FranÃ§ois Pomerleau

List of Publications by Year
in descending order

54 papers	2,430 citations	567281 15 h-index	501196 28 g-index
55 all docs	55 docs citations	55 times ranked	2176 citing authors

#	Article	IF	Citations
1	Kilometer-scale autonomous navigation in subarctic forests: challenges and lessons learned. , 2022, 2, 1628-1660.		5
2	Large-Scale 3D Mapping of Subarctic Forests. Springer Proceedings in Advanced Robotics, 2021, , 261-275.	1.3	7
3	Mapping in unstructured natural environment: a sensor fusion framework for wearable sensor suites. SN Applied Sciences, 2021, 3, 1.	2.9	6
4	Lidar Scan Registration Robust to Extreme Motions. , 2021, , .		3
5	Accurate outdoor ground truth based on total stations. , 2021, , .		4
6	Multi-session Lake-Shore Monitoring in Visually Challenging Conditions. Springer Proceedings in Advanced Robotics, 2021, , 1-14.	1.3	2
7	Dynamic Lambda-Field: A Counterpart of the Bayesian Occupancy Grid for Risk Assessment in Dynamic Environments. , 2021, , .		4
8	Radio propagation models for differential GNSS based on dense point clouds. Journal of Field Robotics, 2020, 37, 1347-1362.	6.0	5
9	Evaluation of Skid-Steering Kinematic Models for Subarctic Environments. , 2020, , .		9
10	Automatic threeâ€dimensional mapping for tree diameter measurements in inventory operations. Journal of Field Robotics, 2020, 37, 1328-1346.	6.0	11
11	Geometry Preserving Sampling Method Based on Spectral Decomposition for Large-Scale Environments. Frontiers in Robotics and AI, 2020, 7, 572054.	3.2	10
12	DARPA Subterranean Challenge: Multi-robotic Exploration of Underground Environments. Lecture Notes in Computer Science, 2020, , 274-290.	1.3	39
13	CELLO-3D: Estimating the Covariance of ICP in the Real World. , 2019, , .		28
14	Lidar Measurement Bias Estimation via Return Waveform Modelling in a Context of 3D Mapping. , 2019, , .		22
15	Analysis of Robust Functions for Registration Algorithms. , 2019, , .		23
16	Lambda-Field: A Continuous Counterpart of the Bayesian Occupancy Grid for Risk Assessment. , 2019, , .		7
17	Field Deployment of the Tethered Robotic eXplorer to Map Extremely Steep Terrain. Springer Proceedings in Advanced Robotics, 2018, , 303-317.	1.3	8
18	Developing and deploying a tethered robot to map extremely steep terrain. Journal of Field Robotics, 2018, 35, 1327-1341.	6.0	9

#	Article	IF	Citations
19	Learning a Bias Correction for Lidar-Only Motion Estimation. , 2018, , .		19
20	Editorial: Special Issue on Field and Service Robotics. Journal of Field Robotics, 2017, 34, 3-4.	6.0	0
21	Adaptive continuousâ€space informative path planning for online environmental monitoring. Journal of Field Robotics, 2017, 34, 1427-1449.	6.0	71
22	TSLAM: Tethered simultaneous localization and mapping for mobile robots. International Journal of Robotics Research, 2017, 36, 1363-1386.	8.5	14
23	Expanding the Limits of Visionâ€based Localization for Longâ€term Routeâ€following Autonomy. Journal of Field Robotics, 2017, 34, 98-122.	6.0	25
24	The line leading the blind: Towards nonvisual localization and mapping for tethered mobile robots. , 2016, , .		5
25	Light at the End of the Tunnel: High-Speed LiDAR-Based Train Localization in Challenging Underground Environments. , 2016, , .		16
26	System Design of a Tethered Robotic Explorer (TReX) for 3D Mapping of Steep Terrain and Harsh Environments. Springer Tracts in Advanced Robotics, 2016, , 267-281.	0.4	15
27	In the Dead of Winter: Challenging Vision-Based Path Following in Extreme Conditions. Springer Tracts in Advanced Robotics, 2016, , 563-576.	0.4	6
28	A Review of Point Cloud Registration Algorithms for Mobile Robotics. Foundations and Trends in Robotics, 2015, 4, 1-104.	6.9	425
29	Lightingâ€invariant Adaptive Route Following Using Iterative Closest Point Matching. Journal of Field Robotics, 2015, 32, 534-564.	6.0	33
30	Robust Data Fusion of Multimodal Sensory Information for Mobile Robots. Journal of Field Robotics, 2015, 32, 447-473.	6.0	50
31	Relaxing the planar assumption: 3D state estimation for an autonomous surface vessel. International Journal of Robotics Research, 2015, 34, 1604-1621.	8.5	7
32	Eyes in the Back of Your Head: Robust Visual Teach &amp; Repeat Using Multiple Stereo Cameras. , 2015, , .		6
33	Designing, developing, and deploying systems to support humanâ€"robot teams in disaster response. Advanced Robotics, 2014, 28, 1547-1570.	1.8	54
34	Long-term 3D map maintenance in dynamic environments. , 2014, , .		108
35	Fully autonomous focused exploration for robotic environmental monitoring. , 2014, , .		42
36	Experience in System Design for Human-Robot Teaming in Urban Search and Rescue. Springer Tracts in Advanced Robotics, 2014, , 111-125.	0.4	61

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37	3D path planning and execution for search and rescue ground robots. , 2013, , .		55
38	Comparing ICP variants on real-world data sets. Autonomous Robots, 2013, 34, 133-148.	4.8	567
39	Shortâ€term displacement of <i>Planktothrix rubescens</i> (cyanobacteria) in a preâ€alpine lake observed using an autonomous sampling platform. Limnology and Oceanography, 2013, 58, 1892-1906.	3.1	28
40	The role of homing in visual topological navigation. , 2012, , .		22
41	Scale-only visual homing from an omnidirectional camera. , 2012, , .		24
42	A Markov semi-supervised clustering approach and its application in topological map extraction. , 2012, , .		28
43	Challenging data sets for point cloud registration algorithms. International Journal of Robotics Research, 2012, 31, 1705-1711.	8.5	165
44	Normal estimation for pointcloud using GPU based sparse tensor voting. , 2012, , .		28
45	Tensor-voting-based navigation for robotic inspection of 3D surfaces using lidar point clouds. International Journal of Robotics Research, 2012, 31, 1465-1488.	8.5	18
46	Noise characterization of depth sensors for surface inspections. , 2012, , .		34
47	Autonomous Inland Water Monitoring: Design and Application of a Surface Vessel. IEEE Robotics and Automation Magazine, 2012, 19, 62-72.	2.0	62
48	Tracking a depth camera: Parameter exploration for fast ICP. , 2011, , .		4
49	Threeâ€dimensional localization for the MagneBike inspection robot. Journal of Field Robotics, 2011, 28, 180-203.	6.0	28
50	Tracking a depth camera: Parameter exploration for fast ICP. , 2011, , .		66
51	Exploratory design and evaluation of a homecare teleassistive mobile robotic system. Mechatronics, 2010, 20, 751-766.	3.3	51
52	MagneBike: Compact magnetic wheeled robot for power plant inspection. , 2010, , .		12
53	Relative Motion Threshold for Rejection in ICP Registration. Springer Tracts in Advanced Robotics, 2010, , 229-238.	0.4	10
54	Egocentric and exocentric teleoperation interface using real-time, 3D video projection. , 2009, , .		43