David W Casbeer

List of Publications by Year
in descending order

123 papers	2,684 citations	304602 22 h-index	254106 43 g-index
123 all docs	123 docs citations	123 times ranked	1661 citing authors

#	Article	IF	Citations
1	A Lagrangian Algorithm for Multiple Depot Traveling Salesman Problem With Revisit Period Constraints. IEEE Transactions on Automation Science and Engineering, 2023, 20, 690-702.	3.4	2
2	UAV Trajectory Planning With Probabilistic Geo-Fence via Iterative Chance-Constrained Optimization. IEEE Transactions on Intelligent Transportation Systems, 2022, 23, 5859-5870.	4.7	9
3	Shortest Dubins Paths to Intercept a Target Moving on a Circle. Journal of Guidance, Control, and Dynamics, 2022, 45, 2107-2120.	1.6	3
4	Distributed coestimation in heterogeneous sensor networks. International Journal of Control, 2021, 94, 2032-2046.	1.2	2
5	Multiple Pursuer Multiple Evader Differential Games. IEEE Transactions on Automatic Control, 2021, 66, 2345-2350.	3.6	62
6	Multi-unmanned aerial vehicle multi acoustic source localization. Proceedings of the Institution of Mechanical Engineers, Part G: Journal of Aerospace Engineering, 2021, 235, 273-294.	0.7	5
7	Swarming Artificial Intelligence for Networked Teams (SAINT). , 2021, , .		0
8	The Complete Differential Game of Active Target Defense. Journal of Optimization Theory and Applications, 2021, 191, 675-699.	0.8	7
9	Optimal UAV Route Planning for Persistent Monitoring Missions. IEEE Transactions on Robotics, 2021, 37, 550-566.	7.3	23
10	Robust Policies for a Multiple-Pursuer Single-Evader Differential Game. Dynamic Games and Applications, 2020, 10, 202-221.	1.1	9
11	Cooperative Routing for an Air–Ground Vehicle Team—Exact Algorithm, Transformation Method, and Heuristics. IEEE Transactions on Automation Science and Engineering, 2020, 17, 537-547.	3.4	30
12	Optimal Strategies of the Differential Game in a Circular Region. , 2020, 4, 492-497.		21
13	Min–max time efficient inspection of ground vehicles by a UAV team. Robotics and Autonomous Systems, 2020, 125, 103370.	3.0	11
14	Leader-Follower Formation Feedback Control Composed of Turning Rate and Velocity Controllers. , 2020, , .		3
15	Intercepting a Target Moving on a Racetrack Path. , 2020, , .		0
16	Persistent Intelligence, Surveillance, and Reconnaissance Using Multiple Autonomous Vehicles With Asynchronous Route Updates. IEEE Robotics and Automation Letters, 2020, 5, 5550-5557.	3.3	12
17	A Two-team Linear Quadratic Differential Game of Defending a Target. , 2020, , .		9
18	Market Approach to Length Constrained Min-Max Multiple Depot Multiple Traveling Salesman Problem. , 2020, , .		8

#	Article	IF	Citations
19	Cooperative Air-Ground Vehicle Routing using Chance-Constrained Optimization. , 2020, , .		4
20	Cooperative Pursuit by Multiple Pursuers of a Single Evader. Journal of Aerospace Information Systems, 2020, 17, 371-389.	1.0	14
21	Optimal Strategies for a Class of Multi-Player Reach-Avoid Differential Games in 3D Space. IEEE Robotics and Automation Letters, 2020, 5, 4257-4264.	3.3	33
22	Single Pursuer and Two Cooperative Evaders in the Border Defense Differential Game. Journal of Aerospace Information Systems, 2020, 17, 229-239.	1.0	9
23	Towards a PDE-based large-scale decentralized solution for path planning of UAVs in shared airspace. Aerospace Science and Technology, 2020, 105, 105965.	2.5	23
24	A sequential partial information bomberâ€defender shooting problem. Naval Research Logistics, 2020, 67, 223-235.	1.4	1
25	Graph search of a moving ground target by a UAV aided by ground sensors with local information. Autonomous Robots, 2020, 44, 831-843.	3.2	5
26	Multiple-Pursuer, Single-Evader Border Defense Differential Game. Journal of Aerospace Information Systems, 2020, 17, 407-416.	1.0	21
27	Introduction to the Special Issue on Multi-agent Coordination and Control. Journal of Aerospace Information Systems, 2020, 17, 370-370.	1.0	0
28	Maximum Observation of a Faster Non-Maneuvering Target by a Slower Observer. , 2020, , .		7
29	Pursuit in the Presence of a Defender. Dynamic Games and Applications, 2019, 9, 652-670.	1.1	10
30	Linear Quadratic Formulation of the Target Defense Differential Game. , 2019, , .		3
31	Randomized Continuous Monitoring of a Target by Agents with Turn Radius Constraints. , 2019, , .		5
32	Maximizing the Target's Longevity in the Active Target Defense Differential Game. , 2019, , .		1
33	Singular Trajectories in the Two Pursuer One Evader Differential Game. , 2019, , .		7
34	The Multi-pursuer Single-Evader Game. Journal of Intelligent and Robotic Systems: Theory and Applications, 2019, 96, 193-207.	2.0	35
35	Two-on-One Pursuit. Journal of Guidance, Control, and Dynamics, 2019, 42, 1638-1644.	1.6	17
36	Coordinated Air-Ground Vehicle Routing with Timing Constraints. , 2019, , .		4

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37	Strategies for Defending a Coastline Against Multiple Attackers. , 2019, , .		22
38	Cooperative Two-Pursuer One-Evader Blocking Differential Game. , 2019, , .		20
39	Navigation with Multi-obstacle Avoidance Composed of Stochastic Optimal Controllers. , 2019, , .		0
40	Toward a Solution of the Active Target Defense Differential Game. Dynamic Games and Applications, 2019, 9, 165-216.	1.1	28
41	Scalable Markov chain approximation for a safe intercept navigation in the presence of multiple vehicles. Autonomous Robots, 2019, 43, 575-588.	3.2	7
42	Optimal Dubins Paths to Intercept a Moving Target on a Circle. , 2019, , .		9
43	Markov inequality rule for switching among time optimal controllers in a multiple vehicle intercept problem. Automatica, 2018, 87, 274-280.	3.0	12
44	Cooperative Missile Guidance for Active Defense of Air Vehicles. IEEE Transactions on Aerospace and Electronic Systems, 2018, 54, 706-721.	2.6	60
45	Design and Analysis of State-Feedback Optimal Strategies for the Differential Game of Active Defense. IEEE Transactions on Automatic Control, 2018, , 1-1.	3.6	39
46	An event-triggered control approach for the leader-tracking problem with heterogeneous agents. International Journal of Control, 2018, 91, 1209-1221.	1.2	25
47	The Target Differential Game with Two Defenders. Journal of Intelligent and Robotic Systems: Theory and Applications, 2018, 89, 87-106.	2.0	12
48	The Capture-the-Flag Differential Game. , 2018, , .		17
49	Two-Pursuer, One-Evader Pursuit Evasion Differential Game. , 2018, , .		13
50	Adaptive Event-triggered Cooperative Control of Uncertain Networked Systems. IFAC-PapersOnLine, 2018, 51, 82-87.	0.5	0
51	Scalable and Exact MILP Methods for UAV Persistent Visitation Problem. , 2018, , .		13
52	Pursuit-evasion of an Evader by Multiple Pursuers. , 2018, , .		26
53	Optimal Target Capture Strategies in the Target-Attacker-Defender Differential Game. , 2018, , .		18
54	Distributed Coestimation in Heterogeneous Sensor Networks with Time-Varying Active and Passive Node Roles. , 2018, , .		1

#	ARTICLE	IF	CITATIONS
55	Decentralized 3D PDE Based Collaborative Trajectory Planning and Target Surrounding for Swarm of UAVs in Cluttered Environment. , 2018, , .		0
56	Genetic Algorithm Approach for UAV Persistent Visitation Problem. , 2018, , .		2
57	Intruder Isolation on a General Road Network Under Partial Information. IEEE Transactions on Control Systems Technology, 2017, 25, 222-234.	3.2	5
58	Periodic Event-Triggered Synchronization of Linear Multi-Agent Systems With Communication Delays. IEEE Transactions on Automatic Control, 2017, 62, 366-371.	3.6	158
59	Active target defense using first order missile models. Automatica, 2017, 78, 139-143.	3.0	45
60	Monotone Optimal Threshold Feedback Policy for Sequential Weapon Target Assignment. Journal of Aerospace Information Systems, 2017, 14, 68-72.	1.0	6
61	Differential Game of Guarding a Target. Journal of Guidance, Control, and Dynamics, 2017, 40, 2991-2998.	1.6	30
62	Coordinate frame free Dubins vehicle circumnavigation using only range‐based measurements. International Journal of Robust and Nonlinear Control, 2017, 27, 2937-2960.	2.1	39
63	Multitarget Localization on Road Networks with Hidden Markov Rao–Blackwellized Particle Filters. Journal of Aerospace Computing, Information, and Communication, 2017, 14, 573-596.	0.8	6
64	Distributed algorithms for the average bridge consensus. , 2017, , .		5
65	Multi-UAV routing for persistent intelligence surveillance & reconnaissance missions. , 2017, , .		60
66	Optimizing multiple UAV cooperative ground attack missions. , 2017, , .		3
67	Tightly Bounding the Shortest Dubins Paths Through a Sequence of Points. Journal of Intelligent and Robotic Systems: Theory and Applications, 2017, 88, 495-511.	2.0	46
68	A Geometric Approach for the Cooperative Two-Pursuer One-Evader Differential Game. IFAC-PapersOnLine, 2017, 50, 15209-15214.	0.5	38
69	Average Reward Dynamic Programming Applied to a Persistent Visitation and Data Delivery Problem. , 2017, , .		5
70	Transformation of a hierarchical mamdani fuzzy system to a single fuzzy system representation. , 2017, , .		0
71	Active target defence differential game: fast defender case. IET Control Theory and Applications, 2017, 11, 2985-2993.	1.2	37
72	A stochastic approach to small UAV feedback control for target tracking and blind spot avoidance. , 2017, , .		9

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73	Aircraft Defense Differential Game with Non-Zero Capture Radius. IFAC-PapersOnLine, 2017, 50, 14200-14205.	0.5	7
74	An event-triggered consensus approach for distributed clock synchronization. , 2017, , .		10
75	Cooperative surveillance in the presence of time sensitive data. , 2017, , .		3
76	Practical considerations for implementing an autonomous, persistent, intelligence, surveillance, and reconnaissance system. , 2017, , .		15
77	Pursuit on a graph under partial information from sensors. , 2017, , .		6
78	Stochastic optimal control navigation with the avoidance of unsafe configurations. , 2016, , .		5
79	Dubins paths through a sequence of points: Lower and upper bounds. , 2016, , .		15
80	Scalable value approximation for multiple target tail-chase with collision avoidance. , 2016, , .		4
81	Towards cost-effective distributed information fusion with partially active sensors in directed networks. , 2016, , .		3
82	Singular analysis of a multi-agent, turn-constrained, defensive game. , 2016, , .		13
83	Optimal Threshold Policy for Sequential Weapon Target Assignment. IFAC-PapersOnLine, 2016, 49, 7-10.	0.5	7
84	Path planning for cooperative routing of air-ground vehicles. , 2016, , .		43
85	Decentralised event–triggered consensus of double integrator multi–agent systems with packet losses and communication delays. IET Control Theory and Applications, 2016, 10, 1835-1843.	1.2	31
86	The target differential game with two defenders. , 2016, , .		6
87	Pursuit of a Moving Target with Known Constant Speed on a Directed Acyclic Graph under Partial Information. SIAM Journal on Control and Optimization, 2016, 54, 2259-2273.	1.1	3
88	GPS Denied UAV Routing with Communication Constraints. Journal of Intelligent and Robotic Systems: Theory and Applications, 2016, 84, 691-703.	2.0	15
89	Finite-Time Connectivity-Preserving Consensus of Networked Nonlinear Agents With Unknown Lipschitz Terms. IEEE Transactions on Automatic Control, 2016, 61, 1700-1705.	3.6	73
90	Average Bridge Consensus: Dealing With Active-Passive Sensors. , 2015, , .		10

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91	Escape Regions of the Active Target Defense Differential Game. , 2015, , .		7
92	Cooperative Strategies for Optimal Aircraft Defense from an Attacking Missile. Journal of Guidance, Control, and Dynamics, 2015, 38, 1510-1520.	1.6	92
93	Bayesian hidden Markov models for UAV-enabled target localization on road networks with soft-hard data. Proceedings of SPIE, 2015, , .	0.8	3
94	Cooperative target defense differential game with a constrained-maneuverable Defender. , 2015, , .		14
95	Active Target defense differential game with a fast Defender. , 2015, , .		18
96	Decentralized event-triggered consensus of Linear Multi-agent Systems under Directed Graphs. , 2015, , .		21
97	Unmanned Aerial Vehicle Circumnavigation Using Noisy Range-Based Measurements Without Global Positioning System Information. Journal of Dynamic Systems, Measurement and Control, Transactions of the ASME, 2015, 137, .	0.9	17
98	Consensus-based simultaneous arrival of multiple UAVs with constrained velocity. , 2015, , .		5
99	Genetic Fuzzy Trees and their Application Towards Autonomous Training and Control of a Squadron of Unmanned Combat Aerial Vehicles. Unmanned Systems, 2015, 03, 185-204.	2.7	51
100	Lower Bounding Linear Program for the Perimeter Patrol Optimization Problem. Journal of Guidance, Control, and Dynamics, 2014, 37, 558-565.	1.6	3
101	Decentralized Sub-Optimal Minimum-Time Consensus. , 2014, , .		1
102	Cooperative control with general linear dynamics and limited communication: Periodic updates. , 2014, , .		6
103	Coordinate frame free Dubins vehicle circumnavigation. , 2014, , .		8
104	Active target defense differential game. , 2014, , .		41
105	UAV circumnavigation of an unknown target without location information using noisy range-based measurements. , 2014, , .		7
106	Continuous-time intruder isolation using Unattended Ground Sensors on graphs. , 2014, , .		5
107	Cooperative control with general linear dynamics and limited communication: Centralized and decentralized event-triggered control strategies. , 2014, , .		20
108	Routing of two Unmanned Aerial Vehicles with communication constraints. , 2014, , .		12

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109	Model-based event-triggered multi-vehicle coordinated tracking control using reduced order models. Journal of the Franklin Institute, 2014, 351, 4271-4286.	1.9	6
110	UAV Coordinated Decision Making and Mission Management. , 2014, , .		6
111	Cooperative aircraft defense from an attacking missile. , 2014, , .		36
112	Event-triggered cooperative control with general linear dynamics and communication delays. , 2014, , .		13
113	Decentralised event-triggered cooperative control with limited communication. International Journal of Control, 2013, 86, 1479-1488.	1.2	206
114	Circumnavigation of an unknown target using UAVs with range and range rate measurements. , 2013, , .		8
115	Finite-time consensus of networked Lipschitz nonlinear agents under communication constraints. , 2013, , .		4
116	Reaching consensus in the sense of probability. , 2013, , .		0
117	Column generation for a UAV assignment problem with precedence constraints. International Journal of Robust and Nonlinear Control, 2011, 21, 1421-1433.	2.1	17
118	A Multi-Team Extension of the Consensus-Based Bundle Algorithm. , 2011, , .		17
119	An extension of consensus-based auction algorithms for decentralized, time-constrained task assignment. , 2010, , .		26
120	Distributed information filtering using consensus filters. , 2009, , .		58
121	Discrete double integrator consensus. , 2008, , .		31
122	Cooperative forest fire surveillance using a team of small unmanned air vehicles. International Journal of Systems Science, 2006, 37, 351-360.	3.7	425
123	Continuous Monitoring of a Path-Constrained Moving Target by Multiple Unmanned Aerial Vehicles. Journal of Guidance, Control, and Dynamics, 0, , 1-10.	1.6	0