Margarita Chli

List of Publications by Year
in descending order

61 papers	**5,223** citations	516710 **16** h-index	642732 **23** g-index
61 all docs	**61** docs citations	**61** times ranked	**4053** citing authors

#	Article	IF	Citations
1	BRISK: Binary Robust invariant scalable keypoints. , 2011, , .		2,203
2	A robust and modular multi-sensor fusion approach applied to MAV navigation. , 2013, , .		358
3	Real-time onboard visual-inertial state estimation and self-calibration of MAVs in unknown environments. , 2012, , .		288
4	Vision-Controlled Micro Flying Robots: From System Design to Autonomous Navigation and Mapping in GPS-Denied Environments. IEEE Robotics and Automation Magazine, 2014, 21, 26-40.	2.0	219
5	Monocular Vision for Longâ€term Micro Aerial Vehicle State Estimation: A Compendium. Journal of Field Robotics, 2013, 30, 803-831.	6.0	198
6	Keyframe-Based Visual-Inertial SLAM using Nonlinear Optimization. , 0, , .		176
7	CCMâ€SLAM: Robust and efficient centralized collaborative monocular simultaneous localization and mapping for robotic teams. Journal of Field Robotics, 2019, 36, 763-781.	6.0	125
8	Multi-UAV collaborative monocular SLAM. , 2017, , .		120
9	Robust Real-Time Visual Odometry with a Single Camera and an IMU. , 2011, , .		103
10	Asynchronous Corner Detection and Tracking for Event Cameras in Real Time. IEEE Robotics and Automation Letters, 2018, 3, 3177-3184.	5.1	99
11	People detection and tracking from aerial thermal views. , 2014, , .		98
12	Only look once, mining distinctive landmarks from ConvNet for visual place recognition. , 2017, , .		90
13	Versatile distributed pose estimation and sensor self-calibration for an autonomous MAV. , 2012, , .		85
14	Learning Context Flexible Attention Model for Long-Term Visual Place Recognition. IEEE Robotics and Automation Letters, 2018, 3, 4015-4022.	5.1	73
15	GOMSF: Graph-Optimization Based Multi-Sensor Fusion for robust UAV Pose estimation. , 2018, , .		70
16	CVI-SLAMâ€"Collaborative Visual-Inertial SLAM. IEEE Robotics and Automation Letters, 2018, 3, 2762-2769.	5.1	70
17	Weaver: Hexapod robot for autonomous navigation on unstructured terrain. Journal of Field Robotics, 2018, 35, 1063-1079.	6.0	53
18	Motionâ€and Uncertaintyâ€aware Path Planning for Micro Aerial Vehicles. Journal of Field Robotics, 2014, 31, 676-698.	6.0	51

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19	Aerial Single-View Depth Completion With Image-Guided Uncertainty Estimation. IEEE Robotics and Automation Letters, 2020, 5, 1055-1062.	5.1	40
20	Visual-inertial SLAM for a small helicopter in large outdoor environments. , 2012, , .		39
21	Learning Deep Descriptors with Scale-Aware Triplet Networks. , 2018, , .		36
22	Real-Time Wide-Baseline Place Recognition Using Depth Completion. IEEE Robotics and Automation Letters, 2019, 4, 1525-1532.	5.1	32
23	Active matching for visual tracking. Robotics and Autonomous Systems, 2009, 57, 1173-1187.	5.1	29
24	Robust visual-inertial localization with weak GPS priors for repetitive UAV flights. , 2017, , .		29
25	ACE: An Efficient Asynchronous Corner Tracker for Event Cameras. , 2018, , .		29
26	Autonomous dry stone. Construction Robotics, 2020, 4, 127-140.	2.2	28
27	Inversion based direct position control and trajectory following for micro aerial vehicles. , 2013, , .		27
28	Path planning for motion dependent state estimation on micro aerial vehicles. , 2013, , .		27
29	Active Matching. Lecture Notes in Computer Science, 2008, , 72-85.	1.3	27
30	Collaborative stereo. , 2011, , .		26
31	COVINS: Visual-Inertial SLAM for Centralized Collaboration. , 2021, , .		26
32	Real-time mesh-based scene estimation for aerial inspection. , 2016, , .		23
33	SFly: Swarm of micro flying robots. , 2012, , .		21
34	Location graphs for visual place recognition. , 2015, , .		21
35	Informed Sampling Exploration Path Planner for 3D Reconstruction of Large Scenes. IEEE Robotics and Automation Letters, 2021, 6, 7893-7900.	5.1	20
36	Perception-aware Path Planning for UAVs using Semantic Segmentation. , 2020, , .		20

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37	Towards automating construction tasks: Large‑scale object mapping, segmentation, and manipulation. Journal of Field Robotics, 2021, 38, 684-699.	6.0	19
38	Scalable active matching. , 2010, , .		18
39	Real-time local 3D reconstruction for aerial inspection using superpixel expansion. , 2017, , .		17
40	VI-RPE: Visual-Inertial Relative Pose Estimation for Aerial Vehicles. IEEE Robotics and Automation Letters, 2018, 3, 2770-2777.	5.1	17
41	Autonomous navigation of hexapod robots with vision-based controller adaptation. , 2017, , .		16
42	Distributed Formation Estimation Via Pairwise Distance Measurements. IEEE Robotics and Automation Letters, 2021, 6, 3017-3024.	5.1	16
43	Full-field structural monitoring using event cameras and physics-informed sparse identification. Mechanical Systems and Signal Processing, 2020, 145, 106905.	8.0	15
44	Short-term UAV path-planning with monocular-inertial SLAM in the loop. , 2017, , .		13
45	Autonomous Aerial Inspection Using Visual-Inertial Robust Localization and Mapping. Springer Proceedings in Advanced Robotics, 2018, , 191-204.	1.3	13
46	Hough^{2}Map â€“ Iterative Event-Based Hough Transform for High-Speed Railway Mapping. IEEE Robotics and Automation Letters, 2021, 6, 2745-2752.	5.1	12
47	Automatically and efficiently inferring the hierarchical structure of visual maps. , 2009, , .		11
48	Real-time dense surface reconstruction for aerial manipulation. , 2016, , .		9
49	Asynchronous Multi-Hypothesis Tracking of Features with Event Cameras. , 2019, , .		9
50	Distributed Variable-Baseline Stereo SLAM from two UAVs. , 2021, , .		9
51	Multi-robot Coordination with Agent-Server Architecture for Autonomous Navigation in Partially Unknown Environments. , 2020, , .		9
52	On the Redundancy Detection in Keyframe-Based SLAM. , 2019, , .		7
53	Semantic-aware Active Perception for UAVs using Deep Reinforcement Learning. , 2021, , .		7
54	Loop-Closure Detection in Urban Scenes for Autonomous Robot Navigation. , 2017, , .		6

#	Article	IF	Citations
55	Diffuser: Multi-View 2D-to-3D Label Diffusion for Semantic Scene Segmentation. , 2021, , .		6
56	Collaborative stereo. , 2011, , .		5
57	Volumetric Instance-Level Semantic Mapping Via Multi-View 2D-to-3D Label Diffusion. IEEE Robotics and Automation Letters, 2022, 7, 3531-3538.	5.1	5
58	HyperSLAM: A Generic and Modular Approach to Sensor Fusion and Simultaneous Localization And Mapping in Continuous-Time. , 2020, , .		2
59	Continuous-Time Stereo-Inertial Odometry. IEEE Robotics and Automation Letters, 2022, 7, 6455-6462.	5.1	2
60	Viewpoint-Tolerant Semantic Segmentation forÂAerial Logistics. Lecture Notes in Computer Science, 2021, , 515-529.	1.3	1
61	Visual Simultaneous Localization and Mapping. , 2020, , 1-8.		0