

# Andreas Zell

## List of Publications by Year in descending order

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125  
papers

3,388  
citations

136950

32  
h-index

206112

48  
g-index

125  
all docs

125  
docs citations

125  
times ranked

4191  
citing authors

#	ARTICLE	IF	CITATIONS
1	Seeing Implicit Neural Representations as Fourier Series. , 2022, , .		15
2	MobileStereoNet: Towards Lightweight Deep Networks for Stereo Matching. , 2022, , .		25
3	Relative Camera Pose Estimation using Synthetic Data with Domain Adaptation via Cycle-Consistent Adversarial Networks. Journal of Intelligent and Robotic Systems: Theory and Applications, 2021, 102, 1.	3.4	2
4	Real-Time Graph-Based SLAM with Occupancy Normal Distributions Transforms. , 2020, , .		9
5	Simultaneous Collaborative Mapping Based on Low-Bandwidth Communication. , 2019, , .		3
6	Sub-Pixel Resolution Techniques for Ray Casting in Low-Resolution Occupancy Grid Maps. , 2019, , .		3
7	Markerless Racket Pose Detection and Stroke Classification Based on Stereo Vision for Table Tennis Robots. , 2019, , .		8
8	Collaborative Mapping with Pose Uncertainties using different Radio Frequencies and Communication Modules. , 2019, , .		1
9	MuSe: Multi-Sensor Integration Strategies Applied to Sequential Monte Carlo Methods. , 2019, , .		2
10	Efficient Map Representations for Multi-Dimensional Normal Distributions Transforms. , 2018, , .		9
11	Robust Real-Time 3D Person Detection for Indoor and Outdoor Applications. , 2018, , .		2
12	A Distributed Control Approach to Formation Balancing and Maneuvering of Multiple Multirotor UAVs. IEEE Transactions on Robotics, 2018, 34, 870-882.	10.3	52
13	Multi-camera visual SLAM for autonomous navigation of micro aerial vehicles. Robotics and Autonomous Systems, 2017, 93, 116-134.	5.1	72
14	Xenobiotic CAR Activators Induce Dlk1-Dio3 Locus Noncoding RNA Expression in Mouse Liver. Toxicological Sciences, 2017, 158, 367-378.	3.1	7
15	Robust nonlinear control approach to nontrivial maneuvers and obstacle avoidance for quadrotor UAV under disturbances. Robotics and Autonomous Systems, 2017, 98, 317-332.	5.1	36
16	Outdoor obstacle avoidance based on hybrid visual stereo SLAM for an autonomous quadrotor MAV. , 2017, , .		6
17	Kinematic model based visual odometry for differential drive vehicles. , 2017, , .		1
18	Path following control of skid-steered wheeled mobile robots at higher speeds on different terrain types. , 2017, , .		13

#	ARTICLE	IF	CITATIONS
19	Recurrent Neural Networks for fast and robust vibration-based ground classification on mobile robots. , 2016, , .		23
20	Tumor promotion and inhibition by phenobarbital in livers of conditional Apc-deficient mice. Archives of Toxicology, 2016, 90, 1481-1494.	4.2	19
21	Robust Onboard Visual SLAM for Autonomous MAVs. Advances in Intelligent Systems and Computing, 2016, , 361-373.	0.6	3
22	ZBIT Bioinformatics Toolbox: A Web-Platform for Systems Biology and Expression Data Analysis. PLoS ONE, 2016, 11, e0149263.	2.5	25
23	A robust nonlinear controller for nontrivial quadrotor maneuvers: Approach and verification. , 2015, , .		8
24	DCTAM: Drift-corrected tracking and mapping for autonomous micro aerial vehicles. , 2015, , .		4
25	A fast dense stereo matching algorithm with an application to 3D occupancy mapping using quadcopters. , 2015, , .		2
26	Influence of Feature Encoding and Choice of Classifier on Disease Risk Prediction in Genome-Wide Association Studies. PLoS ONE, 2015, 10, e0135832.	2.5	15
27	ToxDBScan: Large-Scale Similarity Screening of Toxicological Databases for Drug Candidates. International Journal of Molecular Sciences, 2014, 15, 19037-19055.	4.1	7
28	Visual SLAM for autonomous MAVs with dual cameras. , 2014, , .		12
29	Real time person detection and tracking by mobile robots using RGB-D images. , 2014, , .		6
30	Integrated enrichment analysis and pathway-centered visualization of metabolomics, proteomics, transcriptomics, and genomics data by using the InCroMAP software. Journal of Chromatography B: Analytical Technologies in the Biomedical and Life Sciences, 2014, 966, 77-82.	2.3	44
31	Framework for Autonomous On-board Navigation with the AR.Drone. Journal of Intelligent and Robotic Systems: Theory and Applications, 2014, 73, 401-412.	3.4	50
32	On-Board Dual-Stereo-Vision for the Navigation of an Autonomous MAV. Journal of Intelligent and Robotic Systems: Theory and Applications, 2014, 74, 1-16.	3.4	47
33	Autonomous Landing of MAVs on an Arbitrarily Textured Landing Site Using Onboard Monocular Vision. Journal of Intelligent and Robotic Systems: Theory and Applications, 2014, 74, 27-43.	3.4	46
34	A Cross-Platform Comparison of Visual Marker Based Approaches for Autonomous Flight of Quadcopters. Journal of Intelligent and Robotic Systems: Theory and Applications, 2014, 73, 349-359.	3.4	7
35	Automated Label-free Quantification of Metabolites from Liquid Chromatographyâ€“Mass Spectrometry Data. Molecular and Cellular Proteomics, 2014, 13, 348-359.	3.8	74
36	Cross-Platform Toxicogenomics for the Prediction of Non-Genotoxic Hepatocarcinogenesis in Rat. PLoS ONE, 2014, 9, e97640.	2.5	44

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37	Optimization and visualization of the edge weights in optimal assignment methods for virtual screening. <i>BioData Mining</i> , 2013, 6, 7.	4.0	1
38	Circulating Lysophosphatidylcholines Are Markers of a Metabolically Benign Nonalcoholic Fatty Liver. <i>Diabetes Care</i> , 2013, 36, 2331-2338.	8.6	100
39	Onboard monocular vision for landing of an MAV on a landing site specified by a single reference image. , 2013, , .		9
40	Framework for autonomous onboard navigation with the AR.Drone. , 2013, , .		17
41	Loop closure detection using depth images. , 2013, , .		3
42	An Onboard Monocular Vision System for Autonomous Takeoff, Hovering and Landing of a Micro Aerial Vehicle. <i>Journal of Intelligent and Robotic Systems: Theory and Applications</i> , 2013, 69, 499-515.	3.4	143
43	Geometric arrangement and operation mode adjustment in low-enthalpy geothermal borehole fields for heating. <i>Energy</i> , 2013, 49, 434-443.	8.8	49
44	Identification of Dlk1-Dio3 Imprinted Gene Cluster Noncoding RNAs as Novel Candidate Biomarkers for Liver Tumor Promotion. <i>Toxicological Sciences</i> , 2013, 131, 375-386.	3.1	62
45	InCroMAP: integrated analysis of cross-platform microarray and pathway data. <i>Bioinformatics</i> , 2013, 29, 506-508.	4.1	33
46	On-board dual-stereo-vision for autonomous quadrotor navigation. , 2013, , .		18
47	Robust real-time detection of multiple balls on a mobile robot. , 2013, , .		3
48	Following a quadrotor with another quadrotor using onboard vision. , 2013, , .		8
49	Real time face tracking and pose estimation using an adaptive correlation filter for human-robot interaction. , 2013, , .		6
50	Efficient onboard RGBD-SLAM for autonomous MAVs. , 2013, , .		35
51	Parkinson's disease: dopaminergic nerve cell model is consistent with experimental finding of increased extracellular transport of $\alpha$ -synuclein. <i>BMC Neuroscience</i> , 2013, 14, 136.	1.9	16
52	Evaluation of the performance of evolutionary algorithms for optimization of low-enthalpy geothermal heating plants. , 2012, , .		5
53	Path following with passive UHF RFID received signal strength in unknown environments. , 2012, , .		7
54	Pathway-based visualization of cross-platform microarray datasets. <i>Bioinformatics</i> , 2012, 28, 3021-3026.	4.1	10

#	ARTICLE	IF	CITATIONS
55	Visual terrain classification by flying robots. , 2012, , .		13
56	Use of support vector machines for disease risk prediction in genome-wide association studies: Concerns and opportunities. Human Mutation, 2012, 33, 1708-1718.	2.5	42
57	Visual tracking and following of a quadrocopter by another quadrocopter. , 2012, , .		21
58	A new feature detector and stereo matching method for accurate high-performance sparse stereo matching. , 2012, , .		16
59	Optimization of energy extraction for closed shallow geothermal systems using linear programming. Geothermics, 2012, 43, 57-65.	3.4	68
60	Using depth in visual simultaneous localisation and mapping. , 2012, , .		27
61	Markerless Visual Control of a Quad-Rotor Micro Aerial Vehicle by Means of On-Board Stereo Processing. Informatik Aktuell, 2012, , 11-20.	0.6	16
62	Linking the Epigenome to the Genome: Correlation of Different Features to DNA Methylation of CpG Islands. PLoS ONE, 2012, 7, e35327.	2.5	29
63	Optimizing the Edge Weights in Optimal Assignment Methods for Virtual Screening with Particle Swarm Optimization. Lecture Notes in Computer Science, 2012, , 26-37.	1.3	0
64	High resolution visual terrain classification for outdoor robots. , 2011, , .		33
65	Grid-based visual terrain classification for outdoor robots using local features. , 2011, , .		21
66	Large-Scale Learning of Structure-Activity Relationships Using a Linear Support Vector Machine and Problem-Specific Metrics. Journal of Chemical Information and Modeling, 2011, 51, 203-213.	5.4	31
67	Real-time plane extraction from depth images with the Randomized Hough Transform. , 2011, , .		26
68	Automatic Take Off, Tracking and Landing of a Miniature UAV on a Moving Carrier Vehicle. Journal of Intelligent and Robotic Systems: Theory and Applications, 2011, 61, 221-238.	3.4	177
69	4D Flexible Atom-Pairs: An efficient probabilistic conformational space comparison for ligand-based virtual screening. Journal of Cheminformatics, 2011, 3, 23.	6.1	10
70	Cooperative visual mapping in a heterogeneous team of mobile robots. , 2011, , .		5
71	Efficient self-adjusting, similarity-based location fingerprinting with passive UHF RFID. , 2011, , .		16
72	Low-Cost Visual Tracking of a Landing Place and Hovering Flight Control with a Microcontroller. Journal of Intelligent and Robotic Systems: Theory and Applications, 2010, 57, 297-311.	3.4	44

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73	Flyphone: Visual Self-Localisation Using a Mobile Phone as Onboard Image Processor on a Quadcopter. <i>Journal of Intelligent and Robotic Systems: Theory and Applications</i> , 2010, 57, 451-465.	3.4	12
74	Probabilistic Modeling of Conformational Space for 3D Machine Learning Approaches. <i>Molecular Informatics</i> , 2010, 29, 441-455.	2.5	9
75	Swarm-supported outdoor localization with sparse visual data. <i>Robotics and Autonomous Systems</i> , 2010, 58, 166-173.	5.1	5
76	Graph kernels for chemical compounds using topological and three-dimensional local atom pair environments. <i>Neurocomputing</i> , 2010, 74, 219-229.	5.9	8
77	ModuleMaster: A new tool to decipher transcriptional regulatory networks. <i>BioSystems</i> , 2010, 99, 79-81.	2.0	12
78	Estimation of the applicability domain of kernel-based machine learning models for virtual screening. <i>Journal of Cheminformatics</i> , 2010, 2, 2.	6.1	41
79	The EvA2 Optimization Framework. <i>Lecture Notes in Computer Science</i> , 2010, , 247-250.	1.3	39
80	Towards scalability in niching methods. , 2010, , .		6
81	Markov random field-based clustering of vibration data. , 2010, , .		3
82	Optimization of the energy extraction of a shallow geothermal system. , 2010, , .		5
83	Plant Species Classification Using a 3D LIDAR Sensor and Machine Learning. , 2010, , .		39
84	Fully autonomous trajectory estimation with long-range passive RFID. , 2010, , .		13
85	Experiments on formation switching for mobile robots. , 2010, , .		0
86	Automatic Take Off, Tracking and Landing of a Miniature UAV on a Moving Carrier Vehicle. , 2010, , 221-238.		9
87	Path following for an omnidirectional mobile robot based on model predictive control. , 2009, , .		67
88	Adaptive bayesian filtering for vibration-based terrain classification. , 2009, , .		21
89	Prediction of breast cancer by profiling of urinary RNA metabolites using Support Vector Machine-based feature selection. <i>BMC Cancer</i> , 2009, 9, 104.	2.6	65
90	Optimal assignment methods for ligand-based virtual screening. <i>Journal of Cheminformatics</i> , 2009, 1, 14.	6.1	82

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91	Particle filter-based trajectory estimation with passive UHF RFID fingerprints in unknown environments. , 2009, , .		4
92	Atomic Local Neighborhood Flexibility Incorporation into a Structured Similarity Measure for QSAR. Journal of Chemical Information and Modeling, 2009, 49, 549-560.	5.4	20
93	Towards real-time and memory efficient predictions of valve states in diesel engines. , 2009, , .		0
94	Chronic Rat Toxicity Prediction of Chemical Compounds Using Kernel Machines. Lecture Notes in Computer Science, 2009, , 25-36.	1.3	1
95	Automatic Take Off, Hovering and Landing Control for Miniature Helicopters with Low-Cost Onboard Hardware. Informatik Aktuell, 2009, , 73-80.	0.6	8
96	Bioinformatical evaluation of modified nucleosides as biomedical markers in diagnosis of breast cancer. Analytica Chimica Acta, 2008, 618, 29-34.	5.4	41
97	Metabonomics in cancer diagnosis: mass spectrometry-based profiling of urinary nucleosides from breast cancer patients. Biomarkers, 2008, 13, 435-449.	1.9	81
98	A boosting approach for object classification in biosonar based robot navigation. , 2008, , .		2
99	Self-Localization with RFID snapshots in densely tagged environments. , 2008, , .		39
100	A combination of vision- and vibration-based terrain classification. , 2008, , .		37
101	A model-predictive approach to formation control of omnidirectional mobile robots. , 2008, , .		15
102	Nonlinear predictive control of an omnidirectional robot dribbling a rolling ball. , 2008, , .		3
103	Distributed model predictive control for coordinated path following control of omnidirectional mobile robots. Conference Proceedings IEEE International Conference on Systems, Man, and Cybernetics, 2008, , .	0.0	9
104	FIR-based classifiers for animal behavior classification. , 2008, , .		0
105	Dribbling Control of Omnidirectional Soccer Robots. Proceedings - IEEE International Conference on Robotics and Automation, 2007, , .	0.0	14
106	A hybrid approach for vision-based outdoor robot localization using global and local image features. , 2007, , .		16
107	Data and Graph Mining in Chemical Space for ADME and Activity Data Sets. QSAR and Combinatorial Science, 2006, 25, 205-220.	1.4	15
108	Kernel Functions for Attributed Molecular Graphs â€œ A New Similarity-Based Approach to ADME Prediction in Classification and Regression. QSAR and Combinatorial Science, 2006, 25, 317-326.	1.4	55

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109	Localization of mobile robots with omnidirectional vision using Particle Filter and iterative SIFT. Robotics and Autonomous Systems, 2006, 54, 758-765.	5.1	64
110	Vibration-based Terrain Classification Using Support Vector Machines. , 2006, , .		101
111	A Combined Monte-Carlo Localization and Tracking Algorithm for RoboCup. , 2006, , .		19
112	An Automatic Approach to Online Color Training in RoboCup Environments. , 2006, , .		4
113	Optimal assignment kernels for attributed molecular graphs. , 2005, , .		97
114	Towards Optimal Descriptor Subset Selection with Support Vector Machines in Classification and Regression. QSAR and Combinatorial Science, 2004, 23, 311-318.	1.4	36
115	Real-time object tracking for soccer-robots without color information. Robotics and Autonomous Systems, 2004, 48, 41-48.	5.1	62
116	Feature Selection for Descriptor Based Classification Models. 2. Human Intestinal Absorption (HIA). Journal of Chemical Information and Computer Sciences, 2004, 44, 931-939.	2.8	56
117	Feature Selection for Descriptor Based Classification Models. 1. Theory and GA-SEC Algorithm. Journal of Chemical Information and Computer Sciences, 2004, 44, 921-930.	2.8	46
118	The Compressed Feature Matrixâ€”a novel descriptor for adaptive similarity search. Journal of Molecular Modeling, 2003, 9, 66-75.	1.8	7
119	Prediction of Aqueous Solubility and Partition Coefficient Optimized by a Genetic Algorithm Based Descriptor Selection Method. Journal of Chemical Information and Computer Sciences, 2003, 43, 1077-1084.	2.8	87
120	AUTOMATIC AUDIO THUMBNAIL POSITIONING USING SELF-SIMILARITY. , 2003, , .		0
121	Externally Growing Cell Structures for Data Evaluation of Chemical Gas Sensors. Neural Computing and Applications, 2001, 10, 89-97.	5.6	10
122	Vision-based localization for mobile robots. Robotics and Autonomous Systems, 2001, 36, 103-119.	5.1	37
123	The Attempto RoboCup Robot Team. Lecture Notes in Computer Science, 2000, , 424-433.	1.3	5
124	Locating Biologically Active Compounds in Medium-Sized Heterogeneous Datasets by Topological Autocorrelation Vectors:â€” Dopamine and Benzodiazepine Agonists. Journal of Chemical Information and Computer Sciences, 1996, 36, 1205-1213.	2.8	138
125	A physics perspective on lidar data assimilation for mobile robots. Robotica, 0, , 1-26.	1.9	1