Thomas Lombaerts

List of Publications by Year
in descending order

46 papers	813 citations	759055 12 h-index	887953 17 g-index
47 all docs	47 docs citations	47 times ranked	250 citing authors

#	Article	IF	Citations
1	Adaptive Multi-Sensor Fusion Based Object Tracking for Autonomous Urban Air Mobility Operations. , 2022, , .		10
2	Estimation With Range Depended Sensor Model. , 2022, , .		2
3	Ground to air testing of a fused optical-radar aircraft detection and tracking system. , 2022, , .		8
4	Survey of Capabilities and Gaps in External Perception Sensors for Autonomous Urban Air Mobility Applications. , 2021, , .		12
5	Adaptive Multi-Sensor Information Fusion For Autonomous Urban Air Mobility Operations. , 2021, , .		0
6	Dynamic Inversion based Full Envelope Flight Control for an eVTOL Vehicle using a Unified Framework. , 2020, , .		30
7	A Modeling Approach for Handling Qualities and Controls Safety Analysis of Electric Air Taxi Vehicles. , 2020, , .		10
8	Control Concepts for Simplified Vehicle Operations of a Quadrotor eVTOL Vehicle. , 2020, , .		18
9	Evaluation of Technology Concepts for Energy, Automation, and System State Awareness in Commercial Airline Flight Decks. , 2019, , .		8
10	Nonlinear Dynamic Inversion Based Attitude Control for a hovering quad tiltrotor eVTOL vehicle. , 2019, , .		30
11	Design and Piloted Simulator Evaluation Results of Model Independent Stall Recovery Guidance. , 2019, , .		7
12	Piloted Simulation Study Findings On Stall Recovery Guidance. , 2019, , .		9
13	Effects of Structural Failure on the Safe Flight Envelope of Aircraft. Journal of Guidance, Control, and Dynamics, 2018, 41, 1257-1275.	1.6	39
14	Piloted Simulator Evaluation Results of Flight Physics Based Stall Recovery Guidance. , 2018, , .		6
15	Proof of concept simulator demonstration of a physics based self-preserving flight envelope protection algorithm. Engineering Applications of Artificial Intelligence, 2018, 67, 368-380.	4.3	13
16	Piloted Simulator Evaluation of Safe Flight Envelope Display Indicators for Loss of Control Avoidance. Journal of Guidance, Control, and Dynamics, 2017, 40, 948-963.	1.6	24
17	Stall Recovery Guidance Using Fast Model Predictive Control. , 2017, , .		11
18	Stall Recovery Guidance Using an Energy Based Algorithm. , 2017, , .		10

#	Article	IF	Citations
19	Design and Piloted Simulator Evaluation of Adaptive Safe Flight Envelope Protection Algorithm. Journal of Guidance, Control, and Dynamics, 2017, 40, 1902-1924.	1.6	23
20	Aircraft Mode and Energy-State Prediction, Assessment, and Alerting. Journal of Guidance, Control, and Dynamics, 2017, 40, 804-816.	1.6	8
21	Autonomous Flight Envelope Estimation for Loss-of-Control Prevention. Journal of Guidance, Control, and Dynamics, 2017, 40, 847-862.	1.6	28
22	Intelligent Flight Control Systems Evaluation for Loss-of-Control Recovery and Prevention. Journal of Guidance, Control, and Dynamics, 2017, 40, 890-904.	1.6	14
23	Development and Concept Demonstration of a Physics Based Adaptive Flight Envelope Protection Algorithm**This work was supported by a Marie Curie International Outgoing Fellowship (IOF) and the ACROSS project (advanced cockpit for the reduction of stress and workload) within the 7th European Community Framework Program.. IFAC-PapersOnLine, 2016, 49, 248-253.	0.5	4
24	Design and Piloted Simulator Evaluation of Adaptive Safe Flight Envelope Protection Algorithm. , 2016, , .		14
25	Trajectory Prediction and Alerting for Aircraft Mode and Energy State Awareness. , 2015, , .		13
26	Piloted Simulator Evaluation of Maneuvering Envelope Information for Flight Crew Awareness. , 2015, , .		23
27	On-Line Safe Flight Envelope Determination for Impaired Aircraft. , 2015, , 263-282.		12
28	An Adaptive Nonlinear Aircraft Maneuvering Envelope Estimation Approach for Online Applications. , 2014, , .		26
29	Robust maneuvering envelope estimation based on reachability analysis in an optimal control formulation. , 2013, , .		11
30	Safe Maneuvering Envelope Estimation based on a Physical Approach. , 2013, , .		35
31	Design and simulation of fault tolerant flight control based on a physical approach. Aerospace Science and Technology, 2012, 23, 151-171.	2.5	25
32	Modular flight control reconfiguration design and simulation. Control Engineering Practice, 2011, 19, 540-554.	3.2	25
33	Design and flight testing of manual nonlinear flight control laws. , 2011, , .		11
34	Adaptive Nonlinear Flight Control and Control Allocation for Failure Resilience. , 2011, , 41-53.		5
35	Real-Time Assessment and Piloted Evaluation of Fault Tolerant Flight Control Designs in the SIMONA Research Flight Simulator. Lecture Notes in Control and Information Sciences, 2010, , 451-475.	0.6	1
36	Online Aerodynamic Model Structure Selection and Parameter Estimation for Fault Tolerant Control. Journal of Guidance, Control, and Dynamics, 2010, 33, 707-723.	1.6	63

#	ARTICLE	IF	CITATIONS
37	Pseudo Control Hedging and its Application for Safe Flight Envelope Protection. , 2010, , .		23
38	RECOVER: A Benchmark for Integrated Fault Tolerant Flight Control Evaluation. Lecture Notes in Control and Information Sciences, 2010, , 171-221.	0.6	15
39	Flight Control Reconfiguration Based on Online Physical Model Identification and Nonlinear Dynamic Inversion. Lecture Notes in Control and Information Sciences, 2010, , 363-397.	0.6	7
40	Piloted Simulator Evaluation Results of New Fault-Tolerant Flight Control Algorithm. , 2010, , .		2
41	Assessment Criteria as Specifications for Reconfiguring Flight Control. Lecture Notes in Control and Information Sciences, 2010, , 223-243.	0.6	0
42	Piloted Evaluation Results of a Nonlinear Dynamic Inversion Based Controller Using Online Physical Model Identification. Lecture Notes in Control and Information Sciences, 2010, , 477-499.	0.6	0
43	Nonlinear Reconfiguring Flight Control Based on Online Physical Model Identification. Journal of Guidance, Control, and Dynamics, 2009, 32, 727-748.	1.6	76
44	Piloted Simulator Evaluation Results of New Fault-Tolerant Flight Control Algorithm. Journal of Guidance, Control, and Dynamics, 2009, 32, 1747-1765.	1.6	44
45	Computationally Efficient Use of MPC and Dynamic Inversion for Reconfigurable Flight Control. , 2008, , .		11
46	A Simulation Benchmark for Integrated Fault Tolerant Flight Control Evaluation. , 2006, , .		43