

# Paul T Furgale

## List of Publications by Year in descending order

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Version: 2024-02-01

42  
papers

3,538  
citations

471509

17  
h-index

610901

24  
g-index

43  
all docs

43  
docs citations

43  
times ranked

2520  
citing authors

#	ARTICLE	IF	CITATIONS
1	Keyframe-based visual-inertial odometry using nonlinear optimization. <i>International Journal of Robotics Research</i> , 2015, 34, 314-334.	8.5	1,224
2	Unified temporal and spatial calibration for multi-sensor systems. , 2013, , .		439
3	Visual teach and repeat for long-range rover autonomy. <i>Journal of Field Robotics</i> , 2010, 27, 534-560.	6.0	195
4	3D visual perception for self-driving cars using a multi-camera system: Calibration, mapping, localization, and obstacle detection. <i>Image and Vision Computing</i> , 2017, 68, 14-27.	4.5	147
5	Continuous-time batch estimation using temporal basis functions. , 2012, , .		145
6	Long-term 3D map maintenance in dynamic environments. , 2014, , .		108
7	Driving on Point Clouds: Motion Planning, Trajectory Optimization, and Terrain Assessment in Generic Nonplanar Environments. <i>Journal of Field Robotics</i> , 2017, 34, 940-984.	6.0	98
8	OpenGV: A unified and generalized approach to real-time calibrated geometric vision. , 2014, , .		95
9	Rolling Shutter Camera Calibration. , 2013, , .		91
10	Toward automated driving in cities using close-to-market sensors: An overview of the V-Charge Project. , 2013, , .		85
11	Self-supervised calibration for robotic systems. , 2013, , .		75
12	Summary Maps for Lifelong Visual Localization. <i>Journal of Field Robotics</i> , 2016, 33, 561-590.	6.0	73
13	Pose estimation using linearized rotations and quaternion algebra. <i>Acta Astronautica</i> , 2011, 68, 101-112.	3.2	56
14	Using multi-camera systems in robotics: Efficient solutions to the NPnP problem. , 2013, , .		53
15	Continuous-time batch trajectory estimation using temporal basis functions. <i>International Journal of Robotics Research</i> , 2015, 34, 1688-1710.	8.5	49
16	The Devon Island rover navigation dataset. <i>International Journal of Robotics Research</i> , 2012, 31, 707-713.	8.5	48
17	Gaussian Process Gauss-Newton for non-parametric simultaneous localization and mapping. <i>International Journal of Robotics Research</i> , 2013, 32, 507-525.	8.5	43
18	Long-range rover localization by matching LIDAR scans to orbital elevation maps. <i>Journal of Field Robotics</i> , 2010, 27, 344-370.	6.0	40

#	ARTICLE	IF	CITATIONS
19	Infrastructure-based calibration of a multi-camera rig. , 2014, , .		35
20	Lightingâ€invariant Visual Teach and Repeat Using Appearanceâ€based Lidar. Journal of Field Robotics, 2013, 30, 254-287.	6.0	34
21	Sun Sensor Navigation for Planetary Rovers: Theory and Field Testing. IEEE Transactions on Aerospace and Electronic Systems, 2011, 47, 1631-1647.	4.7	33
22	Lightingâ€invariant Adaptive Route Following Using Iterative Closest Point Matching. Journal of Field Robotics, 2015, 32, 534-564.	6.0	33
23	Leveraging Imageâ€based Localization for Infrastructureâ€based Calibration of a Multiâ€camera Rig. Journal of Field Robotics, 2015, 32, 775-802.	6.0	32
24	Towards appearance-based methods for lidar sensors. , 2011, , .		29
25	Field testing of visual odometry aided by a sun sensor and inclinometer. Journal of Field Robotics, 2012, 29, 426-444.	6.0	28
26	Online self-calibration for robotic systems. International Journal of Robotics Research, 2016, 35, 357-380.	8.5	27
27	Visual Teach and Repeat using appearance-based lidar. , 2012, , .		25
28	Stereo mapping and localization for long-range path following on rough terrain. , 2010, , .		22
29	Visual odometry aided by a sun sensor and inclinometer. , 2011, , .		19
30	Gaussian Process Gauss-Newton: Non-Parametric State Estimation. , 2012, , .		18
31	Towards lighting-invariant visual navigation: An appearance-based approach using scanning laser-rangefinders. Robotics and Autonomous Systems, 2013, 61, 836-852.	5.1	18
32	Field Testing of an Integrated Surface/Subsurface Modeling Technique for Planetary Exploration. International Journal of Robotics Research, 2010, 29, 1529-1549.	8.5	17
33	Continuous-Time Estimation of Attitude Using B-Splines on Lie Groups. Journal of Guidance, Control, and Dynamics, 2016, 39, 242-261.	2.8	17
34	Spatio-temporal laser to visual/inertial calibration with applications to hand-held, large scale scanning. , 2014, , .		16
35	Into Darkness: Visual Navigation Based on a Lidar-Intensity-Image Pipeline. Springer Tracts in Advanced Robotics, 2016, , 487-504.	0.4	15
36	Sun sensing for planetary rover navigation. , 2009, , .		14

#	ARTICLE	IF	CITATIONS
37	Field testing of a rover guidance, navigation, and control architecture to support a ground-ice prospecting mission to Mars. <i>Robotics and Autonomous Systems</i> , 2011, 59, 472-488.	5.1	12
38	Field testing of robotic technologies to support ground ice prospecting in martian polygonal terrain. <i>Planetary and Space Science</i> , 2010, 58, 671-681.	1.7	9
39	Exploiting Reusable Paths in Mobile Robotics: Benefits and Challenges for Long-term Autonomy. , 2012, , .		7
40	Visual path following on a manifold in unstructured three-dimensional terrain. , 2010, , .		4
41	Rover-Based Surface and Subsurface Modeling for Planetary Exploration. <i>Springer Tracts in Advanced Robotics</i> , 2010, , 499-508.	0.4	3
42	Evaluation of fisheye-camera based visual multi-session localization in a real-world scenario. , 2013, , .		2