

Ella M Atkins

List of Publications by Year in Descending Order

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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.

109
papers

3,865
citations

17
h-index

61
g-index

119
ext. papers

4,906
ext. citations

2.8
avg, IF

5.9
L-index

#	Paper	IF	Citations
109	Airspace Geofencing and Flight Planning for Low-Altitude, Urban, Small Unmanned Aircraft Systems. <i>Applied Sciences (Switzerland)</i> , 2022 , 12, 576	2.6	6
108	Automated Curb Recognition and Negotiation for Robotic Wheelchairs. <i>Sensors</i> , 2021 , 21,	3.8	3
107	BiTraP: Bi-Directional Pedestrian Trajectory Prediction With Multi-Modal Goal Estimation. <i>IEEE Robotics and Automation Letters</i> , 2021 , 6, 1463-1470	4.2	14
106	Multi-Unmanned-Aerial-Vehicle Wildfire Boundary Estimation Using a Semantic Segmentation Neural Network. <i>Journal of Aerospace Information Systems</i> , 2021 , 18, 231-249	1	
105	Development, implementation, and experimental outdoor evaluation of quadcopter controllers for computationally limited embedded systems. <i>Annual Reviews in Control</i> , 2021 , 52, 372-372	10.3	4
104	The Smart Black Box: A Value-Driven High-Bandwidth Automotive Event Data Recorder. <i>IEEE Transactions on Intelligent Transportation Systems</i> , 2021 , 22, 1484-1496	6.1	5
103	Scalable Vehicle Team Continuum Deformation Coordination with Eigen Decomposition. <i>IEEE Transactions on Automatic Control</i> , 2021 , 1-1	5.9	1
102	Smart Black Box 2.0: Efficient High-Bandwidth Driving Data Collection Based on Video Anomalies. <i>Algorithms</i> , 2021 , 14, 57	1.8	1
101	A Mass-Conservation Model for Stability Analysis and Finite-Time Estimation of Spread of COVID-19. <i>IEEE Transactions on Computational Social Systems</i> , 2021 , 8, 930-937	4.5	1
100	Statistical Properties and Airspace Capacity for Unmanned Aerial Vehicle Networks Subject to Sense-and-Avoid Safety Protocols. <i>IEEE Transactions on Intelligent Transportation Systems</i> , 2021 , 22, 5890-5903 ¹	6.1	1
99	Geofence Definition and Deconfliction for UAS Traffic Management. <i>IEEE Transactions on Intelligent Transportation Systems</i> , 2021 , 22, 5880-5889	6.1	2
98	Improving Attitude Estimation Using Gaussian-Process-Regression-Based Magnetic Field Maps. <i>Sensors</i> , 2021 , 21,	3.8	2
97	Generating Airspace Geofence Boundary Layers in Wind. <i>Journal of Aerospace Information Systems</i> , 2020 , 17, 113-124	1	2
96	Physics-Based Freely Scalable Continuum Deformation for UAS Traffic Coordination. <i>IEEE Transactions on Control of Network Systems</i> , 2020 , 7, 532-544	4	2
95	Polylidar - Polygons From Triangular Meshes. <i>IEEE Robotics and Automation Letters</i> , 2020 , 5, 4634-4641	4.2	3
94	Game-Theoretic Modeling of Multi-Vehicle Interactions at Uncontrolled Intersections. <i>IEEE Transactions on Intelligent Transportation Systems</i> , 2020 , 1-15	6.1	10
93	Polylidar3D-Fast Polygon Extraction from 3D Data. <i>Sensors</i> , 2020 , 20,	3.8	1

92	Robust Science-Optimal Spacecraft Control for Circular Orbit Missions. <i>IEEE Transactions on Systems, Man, and Cybernetics: Systems</i> , 2020 , 50, 923-934	7.3	7
91	Safe Multiquadcopter System Continuum Deformation Over Moving Frames. <i>IEEE Transactions on Control of Network Systems</i> , 2019 , 6, 737-749	4	3
90	Egocentric Vision-based Future Vehicle Localization for Intelligent Driving Assistance Systems 2019 ,		20
89	Safe multi-cluster UAV continuum deformation coordination. <i>Aerospace Science and Technology</i> , 2019 , 91, 640-655	4.9	5
88	Cooperative Aerial Payload Transport Guided by an In Situ Human Supervisor. <i>IEEE Transactions on Control Systems Technology</i> , 2019 , 27, 1452-1467	4.8	2
87	Experimental Investigation of Tractor and Pusher Hexacopter Performance. <i>Journal of Aircraft</i> , 2019 , 56, 1920-1934	1.6	5
86	2019 ,		3
85	Unsupervised Traffic Accident Detection in First-Person Videos 2019 ,		38
84	Formal Specification of Continuum Deformation Coordination 2019 ,		1
83	Paths to Autonomous Vehicle Operations for Urban Air Mobility 2019 ,		4
82	Geofence Boundary Violation Detection in 3D Using Triangle Weight Characterization with Adjacency. <i>Journal of Intelligent and Robotic Systems: Theory and Applications</i> , 2019 , 95, 239-250	2.9	9
81	Geofencing in Immediate Reaches Airspace for Unmanned Aircraft System Traffic Management 2018 ,		10
80	Asymptotic Tracking and Robustness of MAS Transitions Under a New Communication Topology. <i>IEEE Transactions on Automation Science and Engineering</i> , 2018 , 15, 16-32	4.9	6
79	Automatic Classification of Roof Shapes for Multicopter Emergency Landing Site Selection 2018 ,		2
78	Multi-Objective Weight Optimization for Trajectory Planning of an Airplane with Structural Damage. <i>Journal of Intelligent and Robotic Systems: Theory and Applications</i> , 2018 , 91, 667-690	2.9	11
77	Shaping low-thrust trajectories with thrust-handling feature. <i>Advances in Space Research</i> , 2018 , 61, 879-890		23
76	The Smart Black Box: A Value-Driven Automotive Event Data Recorder 2018 ,		3
75	Roof Shape Classification from LiDAR and Satellite Image Data Fusion Using Supervised Learning. <i>Sensors</i> , 2018 , 18,	3.8	27

74	A Data-Driven Approach for Autonomous Motion Planning and Control in Off-Road Driving Scenarios 2018 ,		1
73	Continuum Deformation of a Multiple Quadcopter Payload Delivery Team without Inter-Agent Communication 2018 ,		2
72	Cooperative aerial lift and manipulation (CALM). <i>Aerospace Science and Technology</i> , 2018 , 82-83, 105-118.	4.9	13
71	Comprehensive Risk-based Planning for Small Unmanned Aircraft System Rooftop Landing 2018 ,		5
70	Layered Geofences in Complex Airspace Environments 2018 ,		6
69	Emergency Flight Planning for an Energy-Constrained Multicopter. <i>Journal of Intelligent and Robotic Systems: Theory and Applications</i> , 2017 , 85, 145-165	2.9	18
68	Fail-Safe Navigation for Autonomous Urban Multicopter Flight 2017 ,		7
67	A graph-theoretic-based method for analyzing conduction problems. <i>Journal of Engineering Mathematics</i> , 2017 , 106, 169-201		1.2
66	Evaluating Risk to People and Property for Aircraft Emergency Landing Planning. <i>Journal of Aerospace Information Systems</i> , 2017 , 14, 259-278	1	17
65	Continuum Deformation of Multi-Agent Systems Under Directed Communication Topologies. <i>Journal of Dynamic Systems, Measurement and Control, Transactions of the ASME</i> , 2017 , 139,	1.6	8
64	Energy-Aware Multiflight Planning for an Unattended Seaplane: Flying Fish. <i>Journal of Aerospace Information Systems</i> , 2017 , 14, 73-91	1	1
63	Optimal State Estimation for Systems Driven by JumpDiffusion Process With Application to Road Anomaly Detection. <i>IEEE Transactions on Control Systems Technology</i> , 2017 , 25, 1634-1643	4.8	6
62	Envelope-Aware Flight Management for Loss of Control Prevention Given Rudder Jam. <i>Journal of Guidance, Control, and Dynamics</i> , 2017 , 40, 1027-1041	2.1	8
61	Markov Decision Process Framework for Flight Safety Assessment and Management. <i>Journal of Guidance, Control, and Dynamics</i> , 2017 , 40, 817-830	2.1	3
60	A New Clustering Algorithm for Processing GPS-Based Road Anomaly Reports With a Mahalanobis Distance. <i>IEEE Transactions on Intelligent Transportation Systems</i> , 2017 , 18, 1980-1988	6.1	21
59	Continuum Deformation of a Multi-Quadcopter System in a Payload Delivery Mission. <i>IFAC-PapersOnLine</i> , 2017 , 50, 3455-3462	0.7	3
58	H-infinity Filtering for Cloud-Aided Semi-active Suspension with Delayed Information. <i>Advances in Delays and Dynamics</i> , 2017 , 283-297	0.3	1
57	Optimizing Steady Turns for Gliding Trajectories. <i>Journal of Guidance, Control, and Dynamics</i> , 2016 , 39, 2627-2637	2.1	2

56	Low-Altitude Rural to Urban Unmanned Aircraft System Operations 2016 , 1-13		2
55	Simultaneous road profile estimation and anomaly detection with an input observer and a jump diffusion process estimator 2016 ,		9
54	Multi-Mode Guidance for an Independent Multicopter Geofencing System 2016 ,		14
53	Exploring Non-Aviation Information Sources for Aircraft Emergency Landing Planning 2016 ,		5
52	Unmanned Aircraft System Navigation in the Urban Environment: A Systems Analysis. <i>Journal of Aerospace Information Systems</i> , 2016 , 13, 143-160	1	10
51	Nonlinear control of semi-active suspension systems: A Quasi-Linear Control approach 2016 ,		2
50	Enhanced Smoothing Technique for Indirect Optimization of Minimum-Fuel Low-Thrust Trajectories. <i>Journal of Guidance, Control, and Dynamics</i> , 2016 , 39, 2500-2511	2.1	50
49	Verification Guided Refinement of Flight Safety Assessment and Management System for Takeoff. <i>Journal of Aerospace Information Systems</i> , 2016 , 13, 357-369	1	6
48	Human Intent Prediction Using Markov Decision Processes. <i>Journal of Aerospace Information Systems</i> , 2015 , 12, 393-397	1	21
47	Fixed-Wing Unmanned Aircraft In-Flight Pitch and Yaw Control Moment Sensing. <i>Journal of Aircraft</i> , 2015 , 52, 403-420	1.6	5
46	Coupled CyberPhysical System Modeling and Coregulation of a CubeSat. <i>IEEE Transactions on Robotics</i> , 2015 , 31, 443-456	6.5	24
45	HIFiltering for Cloud-Aided Semi-active Suspension with Delayed Road Information. <i>IFAC-PapersOnLine</i> , 2015 , 48, 275-280	0.7	13
44	Flight Safety Assessment and Management for Takeoff Using Deterministic Moore Machines. <i>Journal of Aerospace Information Systems</i> , 2015 , 12, 599-615	1	6
43	Optimization and Control of Cyber-Physical Vehicle Systems. <i>Sensors</i> , 2015 , 15, 23020-49	3.8	56
42	Robust H _∞ control for a class of networked uncertain systems with multiple channels subject to Markovian switching 2015 ,		4
41	Road anomaly estimation: Model based pothole detection 2015 ,		12
40	Trim State Discovery with Physical Constraints. <i>Journal of Aircraft</i> , 2015 , 52, 90-106	1.6	6
39	Scaling of Airplane Dynamic Response to Stochastic Gusts. <i>Journal of Aircraft</i> , 2014 , 51, 1554-1566	1.6	4

38	Human Productivity in a Workspace Shared with a Safe Robotic Manipulator. <i>Journal of Aerospace Information Systems</i> , 2014 , 11, 1-18	1	4
37	Education in the Crosscutting Sciences of Aerospace and Computing. <i>Journal of Aerospace Information Systems</i> , 2014 , 11, 726-737	1	3
36	CyberPhysical Optimization for Unmanned Aircraft Systems. <i>Journal of Aerospace Information Systems</i> , 2014 , 11, 48-60	1	9
35	Cloud aided semi-active suspension control 2014 ,		27
34	Safety Margins for Flight Through Stochastic Gusts. <i>Journal of Guidance, Control, and Dynamics</i> , 2014 , 37, 2026-2030	2.1	2
33	Safe landing planning for an energy-constrained multicopter 2014 ,		3
32	Cloud aided safety-based route planning 2014 ,		15
31	Damaged Airplane Trajectory Planning Based on Flight Envelope and Motion Primitives. <i>Journal of Aircraft</i> , 2014 , 51, 1740-1757	1.6	24
30	Characterizing Energy Usage of a Commercially Available Ground Robot: Method and Results. <i>Journal of Field Robotics</i> , 2014 , 31, 441-454	6.7	17
29	Optimal coverage trajectories for a UGV with tradeoffs for energy and time. <i>Autonomous Robots</i> , 2014 , 36, 257-271	3	17
28	Keeping Ground Robots on the Move Through Battery & Mission Management. <i>Mechanical Engineering</i> , 2014 , 136, S1-S6	0.9	2
27	Envelopes for Flight Through Stochastic Gusts. <i>Journal of Guidance, Control, and Dynamics</i> , 2013 , 36, 1464-1476	1.0	10
26	Experimental Characterization of Lift on a Rigid Flapping Wing. <i>Journal of Aircraft</i> , 2013 , 50, 1806-1821	1.6	4
25	Supervisory traction control for a slipping UGV 2013 ,		4
24	Mission-Based Fault Reconfiguration for Spacecraft Applications. <i>Journal of Aerospace Information Systems</i> , 2013 , 10, 513-516	1	1
23	Qualitative Failure Analysis for a Small Quadrotor Unmanned Aircraft System 2013 ,		10
22	Toward Continuous StateSpace Regulation of Coupled CyberPhysical Systems. <i>Proceedings of the IEEE</i> , 2012 , 100, 60-74	14.3	17
21	X-HALE: A Very Flexible Unmanned Aerial Vehicle for Nonlinear Aeroelastic Tests. <i>AIAA Journal</i> , 2012 , 50, 2820-2833	2.1	50

20	Cyber-Physical Challenges for Space Systems 2012 ,			14
19	Risk identification and management for safe UAS operation 2010 ,			7
18	Aerospace Avionics Systems 2010 ,			4
17	Preference-Based Trajectory Generation. <i>Journal of Aerospace Computing, Information, and Communication</i> , 2009 , 6, 142-170			1
16	Design and Development Methodology for Resilient Cyber-Physical Systems 2008 ,			5
15	Incorporating Resource Safety Verification to Executable Model-based Development for Embedded Systems 2008 ,			9
14	Distributed multi-vehicle coordinated control via local information exchange. <i>International Journal of Robust and Nonlinear Control</i> , 2007 , 17, 1002-1033	3.6		934
13	Satellite Formation Mission Optimization with a Multi-Impulse Design. <i>Journal of Spacecraft and Rockets</i> , 2007 , 44, 425-433	1.5		2
12	Introduction: Achieving Intelligence in Aerospace Systems. <i>Journal of Aerospace Computing, Information, and Communication</i> , 2007 , 4, 751-752			1
11	Information consensus in multivehicle cooperative control. <i>IEEE Control Systems</i> , 2007 , 27, 71-82	2.9		1925
10	Noise-Minimum Runway-Independent Aircraft Approach Design for Baltimore-Washington International Airport. <i>Journal of Aircraft</i> , 2006 , 43, 39-51	1.6		14
9	Visual Positioning System for an Underwater Space Simulation Environment. <i>Journal of Guidance, Control, and Dynamics</i> , 2006 , 29, 858-869	2.1		4
8	A Modal Operations Paradigm for Robust Vision-based Astronaut Following. <i>Journal of Aerospace Computing, Information, and Communication</i> , 2006 , 3, 603-618			2
7	Emergency Flight Planning Applied to Total Loss of Thrust. <i>Journal of Aircraft</i> , 2006 , 43, 1205-1216	1.6		67
6	Optimization of a Tetrahedral Satellite Formation. <i>Journal of Spacecraft and Rockets</i> , 2005 , 42, 699-710	1.5		15
5	Multi-Objective Spacecraft Trajectory Optimization with Synthetic Agent Oversight. <i>Journal of Aerospace Computing, Information, and Communication</i> , 2005 , 2, 4-24			4
4	Noise-Sensitive Final Approach Trajectory Optimization for Runway-Independent Aircraft. <i>Journal of Aerospace Computing, Information, and Communication</i> , 2004 , 1, 269-287			12
3	An Autonomous Software Safety System for a Dexterous Space Robot. <i>Journal of Aerospace Computing, Information, and Communication</i> , 2004 , 1, 564-579			2

2	Planning and Resource Allocation for Hard Real-time, Fault-Tolerant Plan Execution. <i>Autonomous Agents and Multi-Agent Systems</i> , 2001 , 4, 57-78	2	13
1	Urban Metric Maps for Small Unmanned Aircraft Systems Motion Planning. <i>Journal of Aerospace Information Systems</i> , 1-16	1	1