

# Mark E Campbell

## List of Publications by Year in Descending Order

**Source:** <https://exaly.com/author-pdf/7551946/mark-e-campbell-publications-by-year.pdf>

**Version:** 2024-04-20

This document has been generated based on the publications and citations recorded by exaly.com. For the latest version of this publication list, visit the link given above.

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

180  
papers

2,476  
citations

26  
h-index

42  
g-index

207  
ext. papers

3,279  
ext. citations

3.8  
avg, IF

5.36  
L-index

#	Paper	IF	Citations
180	Exploiting Natural Language for Efficient Risk-Aware Multi-Robot SaR Planning. <i>IEEE Robotics and Automation Letters</i> , <b>2021</b> , 6, 3152-3159	4.2	1
179	Interactive Natural Language-Based Person Search. <i>IEEE Robotics and Automation Letters</i> , <b>2020</b> , 5, 1851-1858	4.2	2
178	Mixed-Integer Linear Programming Models for Multi-Robot Non-Adversarial Search. <i>IEEE Robotics and Automation Letters</i> , <b>2020</b> , 5, 6805-6812	4.2	2
177	. <i>IEEE Robotics and Automation Letters</i> , <b>2020</b> , 5, 6884-6891	4.2	1
176	End-to-End Pseudo-LiDAR for Image-Based 3D Object Detection <b>2020</b> ,		27
175	Train in Germany, Test in the USA: Making 3D Object Detectors Generalize <b>2020</b> ,		9
174	Anytime Stereo Image Depth Estimation on Mobile Devices <b>2019</b> ,		37
173	Video-guided Camera Control for Target Tracking and Following. <i>IFAC-PapersOnLine</i> , <b>2019</b> , 51, 176-183	0.7	7
172	LDLS: 3-D Object Segmentation Through Label Diffusion From 2-D Images. <i>IEEE Robotics and Automation Letters</i> , <b>2019</b> , 4, 2902-2909	4.2	6
171	Pedestrian Motion Model Using Non-Parametric Trajectory Clustering and Discrete Transition Points. <i>IEEE Robotics and Automation Letters</i> , <b>2019</b> , 4, 2614-2621	4.2	8
170	<b>2019</b> ,		195
169	Estimation and navigation methods with limited information for autonomous urban driving. <i>Engineering Reports</i> , <b>2019</b> , 1, e12054	1.2	1
168	An Empirical Study of Person Re-Identification with Attributes <b>2019</b> ,		3
167	Joint stereo camera calibration and multi-target tracking using the linear-complexity factorial cumulant filter <b>2019</b> ,		0
166	Uncertainty Constrained Robotic Exploration: An Integrated Exploration Planner. <i>IEEE Transactions on Control Systems Technology</i> , <b>2019</b> , 27, 146-160	4.8	1
165	Joint Exploration and Tracking: JET <b>2018</b> , 2, 43-48		4
164	HumanRobot Communications of Probabilistic Beliefs via a Dirichlet Process Mixture of Statements. <i>IEEE Transactions on Robotics</i> , <b>2018</b> , 34, 1280-1298	6.5	3

163	Q-Link: A general planning architecture for navigation with qualitative relational information. <i>Robotics and Autonomous Systems</i> , <b>2018</b> , 108, 51-65	3.5	2
162	Autonomous Urban Localization and Navigation with Limited Information <b>2018</b> ,		1
161	Perception-Informed Autonomous Environment Augmentation with Modular Robots <b>2018</b> ,		7
160	Secure Autonomous Cyber-Physical Systems Through Verifiable Information Flow Control <b>2018</b> ,		3
159	An integrated system for perception-driven autonomy with modular robots. <i>Science Robotics</i> , <b>2018</b> , 3,	18.6	32
158	An Adaptable, Probabilistic, Next-Best View Algorithm for Reconstruction of Unknown 3-D Objects. <i>IEEE Robotics and Automation Letters</i> , <b>2017</b> , 2, 1540-1547	4.2	28
157	Experimental Evaluation and Formal Analysis of High-Level Tasks with Dynamic Obstacle Anticipation on a Full-Sized Autonomous Vehicle. <i>Journal of Field Robotics</i> , <b>2017</b> , 34, 897-911	6.7	6
156	. <i>IEEE Transactions on Robotics</i> , <b>2017</b> , 33, 313-332	6.5	6
155	Probabilistic qualitative mapping for robots. <i>Robotics and Autonomous Systems</i> , <b>2017</b> , 98, 292-306	3.5	2
154	Qualitative relational mapping and navigation for planetary rovers. <i>Robotics and Autonomous Systems</i> , <b>2016</b> , 83, 73-86	3.5	5
153	An efficient robotic exploration planner with probabilistic guarantees <b>2016</b> ,		5
152	. <i>IEEE Control Systems</i> , <b>2016</b> , 36, 83-109	2.9	26
151	Smoothing Algorithm for Nonlinear Systems Using Gaussian Mixture Models. <i>Journal of Guidance, Control, and Dynamics</i> , <b>2015</b> , 38, 1438-1451	2.1	6
150	Unified Terrain Mapping Model With Markov Random Fields. <i>IEEE Transactions on Robotics</i> , <b>2015</b> , 31, 290-306	6.5	3
149	Negative Information for Occlusion Reasoning in Dynamic Extended Multiobject Tracking. <i>IEEE Transactions on Robotics</i> , <b>2015</b> , 31, 425-442	6.5	19
148	Fully bayesian learning and spatial reasoning with flexible human sensor networks <b>2015</b> ,		2
147	Multi-step prediction of nonlinear Gaussian Process dynamics models with adaptive Gaussian mixtures. <i>International Journal of Robotics Research</i> , <b>2015</b> , 34, 1211-1227	5.7	6
146	Joint tracking and non-parametric shape estimation of arbitrary extended objects <b>2015</b> ,		7

145	Human-robot information sharing with structured language generation from probabilistic beliefs <b>2015,</b>		1
144	Maximum Likelihood Fusion of Stochastic Maps. <i>IEEE Transactions on Signal Processing</i> , <b>2014</b> , 62, 2090-2099		2
143	. <i>IEEE Transactions on Robotics</i> , <b>2014</b> , 30, 461-474	6.5	30
142	Statistical modelling of networked human-automation performance using working memory capacity. <i>Ergonomics</i> , <b>2014</b> , 57, 295-318	2.9	13
141	Multiple-step prediction using a two stage Gaussian Process model <b>2014,</b>		4
140	Negative observations for multiple hypothesis tracking of dynamic extended objects <b>2014,</b>		5
139	Qualitative Relational Mapping for Mobile Robots with Minimal Sensing. <i>Journal of Aerospace Information Systems</i> , <b>2014</b> , 11, 497-511	1	6
138	Contingency Planning Over Probabilistic Obstacle Predictions for Autonomous Road Vehicles. <i>IEEE Transactions on Robotics</i> , <b>2013</b> , 29, 913-929	6.5	49
137	Bayesian Multicategorical Soft Data Fusion for HumanRobot Collaboration. <i>IEEE Transactions on Robotics</i> , <b>2013</b> , 29, 189-206	6.5	28
136	. <i>IEEE Transactions on Systems, Man, and Cybernetics: Systems</i> , <b>2013</b> , 43, 886-900	7.3	6
135	Modeling and fusing negative information for dynamic extended multi-object tracking <b>2013,</b>		4
134	A qualitative path planner for robot navigation using human-provided maps. <i>International Journal of Robotics Research</i> , <b>2013</b> , 32, 1517-1535	5.7	12
133	Cooperative Estimation Using Mobile Sensor Nodes in the Presence of Communication Loss. <i>Journal of Aerospace Information Systems</i> , <b>2013</b> , 10, 114-130	1	6
132	Qualitative Relational Mapping for Planetary Rover Exploration <b>2013,</b>		3
131	On estimating simple probabilistic discriminative models with subclasses. <i>Expert Systems With Applications</i> , <b>2012</b> , 39, 6659-6664	7.8	3
130	. <i>Proceedings of the IEEE</i> , <b>2012</b> , 100, 604-622	14.3	6
129	. <i>IEEE Transactions on Aerospace and Electronic Systems</i> , <b>2012</b> , 48, 1115-1135	3.7	22
128	Posterior representation with a multi-modal likelihood using the gaussian sum filter for localization in a known map. <i>Journal of Field Robotics</i> , <b>2012</b> , 29, 240-257	6.7	9

127	Execution and analysis of high-level tasks with dynamic obstacle anticipation <b>2012</b> ,		3
126	Iterative smoothing approach using Gaussian mixture models for nonlinear estimation <b>2012</b> ,		1
125	Detection Methods for Mode Perturbation Signatures. <i>IEEE Transactions on Automatic Control</i> , <b>2012</b> , 57, 2923-2928	5.9	
124	Fast Consistent Chernoff Fusion of Gaussian Mixtures for Ad Hoc Sensor Networks. <i>IEEE Transactions on Signal Processing</i> , <b>2012</b> , 60, 6739-6745	4.8	13
123	Unified mixture-model based terrain estimation with Markov Random Fields <b>2012</b> ,		6
122	An Experimental Evaluation of Bayesian Soft Human Sensor Fusion in Robotic Systems <b>2012</b> ,		4
121	Qualitative Relational Mapping for Autonomous Robotics <b>2012</b> ,		1
120	Efficient Unbiased Tracking of Multiple Dynamic Obstacles Under Large Viewpoint Changes. <i>IEEE Transactions on Robotics</i> , <b>2011</b> , 27, 29-46	6.5	28
119	Decentralized Information-Rich Planning and Hybrid Sensor Fusion for Uncertainty Reduction in Human-Robot Missions <b>2011</b> ,		5
118	. <i>IEEE Transactions on Aerospace and Electronic Systems</i> , <b>2011</b> , 47, 1351-1368	3.7	6
117	. <i>IEEE Transactions on Aerospace and Electronic Systems</i> , <b>2011</b> , 47, 2779-2791	3.7	2
116	Map-aided localization in sparse global positioning system environments using vision and particle filtering. <i>Journal of Field Robotics</i> , <b>2011</b> , 28, 619-643	6.7	27
115	Variational learning of autoregressive Mixtures of Experts for fully Bayesian hybrid system identification <b>2011</b> ,		1
114	Variational Bayesian Learning of Probabilistic Discriminative Models With Latent Softmax Variables. <i>IEEE Transactions on Signal Processing</i> , <b>2011</b> , 59, 3143-3154	4.8	13
113	A robust qualitative planner for mobile robot navigation using human-provided maps <b>2011</b> ,		4
112	Clustering obstacle predictions to improve contingency planning for autonomous road vehicles in congested environments <b>2011</b> ,		2
111	Probabilistic multi-level maps from LIDAR data. <i>International Journal of Robotics Research</i> , <b>2011</b> , 30, 1508-1526	5.7	9
110	Categorical soft data fusion via variational Bayesian importance sampling with applications to cooperative search <b>2011</b> ,		5

109	Decentralized Geolocation and Bias Estimation for Uninhabited Aerial Vehicles with Articulating Cameras. <i>Journal of Guidance, Control, and Dynamics</i> , <b>2011</b> , 34, 564-573	2.1	8
108	Autonomous driving in urban environments: approaches, lessons and challenges. <i>Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences</i> , <b>2010</b> , 368, 4649-72	3	164
107	Segmentation of dense range information in complex urban scenes <b>2010</b> ,		22
106	Contingency planning over probabilistic hybrid obstacle predictions for autonomous road vehicles <b>2010</b> ,		7
105	<b>2010</b> ,		10
104	Formation Optimal Maneuvers Under Inertial Attitude Dynamics. <i>Journal of Spacecraft and Rockets</i> , <b>2010</b> , 47, 295-307	1.5	0
103	Vision-Based Geolocation Tracking System for Uninhabited Aerial Vehicles. <i>Journal of Guidance, Control, and Dynamics</i> , <b>2010</b> , 33, 521-532	2.1	13
102	Variational Bayesian data fusion of multi-class discrete observations with applications to cooperative human-robot estimation <b>2010</b> ,		7
101	Emergence of Pico- and Nanosatellites for Atmospheric Research and Technology Testing <b>2010</b> ,		3
100	Anticipation as a Method for Overcoming Time Delay in Control of Remote Systems <b>2010</b> ,		2
99	Discrete and continuous, probabilistic anticipation for autonomous robots in urban environments <b>2010</b> ,		6
98	Probabilistic estimation of Multi-Level terrain maps <b>2009</b> ,		7
97	An Empirical Study of Human-Robotic Teams with Three Levels of Autonomy <b>2009</b> ,		1
96	Localization with multi-modal vision measurements in limited GPS environments using Gaussian Sum Filters <b>2009</b> ,		3
95	The MIT-Cornell Collision and Why It Happened. <i>Springer Tracts in Advanced Robotics</i> , <b>2009</b> , 509-548	0.5	6
94	Team Cornell-SkyNet: Robust Perception and Planning in an Urban Environment. <i>Springer Tracts in Advanced Robotics</i> , <b>2009</b> , 257-304	0.5	5
93	Robust Nonlinear Model Predictive Control With Partial State Information. <i>IEEE Transactions on Control Systems Technology</i> , <b>2008</b> , 16, 636-651	4.8	25
92	Information-Theoretic Optimization of Periodic Orbits for Persistent Cooperative Geolocation <b>2008</b> ,		3

91	Tightly-coupled GPS / INS system design for autonomous urban navigation <b>2008</b> ,		14
90	Sensitivity analysis of an optimization-based trajectory planner for autonomous vehicles in urban environments <b>2008</b> ,		1
89	<b>2008</b> ,		21
88	Multimodal operator decision models <b>2008</b> ,		7
87	A locally most powerful detector for mode perturbation signatures <b>2008</b> ,		1
86	Scalable Bayesian human-robot cooperation in mobile sensor networks <b>2008</b> ,		17
85	Team Cornell's Skynet: Robust perception and planning in an urban environment. <i>Journal of Field Robotics</i> , <b>2008</b> , 25, 493-527	6.7	87
84	The MIT-Cornell collision and why it happened. <i>Journal of Field Robotics</i> , <b>2008</b> , 25, 775-807	6.7	69
83	Flight Results from Tracking Ground Targets Using SeaScan UAVs with Gimbaling Cameras. <i>Proceedings of the American Control Conference</i> , <b>2007</b> ,	1.2	8
82	Simulation and Flight Test of Autonomous Aircraft Estimation, Planning, and Control Algorithms. <i>Journal of Guidance, Control, and Dynamics</i> , <b>2007</b> , 30, 1597-1609	2.1	16
81	Cooperative Tracking Using Vision Measurements on SeaScan UAVs. <i>IEEE Transactions on Control Systems Technology</i> , <b>2007</b> , 15, 613-626	4.8	61
80	Optimal Cooperative Reconnaissance Using Multiple Vehicles. <i>Journal of Guidance, Control, and Dynamics</i> , <b>2007</b> , 30, 122-132	2.1	56
79	Planning for Cooperative Multi-vehicle Reconnaissance. <i>Journal of Aerospace Computing, Information, and Communication</i> , <b>2007</b> , 4, 657-675		4
78	. <i>Proceedings - IEEE International Conference on Robotics and Automation</i> , <b>2007</b> ,		14
77	Scalable Sensing, Estimation, and Control Architecture for Large Spacecraft Formations. <i>Journal of Guidance, Control, and Dynamics</i> , <b>2007</b> , 30, 289-300	2.1	8
76	Towards Probabilistic Operator-Multiple Robot Decision Models. <i>Proceedings - IEEE International Conference on Robotics and Automation</i> , <b>2007</b> ,		4
75	State-dependent probabilistic model reduction for evaluation of human-robotic autonomous systems <b>2007</b> ,		1
74	Autonomous Cooperative Geo-Location and Coordinated Tracking of Moving Targets <b>2007</b> ,		3

73	Probabilistic Operator-Multiple Robot Modeling Using Bayesian Network Representation <b>2007</b> ,		4
72	Cooperative Tracking Flight Test <b>2007</b> ,		5
71	Cooperative Geolocation with UAVs Under Communication Constraints <b>2007</b> ,		2
70	Bounded Switched Linear Estimator for Smooth Nonlinear Systems. <i>IEEE Transactions on Control Systems Technology</i> , <b>2007</b> , 15, 358-368	4.8	2
69	To Drive Is Human. <i>Computer</i> , <b>2006</b> , 39, 52-56	1.6	6
68	<b>2006</b> ,		20
67	Reply by the Authors to P. Sengupta. <i>Journal of Guidance, Control, and Dynamics</i> , <b>2006</b> , 29, 1486-1486	2.1	
66	Optimal Planner for Spacecraft Formations in Elliptical Orbits. <i>Journal of Guidance, Control, and Dynamics</i> , <b>2006</b> , 29, 161-171	2.1	38
65	A Vision Based Geolocation Tracking System for UAV's <b>2006</b> ,		25
64	Discussion on: A Stacked Model Structure for Off-line Parameter Variation Estimation in Multi-equilibria Nonlinear Systems <i>European Journal of Control</i> , <b>2006</b> , 12, 367-370	2.5	
63	Stabilization of Spacecraft Flight in Halo Orbits: An $H_{\infty}$ Approach. <i>IEEE Transactions on Control Systems Technology</i> , <b>2006</b> , 14, 572-578	4.8	33
62	Operator Decision Modeling in Cooperative UAV Systems <b>2006</b> ,		4
61	Fuel Optimal Maneuvers with Spacecraft Attitude Constraints <b>2006</b> ,		1
60	A mixture-model based algorithm for real-time terrain estimation. <i>Journal of Field Robotics</i> , <b>2006</b> , 23, 755-775	6.7	17
59	Real Time Optimal Task Allocation in Highly Dynamic Environments <b>2005</b> , 131		2
58	Collision monitoring within satellite clusters. <i>IEEE Transactions on Control Systems Technology</i> , <b>2005</b> , 13, 42-55	4.8	26
57	Identifying gene and protein mentions in text using conditional random fields. <i>BMC Bioinformatics</i> , <b>2005</b> , 6 Suppl 1, S6	3.6	109
56	Pulsed Plasma Thruster System for Microsatellites. <i>Journal of Spacecraft and Rockets</i> , <b>2005</b> , 42, 161-170	1.5	31



55	Active Model Estimation for Complex Autonomous Systems <b>2004</b> , 201-224		2
54	Square Root Sigma Point Filtering for Real-Time, Nonlinear Estimation. <i>Journal of Guidance, Control, and Dynamics</i> , <b>2004</b> , 27, 314-317	2.1	26
53	Sensors and control of a space-based six-axis vibration isolation system. <i>Journal of Sound and Vibration</i> , <b>2004</b> , 269, 913-931	3.9	48
52	On-line estimation and path planning for multiple vehicles in an uncertain environment. <i>International Journal of Robust and Nonlinear Control</i> , <b>2004</b> , 14, 741-766	3.6	26
51	Establishing Trajectories for Multi-Vehicle Reconnaissance <b>2004</b> ,		23
50	Optimal Planning for Tetrahedral Formations Near Elliptical Orbits <b>2004</b> ,		1
49	An approach to magnetic torque attitude control of satellites via 'H/sub /spl infin/' control for LTV systems <b>2004</b> ,		7
48	Planning Algorithm for Multiple Satellite Clusters. <i>Journal of Guidance, Control, and Dynamics</i> , <b>2003</b> , 26, 770-780	2.1	61
47	A nonlinear set-membership filter for on-line applications. <i>International Journal of Robust and Nonlinear Control</i> , <b>2003</b> , 13, 1337-1358	3.6	63
46	Multiple agent-based autonomy for satellite constellations. <i>Artificial Intelligence</i> , <b>2003</b> , 145, 147-180	3.6	52
45	Pulsed Plasma Thruster Electromagnetic Compatibility Studies <b>2003</b> ,		5
44	Distributed Control of Formation Flying Spacecraft Built on OA <b>2003</b> ,		10
43	Artificial Potential Guided Evolutionary Path Plan for Target Pursuit and Obstacle Avoidance <b>2003</b> ,		8
42	Experimental Study of Information Load on Operators of Semi-Autonomous Systems <b>2003</b> ,		9
41	Using Stream Functions for Complex Behavior and Path Generation <b>2003</b> ,		24
40	Robust Nonlinear Model Predictive Control with Partial State Information <b>2003</b> ,		1
39	Validation of Active State Model Based Control Using the SeaScan UAV <b>2003</b> ,		3
38	Comparison of Multiple Agent-Based Organizations for Satellite Constellations. <i>Journal of Spacecraft and Rockets</i> , <b>2002</b> , 39, 274-283	1.5	7

37	Collision avoidance in satellite clusters <b>2002</b> ,		8
36	Estimation architecture for future autonomous vehicles <b>2002</b> ,		22
35	Six-Axis Vibration Isolation System Using Soft Actuators and Multiple Sensors. <i>Journal of Spacecraft and Rockets</i> , <b>2002</b> , 39, 206-212	1.5	64
34	On-Line Estimation and Path Planning for Multiple Vehicles in an Uncertain Environment <b>2002</b> ,		12
33	Planning Algorithm for Large Satellite Clusters <b>2002</b> ,		9
32	A docking system for microsattellites based on MEMS actuator arrays <b>2001</b> ,		1
31	Multiple Agent-Based Autonomy for Satellite Constellations. <i>Lecture Notes in Computer Science</i> , <b>2000</b> , 151-165	0.9	11
30	Development of a micro pulsed plasma thruster for the Dawgstar nanosatellite <b>2000</b> ,		17
29	Shaping the transmissibility for six-axis active vibration isolators <b>1999</b> ,		1
28	Oh, Now I Get It!*. <i>Journal of Engineering Education</i> , <b>1999</b> , 88, 381-383	2.3	8
27	Parametric uncertainty model for control design and analysis. <i>IEEE Transactions on Control Systems Technology</i> , <b>1999</b> , 7, 85-96	4.8	11
26	On-Orbit Closed-Loop Control Results for the Middeck Active Control Experiment. <i>Journal of Guidance, Control, and Dynamics</i> , <b>1999</b> , 22, 267-277	2.1	1
25	PPT development efforts at PRIMEX Aerospace Company <b>1999</b> ,		8
24	MEMS control moment gyroscope design and wafer-based spacecraft chassis study <b>1999</b> ,		3
23	Classically Rationalized Low-Order, Robust Structural Controllers. <i>Journal of Guidance, Control, and Dynamics</i> , <b>1998</b> , 21, 296-306	2.1	4
22	Flight Results from the Middeck Active Control Experiment (MACE). <i>AIAA Journal</i> , <b>1998</b> , 36, 432-440	2.1	3
21	Development of Structural Uncertainty Models. <i>Journal of Guidance, Control, and Dynamics</i> , <b>1997</b> , 20, 841-849	2.1	10
20	Uncertainty effects in model-data correlation <b>1997</b> ,		1

19	Actuator and sensor design for controlled structures <b>1997</b> ,	1
18	Uncertainty modeling for structural control analysis and synthesis <b>1996</b> ,	1
17	Overview of Closed Loop Results for MACE. <i>IFAC Postprint Volumes IPPV / International Federation of Automatic Control</i> , <b>1996</b> , 29, 1494-1499	
16	Identification and Parameter Estimation for Control Design. <i>IFAC Postprint Volumes IPPV / International Federation of Automatic Control</i> , <b>1996</b> , 29, 4138-4143	2
15	Control Analysis for MACE: Methods and Limitations. <i>IFAC Postprint Volumes IPPV / International Federation of Automatic Control</i> , <b>1996</b> , 29, 1488-1493	1
14	Asymptotic linear quadratic control for lightly damped structures. <i>Journal of Guidance, Control, and Dynamics</i> , <b>1996</b> , 19, 969-972	2.1 3
13	Classically Rationalized low order robust structural controllers <b>1994</b> ,	2
12	Validation of simplified formation models at L2	1
11	RoboFlag games using systems based, hierarchical control	16
10	Hybrid Cooperative Reconnaissance Without Communication	3
9	Flight software development for the ION-F formation flying mission	1
8	Online nonlinear guaranteed estimation with application to a high performance aircraft	1
7	CubeSat design for LEO-based Earth science missions	17
6	Formation flying mission for the UW Dawgstar satellite	8
5	A micro pulsed plasma thruster (PPT) for the "Dawgstar" spacecraft	8
4	Nonlinear estimation of aircraft models for on-line control customization	7
3	The Middeck Active Control Experiment (MACE): using space for technology research and development	1
2	The SISO LQG compensator for lightly damped structures	2

1 Verification procedure for on-orbit controllers for the MIT Middeck Active Control Experiment

5