Juan Domingo Tardós Solano

List of Publications by Year
in descending order

52 papers	16,046 citations	257450 24 h-index	526287 27 g-index
52 all docs	52 docs citations	52 times ranked	6892 citing authors

#	Article	IF	Citations
1	ORB-SLAM3: An Accurate Open-Source Library for Visual, Visual–Inertial, and Multimap SLAM. IEEE Transactions on Robotics, 2021, 37, 1874-1890.	10.3	1,265
2	DynaSLAM II: Tightly-Coupled Multi-Object Tracking and SLAM. IEEE Robotics and Automation Letters, 2021, 6, 5191-5198.	5.1	97
3	SD-DefSLAM: Semi-Direct Monocular SLAM for Deformable and Intracorporeal Scenes. , 2021, , .		11
4	Inertial-Only Optimization for Visual-Inertial Initialization. , 2020, , .		34
5	Fast and Robust Initialization for Visual-Inertial SLAM. , 2019, , .		20
6	ORBSLAM-Atlas: a robust and accurate multi-map system. , 2019, , .		33
7	Visual-Inertial Monocular SLAM With Map Reuse. IEEE Robotics and Automation Letters, 2017, 2, 796-803.	5.1	562
8	ORB-SLAM2: An Open-Source SLAM System for Monocular, Stereo, and RGB-D Cameras. IEEE Transactions on Robotics, 2017, 33, 1255-1262.	10.3	3,975
9	Real-time monocular object SLAM. Robotics and Autonomous Systems, 2016, 75, 435-449.	5.1	99
10	RoboEarth Semantic Mapping: A Cloud Enabled Knowledge-Based Approach. IEEE Transactions on Automation Science and Engineering, 2015, 12, 432-443.	5.2	84
11	ORB-SLAM: A Versatile and Accurate Monocular SLAM System. IEEE Transactions on Robotics, 2015, 31, 1147-1163.	10.3	4,585
12	Fast relocalisation and loop closing in keyframe-based SLAM. , 2014, , .		184
13	Robust Place Recognition With Stereo Sequences. IEEE Transactions on Robotics, 2012, 28, 871-885.	10.3	74
14	Bags of Binary Words for Fast Place Recognition in Image Sequences. IEEE Transactions on Robotics, 2012, 28, 1188-1197.	10.3	1,273
15	Towards semantic SLAM using a monocular camera. , 2011, , .		14
16	Real-time loop detection with bags of binary words. , 2011, , .		91
17	CI-Graph simultaneous localization and mapping for three-dimensional reconstruction of large and complex environments using a multicamera system. Journal of Field Robotics, 2010, 27, 561-586.	6.0	28
18	Robust place recognition with stereo cameras. , 2010, , .		31

#	ARTICLE	IF	CITATIONS
19	Finding good cycle constraints for large scale multi-robot SLAM. , 2009, , .		3
20	CI-Graph: An efficient approach for large scale SLAM. , 2009, , .		14
21	A comparison of SLAM algorithms based on a graph of relations. , 2009, , .		87
22	A comparison of loop closing techniques in monocular SLAM. Robotics and Autonomous Systems, 2009, 57, 1188-1197.	5.1	222
23	Underwater SLAM in manâ€made structured environments. Journal of Field Robotics, 2008, 25, 898-921.	6.0	161
24	Large-Scale 6-DOF SLAM With Stereo-in-Hand. IEEE Transactions on Robotics, 2008, 24, 946-957.	10.3	201
25	Divide and Conquer: EKF SLAM in $O(n)$. IEEE Transactions on Robotics, 2008, 24, 1107-1120.	10.3	157
26	Large-Scale SLAM Building Conditionally Independent Local Maps: Application to Monocular Vision. IEEE Transactions on Robotics, 2008, 24, 1094-1106.	10.3	92
27	An image-to-map loop closing method for monocular SLAM. , 2008, , .		41
28	Underwater SLAM in a marina environment. , 2007, , .		38
29	EKF SLAM updates in O(n) with Divide and Conquer SLAM. Proceedings - IEEE International Conference on Robotics and Automation, 2007, , .	0.0	28
30	Scalable SLAM building conditionally independent local maps. , 2007, , .		34
31	A METHOD FOR EXTRACTING LINES AND THEIR UNCERTAINTY FROM ACOUSTIC UNDERWATER IMAGES FOR SLAM. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2007, 40, 61-66.	0.4	0
32	Inertial Aiding of Inverse Depth SLAM using a Monocular Camera. Proceedings - IEEE International Conference on Robotics and Automation, 2007, , .	0.0	72
33	Robocentric map joining: Improving the consistency of EKF-SLAM. Robotics and Autonomous Systems, 2007, 55, 21-29.	5.1	179
34	Line Extraction from Mechanically Scanned Imaging Sonar. Lecture Notes in Computer Science, 2007, , 322-329.	1.3	11
35	Adaptive Scale Robust Segmentation for 2D Laser Scanner. , 2006, , .		5
36	SLAM using an Imaging Sonar for Partially Structured Underwater Environments. , 2006, , .		82

#	Article	IF	Citations
37	Localization of avalanche victims using robocentric SLAM. , 2006, , .		9
38	Global localization in SLAM in bilinear time. , 2005, , .		20
39	Hierarchical SLAM: real-time accurate mapping of large environments. , 2005, 21, 588-596.		279
40	Robust scan matching localization using ultrasonic range finders. , 2005, , .		22
41	Limits to the consistency of EKF-based SLAM. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2004, 37, 716-721.	0.4	108
42	Towards Robust Data Association and Feature Modeling for Concurrent Mapping and Localization. , 2003, , 7-20.		12
43	Robust Mapping and Localization in Indoor Environments Using Sonar Data. International Journal of Robotics Research, 2002, 21, 311-330.	8.5	416
44	Multisensor fusion for simultaneous localization and map building. IEEE Transactions on Automation Science and Engineering, 2001, 17, 908-914.	2.3	152
45	Data association in stochastic mapping using the joint compatibility test. IEEE Transactions on Automation Science and Engineering, 2001, 17, 890-897.	2.3	600
46	Structure and motion from straight line segments. Pattern Recognition, 2000, 33, 1295-1307.	8.1	11
47	Mobile Robot Localization and Map Building. , 1999, , .		114
48	Fusing range and intensity images for mobile robot localization. IEEE Transactions on Automation Science and Engineering, 1999, 15, 76-84.	2.3	78
49	The SPmap: a probabilistic framework for simultaneous localization and map building. IEEE Transactions on Automation Science and Engineering, 1999, 15, 948-952.	2.3	228
50	Experiments in Multisensor Mobile Robot Localization and Map Building. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 1998, 31, 369-374.	0.4	10
51	Explore and return: experimental validation of real-time concurrent mapping and localization. , 0, , .		85
52	Fast localization of avalanche victims using sum of Gaussians. , 0, , .		15