Rudolph Triebel

List of Publications by Year
in descending order

75	2,004	566801 15	377514 34
papers	citations	h-index	g-index

77	77	77	1507
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Multi-Level Surface Maps for Outdoor Terrain Mapping and Loop Closing. , 2006, , .		246
2	Implicit 3D Orientation Learning for 6D Object Detection from RGB Images. Lecture Notes in Computer Science, 2018, , 712-729.	1.0	237
3	SPENCER: A Socially Aware Service Robot for Passenger Guidance and Help in Busy Airports. Springer Tracts in Advanced Robotics, 2016, , 607-622.	0.3	157
4	Supervised semantic labeling of places using information extracted from sensor data. Robotics and Autonomous Systems, 2007, 55, 391-402.	3.0	132
5	An Efficient Extension to Elevation Maps for Outdoor Terrain Mapping and Loop Closing. International Journal of Robotics Research, 2007, 26, 217-230.	5.8	127
6	Contact-GraspNet: Efficient 6-DoF Grasp Generation in Cluttered Scenes. , 2021, , .		94
7	Toward automated driving in cities using close-to-market sensors: An overview of the V-Charge Project. , 2013, , .		85
8	Augmented Autoencoders: Implicit 3D Orientation Learning for 6D Object Detection. International Journal of Computer Vision, 2020, 128, 714-729.	10.9	79
9	Monte Carlo localization in outdoor terrains using multilevel surface maps. Journal of Field Robotics, 2008, 25, 346-359.	3.2	67
10	Multi-Path Learning for Object Pose Estimation Across Domains. , 2020, , .		51
11	Robust 3D scan point classification using associative Markov networks. , 0, , .		46
12	The ARCHES Space-Analogue Demonstration Mission: Towards Heterogeneous Teams of Autonomous Robots for Collaborative Scientific Sampling in Planetary Exploration. IEEE Robotics and Automation Letters, 2020, 5, 5315-5322.	3.3	46
13	Using Hierarchical EM to Extract Planes from 3D Range Scans. , 0, , .		30
14	Towards Mapping of Cities. Proceedings - IEEE International Conference on Robotics and Automation, 2007, , .	0.0	28
15	Multiclass Multimodal Detection and Tracking in Urban Environments. International Journal of Robotics Research, 2010, 29, 1498-1515.	5.8	28
16	Visual-Inertial Telepresence for Aerial Manipulation. , 2020, , .		26
17	Introspective classification for robot perception. International Journal of Robotics Research, 2016, 35, 743-762.	5.8	25
18	Knowing when we don't know: Introspective classification for mission-critical decision making. , 2013, , .		24

#	Article	IF	Citations
19	Awareness of Road Scene Participants for Autonomous Driving. , 2012, , 1383-1432.		24
20	Two different tools for three-dimensional mapping: DE-based scan matching and feature-based loop detection. Robotica, 2014, 32, 19-41.	1.3	23
21	Optimal Intrinsic Descriptors for Non-Rigid Shape Analysis. , 2014, , .		21
22	Multimodal detection and tracking of pedestrians in urban environments with explicit ground plane extraction. , 2008, , .		20
23	SRT3D: A Sparse Region-Based 3D Object Tracking Approach for the Real World. International Journal of Computer Vision, 2022, 130, 1008-1030.	10.9	19
24	Applying self-supervised learning for semantic cloud segmentation of all-sky images. Atmospheric Measurement Techniques, 2022, 15, 797-809.	1.2	19
25	The MADMAX data set for visualâ€inertial rover navigation on Mars. Journal of Field Robotics, 2021, 38, 833-853.	3.2	18
26	Improving plane extraction from 3D data by fusing laser data and vision. , 2005, , .		17
27	Unknown Object Segmentation from Stereo Images. , 2021, , .		17
28	Semantic Labeling of Indoor Environments from 3D RGB Maps. , 2018, , .		16
29	From Evaluation to Verification: Towards Task-oriented Relevance Metrics for Pedestrian Detection in Safety-critical Domains. , 2021, , .		16
30	Information-Driven Direct RGB-D Odometry. , 2020, , .		15
31	Relocalization With Submaps: Multi-Session Mapping for Planetary Rovers Equipped With Stereo Cameras. IEEE Robotics and Automation Letters, 2020, 5, 580-587.	3.3	15
32	Semantic categorization of outdoor scenes with uncertainty estimates using multi-class gaussian process classification. , 2012, , .		14
33	Non-Iterative Vision-Based Interpolation of 3D Laser Scans. Studies in Computational Intelligence, 2007, , 83-90.	0.7	14
34	Bayesian on-line learning of driving behaviors. , 2011, , .		13
35	Driven Learning for Driving: How Introspection Improves Semantic Mapping. Springer Tracts in Advanced Robotics, 2016, , 449-465.	0.3	13
36	3D Scene Reconstruction from a Single Viewport. Lecture Notes in Computer Science, 2020, , 51-67.	1.0	12

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37	ARDEAâ€"An MAV with skills for future planetary missions. Journal of Field Robotics, 2020, 37, 515-551.	3.2	11
38	A Sparse Gaussian Approach to Region-Based 6DoF Object Tracking. Lecture Notes in Computer Science, 2021, , 666-682.	1.0	10
39	Non-rigid 3D Shape Retrieval via Large Margin Nearest Neighbor Embedding. Lecture Notes in Computer Science, 2016, , 327-342.	1.0	10
40	Exploiting Repetitive Object Patterns for Model Compression and Completion. Lecture Notes in Computer Science, 2010, , 296-309.	1.0	10
41	Stream-based Active Learning for efficient and adaptive classification of 3D objects. , 2016, , .		9
42	Unsupervised discovery of repetitive objects. , 2010, , .		8
43	Multiclass Multimodal Detection and Tracking in Urban Environmentsâ€‰â€†. Springer Tracts in Advanced Robotics, 2010, , 125-135.	0.3	8
44	Active Monte Carlo Localization in Outdoor Terrains Using Multi-level Surface Maps. Informatik Aktuell, 2007, , 29-35.	0.4	7
45	Monte Carlo Localization in Outdoor Terrains Using Multi-Level Surface Maps. Springer Tracts in Advanced Robotics, 2008, , 213-222.	0.3	6
46	Gaussian Process Gradient Maps for Loop-Closure Detection in Unstructured Planetary Environments. , 2020, , .		6
47	Learning to Localize in New Environments from Synthetic Training Data. , 2021, , .		6
48	Challenges of SLAM in Extremely Unstructured Environments: The DLR Planetary Stereo, Solid-State LiDAR, Inertial Dataset. IEEE Robotics and Automation Letters, 2022, 7, 8721-8728.	3.3	6
49	Experience-based optimization of robotic perception. , 2017, , .		5
50	Selecting CNN features for online learning of 3D objects. , 2017, , .		5
51	Persistent Anytime Learning of Objects from Unseen Classes. , 2018, , .		5
52	Visual Repetition Sampling for Robot Manipulation Planning. , 2019, , .		5
53	The MMX Rover on Phobos: The Preliminary Design of the DLR Autonomous Navigation Experiment. , 2021, , .		5
54	Active online confidence boosting for efficient object classification. , 2015, , .		4

#	Article	IF	Citations
55	Active Online Learning for Interactive Segmentation Using Sparse Gaussian Processes. Lecture Notes in Computer Science, 2014, , 641-652.	1.0	4
56	Robust MUSIC-Based Sound Source Localization in Reverberant and Echoic Environments. , 2020, , .		4
57	Inferring the semantics of direction signs in public places. , 2010, , .		3
58	Key technologies for intelligent and safer cars - From motion estimation to predictive collision avoidance. , 2010, , .		3
59	A Bayesian Approach to Learning 3D Representations of Dynamic Environments. Springer Tracts in Advanced Robotics, 2014, , 461-475.	0.3	3
60	Detecting pedestrians at very small scales. , 2009, , .		2
61	Semi-supervised online learning for efficient classification of objects in 3D data streams. , 2015, , .		2
62	Incremental Semi-Supervised Learning from Streams for Object Classification. , 2018, , .		2
63	Recovering the Shape of Objects in 3D Point Clouds with Partial Occlusions. Springer Tracts in Advanced Robotics, 2008, , 13-22.	0.3	2
64	Collective Classification for Labeling of Places and Objects in 2D and 3D Range Data. Studies in Classification, Data Analysis, and Knowledge Organization, 2008, , 293-300.	0.1	2
65	â€œWhatâ€™s This?â€• Learning to Segment Unknown Objects from Manipulation Sequences. , 2021, , .		2
66	Exploration of Large Outdoor Environments Using Multi-Criteria Decision Making. , 2021, , .		2
67	6DoF Pose Estimation for Industrial Manipulation Based on Synthetic Data. Springer Proceedings in Advanced Robotics, 2020, , 675-684.	0.9	2
68	Multi-Modal Loop Closing in Unstructured Planetary Environments with Visually Enriched Submaps. , 2021, , .		2
69	Model for Multi-View Residual Covariances Based on Perspective Deformation. IEEE Robotics and Automation Letters, 2022, 7, 1960-1967.	3.3	2
70	Introspective Robot Perception Using Smoothed Predictions fromÂBayesian Neural Networks. Springer Proceedings in Advanced Robotics, 2022, , 660-675.	0.9	2
71	A method for hand-eye and camera-to-camera calibration for limited fields of view. , 2017, , .		1
72	Appearance-Based Along-Route Localization for Planetary Missions. , 2018, , .		1

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73	Environment-Adaptive Learning: How Clustering Helps to Obtain Good Training Data. Lecture Notes in Computer Science, 2014, , 68-79.	1.0	1
74	Simultaneous Calibration and Mapping. Springer Proceedings in Advanced Robotics, 2020, , 791-800.	0.9	0
75	Learning-Based Matching of 3D Submaps from Dense Stereo for Planetary-Like Environments. , 2021, , .		0