecraft Collision Avoidance Run Time Assurance Requirements. , 2021, , .		7
43	Scheduling Kalman filters in continuous time. , 2009, , .		6
44	Traffic complexity of intersecting flows of aircraft under variations of pilot preferences in maneuver choice. , 2010, , .		6
45	Obstacle-Sensitive Trajectory Regulation via Gain Scheduling and Semidefinite Programming. IEEE Transactions on Control Systems Technology, 2012, 20, 1107-1115.	5.2	6
46	Multi-agent systems for air traffic conflicts resolution by local speed regulation and departure delay. , 2016, , .		6
47	Approach and Landing Aircraft On-Board Parameters Estimation with LSTM Networks. , 2020, , .		6
48	Developing proof carrying code to formally assure termination in fault tolerant distributed controls systems. , 2012, , .		5
49	Using reconfigurable multi-core architectures for safety-critical embedded systems. , 2016, , .		5
50	Monitor-Based Runtime Assurance for Temporal Logic Specifications. , 2019, , .		5
51	Verification and runtime assurance for dynamical systems with uncertainty. , 2021, , .		5
52	Experimental Allocation of Safety-Critical Applications on Reconfigurable Multi-Core Architecture. , 2018, , .		4
53	Wake Interactions Of A Tetrahedron Quadcopter. , 2020, , .		4
54	Automatic Updates of Transition Potential Matrices in Dempster-Shafer Networks Based on Evidence Inputs. Sensors, 2020, 20, 3727.	3.8	4

#	ARTICLE	IF	CITATIONS
55	Ariadne: A common-sense thread for enabling provable safety in air mobility systems with unreliable components. , 2022, , .		4
56	Safety Verification of Iterative Algorithms over Polynomial Vector Fields. , 2006, , .		3
57	Task allocation of safety-critical applications on reconfigurable multi-core architectures. , 2017, , .		3
58	Formal Verification of System States for Spacecraft Automatic Maneuvering. , 2019, , .		3
59	Risk-Based Formal Requirement Elicitation for Automatic Spacecraft Maneuvering. , 2021, , .		3
60	Avionics of Aerial Robots. Current Robotics Reports, 2021, 2, 113-124.	7.9	3
61	A parameter-dependent Lyapunov approach for the control of nonstationary and hybrid LPV systems. , 2009, , .		2
62	Determining bounds on controller workload rates at an intersection. , 2010, , .		2
63	Optimal navigation policy for an autonomous agent operating in adversarial environments. , 2016, , .		2
64	Passenger-Centric Metrics for Air Transportation Leveraging Mobile Phone and Twitter Data. , 2018, , .		2
65	Task Allocation of Safety-Critical Applications on Reconfigurable Multi-Core Architectures with an Application on Control of Propulsion System. , 2019, , .		2
66	Test platform for autopilot system embedded in a model of multi-core architecture using X-Plane flight simulator. , 2019, , .		2
67	Bounding the State Covariance Matrix for Switched Linear Systems with Noise. , 2020, , .		2
68	Lyapunov Differential Equation Hierarchy and Polynomial Lyapunov Functions for Switched Linear Systems. , 2020, , .		2
69	An Assessment of Unmanned Aircraft System Operations with the Extensible Trajectory Optimization Library. , 2021, , .		2
70	Lyapunov Differential Equation Hierarchy and Polynomial Lyapunov Functions for Switched Implicit Systems. , 2021, , .		2
71	Unmanned Systems Health Analysis through Evidential Reasoning Networks. , 2020, , .		2
72	Towards a Taxonomy for Automatic and Autonomous Cooperative Spacecraft Maneuvering in a Space Traffic Management Framework. , 2020, , .		2

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73	Design of Avionics Network Architecture Under a Reliability Constraint. IEEE Transactions on Aerospace and Electronic Systems, 2022, 58, 2327-2338.	4.7	2
74	Coordination and Path Planning of Cooperative UAVs in RF Localization and Relay Network. , 2020, , .		2
75	Deconfliction and Escape Considerations for Commercial Aircraft Formations. , 2022, , .		2
76	Optimal Fixed-Point Implementation of Digital Filters. , 2007, , .		1
77	Maximizing throughput at an intersection under constrained maneuvers. , 2010, , .		1
78	Stability of spatially distributed, intersecting aircraft flows under sequential conflict resolution schemes. , 2011, , .		1
79	Bounds on Controller Taskload Rates at an Intersection for Dense Traffic. , 2011, , .		1
80	Trajectory Control of a Swashplate-less Coaxial Helicopter Using Nonlinear Techniques. , 2019, , .		1
81	Doorway to the United States: An Exploration of Customs and Border Protection Data. , 2019, , .		1
82	Decentralized Task Reallocation on Parallel Computing Architectures Targeting an Avionics Application. Journal of Optimization Theory and Applications, 2021, 191, 874.	1.5	1
83	Pointwise-in-Time Analysis and Non-Quadratic Lyapunov Functions for Linear Time-Varying Systems. , 2021, , .		1
84	A priority-driven optimal guidance approach to moving target tracking for safe navigation in a narrow space. International Journal of Systems Science, 2022, 53, 138-153.	5.5	1
85	A Systems Engineering Approach to the Design and Education of a Robotic Baby. Incose International Symposium, 2021, 31, 327-342.	0.6	1
86	Application of Dempster–Shafer Networks to a Real-Time Unmanned Systems Risk Analysis Framework. Journal of Aerospace Information Systems, 2021, 18, 616-631.	1.4	1
87	Intent-Aware Optimal Collision Avoidance and Trajectory Planning for a Pursuit Vehicle. Robotica, 2022, 40, 2505-2526.	1.9	1
88	A Year Into the Pandemic: a Passenger Perspective on its Impact at Paris-Charles de Gaulle Airport. , 2021, , .		1
89	Impact of gate assignment on gate-holding departure control strategies. , 2012, , .		0
90	Evaluation of new enroute performance measures for air navigation service providers. , 2016, , .		0

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91	Credible Autocoding of The Ellipsoid Algorithm Solving Second-Order Cone Programs. , 2018, , .		0
92	Memory-loss resilient controller design for temporal logic constraints. Cyber-Physical Systems, 2020, , 1-22.	2.0	0
93	Door-to-Door Air Travel Time Analysis in the United States using Uber Data. , 2020, , .		0
94	A Numerical Method to Compute Stability Margins of Switching Linear Systems. , 2021, , .		0
95	A High-Performance Computing Process for Urban Air Mobility Simulations. , 2021, , .		0
96	Scheduling for Offloading Safety-Critical Applications Within Networked Groups of Vehicles. , 2020, , .		0