

Jose Neira

List of Publications by Year in descending order

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55
papers

6,727
citations

361413

20
h-index

526287

27
g-index

55
all docs

55
docs citations

55
times ranked

3973
citing authors

#	ARTICLE	IF	CITATIONS
1	Past, Present, and Future of Simultaneous Localization and Mapping: Toward the Robust-Perception Age. IEEE Transactions on Robotics, 2016, 32, 1309-1332.	10.3	2,239
2	Data association in stochastic mapping using the joint compatibility test. IEEE Transactions on Automation Science and Engineering, 2001, 17, 890-897.	2.3	600
3	DynaSLAM: Tracking, Mapping, and Inpainting in Dynamic Scenes. IEEE Robotics and Automation Letters, 2018, 3, 4076-4083.	5.1	547
4	Robust Mapping and Localization in Indoor Environments Using Sonar Data. International Journal of Robotics Research, 2002, 21, 311-330.	8.5	416
5	Hierarchical SLAM: real-time accurate mapping of large environments. , 2005, 21, 588-596.		279
6	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
7	A comparison of loop closing techniques in monocular SLAM. Robotics and Autonomous Systems, 2009, 57, 1188-1197.	5.1	222
8	Large-Scale 6-DOF SLAM With Stereo-in-Hand. IEEE Transactions on Robotics, 2008, 24, 946-957.	10.3	201
9	Robocentric map joining: Improving the consistency of EKF-SLAM. Robotics and Autonomous Systems, 2007, 55, 21-29.	5.1	179
10	Robust loop closing over time for pose graph SLAM. International Journal of Robotics Research, 2013, 32, 1611-1626.	8.5	165
11	Underwater SLAM in man-made structured environments. Journal of Field Robotics, 2008, 25, 898-921.	6.0	161
12	Divide and Conquer: EKF SLAM in $\mathcal{O}(n)$. IEEE Transactions on Robotics, 2008, 24, 1107-1120.	10.3	157
13	Multisensor fusion for simultaneous localization and map building. IEEE Transactions on Automation Science and Engineering, 2001, 17, 908-914.	2.3	152
14	Limits to the consistency of EKF-based SLAM. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2004, 37, 716-721.	0.4	108
15	DynaSLAM II: Tightly-Coupled Multi-Object Tracking and SLAM. IEEE Robotics and Automation Letters, 2021, 6, 5191-5198.	5.1	97
16	Explore and return: experimental validation of real-time concurrent mapping and localization. , 0, , .		85
17	SLAM using an Imaging Sonar for Partially Structured Underwater Environments. , 2006, , .		82
18	Fusing range and intensity images for mobile robot localization. IEEE Transactions on Automation Science and Engineering, 1999, 15, 76-84.	2.3	78

#	ARTICLE	IF	CITATIONS
19	Robust Place Recognition With Stereo Sequences. IEEE Transactions on Robotics, 2012, 28, 871-885.	10.3	74
20	Real-time 6-DOF multi-session visual SLAM over large-scale environments. Robotics and Autonomous Systems, 2013, 61, 1144-1158.	5.1	73
21	Simultaneous map building and localization for mobile robots: a multisensor fusion approach. , 0, , .		58
22	An image-to-map loop closing method for monocular SLAM. , 2008, , .		41
23	On the Importance of Uncertainty Representation in Active SLAM. IEEE Transactions on Robotics, 2018, 34, 829-834.	10.3	40
24	Underwater SLAM in a marina environment. , 2007, , .		38
25	Guest Editorial Special Issue on Visual SLAM. IEEE Transactions on Robotics, 2008, 24, 929-931.	10.3	36
26	Robust place recognition with stereo cameras. , 2010, , .		31
27	EKF SLAM updates in $O(n)$ with Divide and Conquer SLAM. Proceedings - IEEE International Conference on Robotics and Automation, 2007, , .	0.0	28
28	Robust Loop Closing Over Time. , 0, , .		25
29	Realizing, reversing, recovering: Incremental robust loop closing over time using the iRRR algorithm. , 2012, , .		23
30	SLAM in with the Combined Kalman-Information Filter. Robotics and Autonomous Systems, 2010, 58, 1207-1219.	5.1	22
31	Robust graph SLAM back-ends: A comparative analysis. , 2014, , .		22
32	An Online Sparsity-Cognizant Loop-Closure Algorithm for Visual Navigation. , 0, , .		21
33	Global localization in SLAM in bilinear time. , 2005, , .		20
34	Empty Cities: A Dynamic-Object-Invariant Space for Visual SLAM. IEEE Transactions on Robotics, 2021, 37, 433-451.	10.3	19
35	Optimal local map size for EKF-based SLAM. , 2006, , .		18
36	On the monotonicity of optimality criteria during exploration in active SLAM. , 2015, , .		17

#	ARTICLE	IF	CITATIONS
37	Relocation using laser and vision. , 2004, , .		16
38	Fast minimum uncertainty search on a graph map representation. , 2012, , .		15
39	Empty Cities: Image Inpainting for a Dynamic-Object-Invariant Space. , 2019, , .		13
40	Towards Robust Data Association and Feature Modeling for Concurrent Mapping and Localization. , 2003, , 7-20.		12
41	Line Extraction from Mechanically Scanned Imaging Sonar. Lecture Notes in Computer Science, 2007, , 322-329.	1.3	11
42	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
43	Localization of avalanche victims using robocentric SLAM. , 2006, , .		9
44	Sparse optimization for robust and efficient loop closing. Robotics and Autonomous Systems, 2017, 93, 13-26.	5.1	9
45	SLAM in $O(\log n)$ with the Combined Kalman - Information filter. , 2009, , .		7
46	Place Recognition using Near and Far Visual Information. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2011, 44, 6822-6828.	0.4	7
47	Place categorization using sparse and redundant representations. , 2014, , .		6
48	Go straight, turn right: Pose graph reduction through trajectory segmentation using line segments. , 2013, , .		4
49	Finding good cycle constraints for large scale multi-robot SLAM. , 2009, , .		3
50	Goal-directed perception in multisensor object recognition systems. , 0, , .		2
51	Editorial: Visual navigation and mapping outdoors. Journal of Field Robotics, 2010, 27, 509-510.	6.0	1
52	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
53	Guest editorial: selected papers from Robotics: Science&Systems&2008. Autonomous Robots, 2009, 26, 99-101.	4.8	0
54	Inside data association. Robotics and Autonomous Systems, 2009, 57, 1155-1156.	5.1	0

#	ARTICLE	IF	CITATIONS
55	Special Issue on the 2015 Robotics: Science & Systems Conference. International Journal of Robotics Research, 2016, 35, 1679-1680.	8.5	0