

Sören Schwertfeger

List of Publications by Year in descending order

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Version: 2024-02-01

52
papers

799
citations

840776

11
h-index

794594

19
g-index

52
all docs

52
docs citations

52
times ranked

688
citing authors

#	ARTICLE	IF	CITATIONS
1	Online three-dimensional SLAM by registration of large planar surface segments and closed-form pose-graph relaxation. <i>Journal of Field Robotics</i> , 2010, 27, 52-84.	6.0	99
2	Safety, Security, and Rescue Missions with an Unmanned Aerial Vehicle (UAV). <i>Journal of Intelligent and Robotic Systems: Theory and Applications</i> , 2011, 64, 57-76.	3.4	98
3	A networking framework for teleoperation in safety, security, and rescue robotics. <i>IEEE Wireless Communications</i> , 2009, 16, 6-13.	9.0	48
4	RGBD-Inertial Trajectory Estimation and Mapping for Ground Robots. <i>Sensors</i> , 2019, 19, 2251.	3.8	44
5	3D forward sensor modeling and application to occupancy grid based sensor fusion. , 2007, , .		42
6	Fast 3D mapping by matching planes extracted from range sensor point-clouds. , 2009, , .		38
7	Efficient Representation in Three-Dimensional Environment Modeling for Planetary Robotic Exploration. <i>Advanced Robotics</i> , 2010, 24, 1169-1197.	1.8	38
8	16 Years of RoboCup Rescue. <i>KI - Kunstliche Intelligenz</i> , 2016, 30, 267-277.	3.2	34
9	No More Heavy Lifting: Robotic Solutions to the Container Unloading Problem. <i>IEEE Robotics and Automation Magazine</i> , 2016, 23, 94-106.	2.0	31
10	Maximum likelihood mapping with spectral image registration. , 2010, , .		27
11	Map evaluation using matched topology graphs. <i>Autonomous Robots</i> , 2016, 40, 761-787.	4.8	25
12	Evaluation of map quality by matching and scoring high-level, topological map structures. , 2013, , .		21
13	Self-Supervised Point Set Local Descriptors for Point Cloud Registration. <i>Sensors</i> , 2021, 21, 486.	3.8	20
14	Simultaneous hand-eye calibration and reconstruction. , 2017, , .		16
15	Advanced mapping robot and high-resolution dataset. <i>Robotics and Autonomous Systems</i> , 2020, 131, 103559.	5.1	15
16	Mapping with Reflection - Detection and Utilization of Reflection in 3D Lidar Scans. , 2020, , .		14
17	Evaluation of maps using fixed shapes. , 2010, , .		13
18	Using competitions to advance the development of standard test methods for response robots. , 2012, , .		13

#	ARTICLE	IF	CITATIONS
19	Advancing the State of Urban Search and Rescue Robotics Through the RoboCupRescue Robot League Competition. Springer Tracts in Advanced Robotics, 2014, , 127-142.	0.4	12
20	Surface Representations for 3D Mapping. KI - Kunstliche Intelligenz, 2010, 24, 249-254.	3.2	10
21	Using a fiducial map metric for assessing map quality in the context of RoboCup Rescue. , 2011, , .		9
22	Hierarchical topometric representation of 3D robotic maps. Autonomous Robots, 2021, 45, 755-771.	4.8	9
23	Furniture Free Mapping using 3D Lidars. , 2019, , .		8
24	3D data collection at Disaster City at the 2008 NIST Response Robot Evaluation Exercise (RREE). , 2009, , .		7
25	Improved Fourier Mellin Invariant for Robust Rotation Estimation with Omni-Cameras. , 2019, , .		7
26	Area Graph: Generation of Topological Maps using the Voronoi Diagram. , 2019, , .		7
27	Heterogeneous Multi-sensor Calibration based on Graph Optimization. , 2019, , .		7
28	The RoboCupRescue robot league: Guiding robots towards fieldable capabilities. , 2011, , .		6
29	Fast Gaussian Process Occupancy Maps. , 2018, , .		6
30	On the effects of Sampling Resolution in Improved Fourier Mellin based Registration for Underwater Mapping. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2010, 43, 617-622.	0.4	5
31	A short overview of recent advances in map evaluation. , 2012, , .		5
32	Matching Paths in Topological Maps. IFAC-PapersOnLine, 2016, 49, 224-229.	0.9	5
33	Pose Estimation for Omni-directional Cameras using Sinusoid Fitting. , 2019, , .		5
34	Incrementally Building Topology Graphs via Distance Maps. , 2019, , .		5
35	Underwater Depth Estimation for Spherical Images. Journal of Robotics, 2021, 2021, 1-12.	0.9	5
36	Matching maps based on the Area Graph. Intelligent Service Robotics, 2022, 15, 69-94.	2.6	5

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37	Fully Autonomous Operations of a Jacobs Rugbot in the RoboCup Rescue Robot League 2006. , 2007, , .		4
38	Optimized Octtree Datastructure and Access Methods for 3D Mapping. , 2007, , .		4
39	Using iFMI spectral registration for video stabilization and motion detection by an Unmanned Aerial Vehicle (UAV). , 2011, , .		4
40	Fast 2D Map Matching Based on Area Graphs. , 2019, , .		4
41	Rethinking the Fourier-Mellin Transform: Multiple Depths in the Cameraâ€™s View. Remote Sensing, 2021, 13, 1000.	4.0	4
42	Accurate Calibration of Multi-Perspective Cameras from a Generalization of the Hand-Eye Constraint. , 2022, , .		4
43	Reconnaissance and camp security missions with an Unmanned Aerial Vehicle (UAV) at the 2009 European Land Robots Trials (ELROB). , 2009, , .		3
44	Configuration-Space Flipper Planning for Rescue Robots. , 2019, , .		3
45	Configuration-Space Flipper Planning on 3D Terrain. , 2020, , .		3
46	Rotation Estimation for Omni-directional Cameras Using Sinusoid Fitting. Journal of Intelligent and Robotic Systems: Theory and Applications, 2021, 103, 1.	3.4	2
47	Improving CNN-based Planar Object Detection with Geometric Prior Knowledge. , 2020, , .		2
48	Towards Object Classification Using 3D Sensor Data. , 2008, , .		1
49	Using fiducials in 3D map evaluation. , 2015, , .		1
50	Cluster on Wheels. , 2022, , .		1
51	Editorial: Special Issue on Safety, Security, and Rescue Robotics (SSRR). Journal of Field Robotics, 2019, 36, 639-640.	6.0	0
52	Improved Visual-Inertial Localization for Low-cost Rescue Robots. IFAC-PapersOnLine, 2020, 53, 9709-9715.	0.9	0