

# 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	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
2	An Onboard Monocular Vision System for Autonomous Takeoff, Hovering and Landing of a Micro Aerial Vehicle. Journal of Intelligent and Robotic Systems: Theory and Applications, 2013, 69, 499-515.	3.4	143
3	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
4	Vibration-based Terrain Classification Using Support Vector Machines. , 2006, , .		101
5	Circulating Lysophosphatidylcholines Are Markers of a Metabolically Benign Nonalcoholic Fatty Liver. Diabetes Care, 2013, 36, 2331-2338.	8.6	100
6	Optimal assignment kernels for attributed molecular graphs. , 2005, , .		97
7	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
8	Optimal assignment methods for ligand-based virtual screening. Journal of Cheminformatics, 2009, 1, 14.	6.1	82
9	Metabonomics in cancer diagnosis: mass spectrometry-based profiling of urinary nucleosides from breast cancer patients. Biomarkers, 2008, 13, 435-449.	1.9	81
10	Automated Label-free Quantification of Metabolites from Liquid Chromatographyâ€‰Mass Spectrometry Data. Molecular and Cellular Proteomics, 2014, 13, 348-359.	3.8	74
11	Multi-camera visual SLAM for autonomous navigation of micro aerial vehicles. Robotics and Autonomous Systems, 2017, 93, 116-134.	5.1	72
12	Optimization of energy extraction for closed shallow geothermal systems using linear programming. Geothermics, 2012, 43, 57-65.	3.4	68
13	Path following for an omnidirectional mobile robot based on model predictive control. , 2009, , .		67
14	Prediction of breast cancer by profiling of urinary RNA metabolites using Support Vector Machine-based feature selection. BMC Cancer, 2009, 9, 104.	2.6	65
15	Localization of mobile robots with omnidirectional vision using Particle Filter and iterative SIFT. Robotics and Autonomous Systems, 2006, 54, 758-765.	5.1	64
16	Real-time object tracking for soccer-robots without color information. Robotics and Autonomous Systems, 2004, 48, 41-48.	5.1	62
17	Identification of Dlk1-Dio3 Imprinted Gene Cluster Noncoding RNAs as Novel Candidate Biomarkers for Liver Tumor Promotion. Toxicological Sciences, 2013, 131, 375-386.	3.1	62
18	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

#	ARTICLE	IF	CITATIONS
19	Kernel Functions for Attributed Molecular Graphs – A New Similarity-Based Approach to ADME Prediction in Classification and Regression. <i>QSAR and Combinatorial Science</i> , 2006, 25, 317-326.	1.4	55
20	A Distributed Control Approach to Formation Balancing and Maneuvering of Multiple Multirotor UAVs. <i>IEEE Transactions on Robotics</i> , 2018, 34, 870-882.	10.3	52
21	Framework for Autonomous On-board Navigation with the AR.Drone. <i>Journal of Intelligent and Robotic Systems: Theory and Applications</i> , 2014, 73, 401-412.	3.4	50
22	Geometric arrangement and operation mode adjustment in low-enthalpy geothermal borehole fields for heating. <i>Energy</i> , 2013, 49, 434-443.	8.8	49
23	On-Board Dual-Stereo-Vision for the Navigation of an Autonomous MAV. <i>Journal of Intelligent and Robotic Systems: Theory and Applications</i> , 2014, 74, 1-16.	3.4	47
24	Feature Selection for Descriptor Based Classification Models. 1. Theory and GA-SEC Algorithm. <i>Journal of Chemical Information and Computer Sciences</i> , 2004, 44, 921-930.	2.8	46
25	Autonomous Landing of MAVs on an Arbitrarily Textured Landing Site Using Onboard Monocular Vision. <i>Journal of Intelligent and Robotic Systems: Theory and Applications</i> , 2014, 74, 27-43.	3.4	46
26	Low-Cost Visual Tracking of a Landing Place and Hovering Flight Control with a Microcontroller. <i>Journal of Intelligent and Robotic Systems: Theory and Applications</i> , 2010, 57, 297-311.	3.4	44
27	Integrated enrichment analysis and pathway-centered visualization of metabolomics, proteomics, transcriptomics, and genomics data by using the InCroMAP software. <i>Journal of Chromatography B: Analytical Technologies in the Biomedical and Life Sciences</i> , 2014, 966, 77-82.	2.3	44
28	Cross-Platform Toxicogenomics for the Prediction of Non-Genotoxic Hepatocarcinogenesis in Rat. <i>PLoS ONE</i> , 2014, 9, e97640.	2.5	44
29	Use of support vector machines for disease risk prediction in genome-wide association studies: Concerns and opportunities. <i>Human Mutation</i> , 2012, 33, 1708-1718.	2.5	42
30	Bioinformatical evaluation of modified nucleosides as biomedical markers in diagnosis of breast cancer. <i>Analytica Chimica Acta</i> , 2008, 618, 29-34.	5.4	41
31	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
32	Self-Localization with RFID snapshots in densely tagged environments. , 2008, , .		39
33	The EvA2 Optimization Framework. <i>Lecture Notes in Computer Science</i> , 2010, , 247-250.	1.3	39
34	Plant Species Classification Using a 3D LIDAR Sensor and Machine Learning. , 2010, , .		39
35	Vision-based localization for mobile robots. <i>Robotics and Autonomous Systems</i> , 2001, 36, 103-119.	5.1	37
36	A combination of vision- and vibration-based terrain classification. , 2008, , .		37

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37	Towards Optimal Descriptor Subset Selection with Support Vector Machines in Classification and Regression. <i>QSAR and Combinatorial Science</i> , 2004, 23, 311-318.	1.4	36
38	Robust nonlinear control approach to nontrivial maneuvers and obstacle avoidance for quadrotor UAV under disturbances. <i>Robotics and Autonomous Systems</i> , 2017, 98, 317-332.	5.1	36
39	Efficient onboard RGBD-SLAM for autonomous MAVs. , 2013, , .		35
40	High resolution visual terrain classification for outdoor robots. , 2011, , .		33
41	InCroMAP: integrated analysis of cross-platform microarray and pathway data. <i>Bioinformatics</i> , 2013, 29, 506-508.	4.1	33
42	Large-Scale Learning of Structure-Activity Relationships Using a Linear Support Vector Machine and Problem-Specific Metrics. <i>Journal of Chemical Information and Modeling</i> , 2011, 51, 203-213.	5.4	31
43	Linking the Epigenome to the Genome: Correlation of Different Features to DNA Methylation of CpG Islands. <i>PLoS ONE</i> , 2012, 7, e35327.	2.5	29
44	Using depth in visual simultaneous localisation and mapping. , 2012, , .		27
45	Real-time plane extraction from depth images with the Randomized Hough Transform. , 2011, , .		26
46	ZBIT Bioinformatics Toolbox: A Web-Platform for Systems Biology and Expression Data Analysis. <i>PLoS ONE</i> , 2016, 11, e0149263.	2.5	25
47	MobileStereoNet: Towards Lightweight Deep Networks for Stereo Matching. , 2022, , .		25
48	Recurrent Neural Networks for fast and robust vibration-based ground classification on mobile robots. , 2016, , .		23
49	Adaptive bayesian filtering for vibration-based terrain classification. , 2009, , .		21
50	Grid-based visual terrain classification for outdoor robots using local features. , 2011, , .		21
51	Visual tracking and following of a quadcopter by another quadcopter. , 2012, , .		21
52	Atomic Local Neighborhood Flexibility Incorporation into a Structured Similarity Measure for QSAR. <i>Journal of Chemical Information and Modeling</i> , 2009, 49, 549-560.	5.4	20
53	A Combined Monte-Carlo Localization and Tracking Algorithm for RoboCup. , 2006, , .		19
54	Tumor promotion and inhibition by phenobarbital in livers of conditional Apc-deficient mice. <i>Archives of Toxicology</i> , 2016, 90, 1481-1494.	4.2	19

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55	On-board dual-stereo-vision for autonomous quadrotor navigation. , 2013, , .		18
56	Framework for autonomous onboard navigation with the AR.Drone. , 2013, , .		17
57	A hybrid approach for vision-based outdoor robot localization using global and local image features. , 2007, , .		16
58	Efficient self-adjusting, similarity-based location fingerprinting with passive UHF RFID. , 2011, , .		16
59	A new feature detector and stereo matching method for accurate high-performance sparse stereo matching. , 2012, , .		16
60	Parkinsonâ€™s disease: dopaminergic nerve cell model is consistent with experimental finding of increased extracellular transport of L $\alpha$ -synuclein. BMC Neuroscience, 2013, 14, 136.	1.9	16
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	Data and Graph Mining in Chemical Space for ADME and Activity Data Sets. QSAR and Combinatorial Science, 2006, 25, 205-220.	1.4	15
63	A model-predictive approach to formation control of omnidirectional mobile robots. , 2008, , .		15
64	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
65	Seeing Implicit Neural Representations as Fourier Series. , 2022, , .		15
66	Dribbling Control of Omnidirectional Soccer Robots. Proceedings - IEEE International Conference on Robotics and Automation, 2007, , .	0.0	14
67	Fully autonomous trajectory estimation with long-range passive RFID. , 2010, , .		13
68	Visual terrain classification by flying robots. , 2012, , .		13
69	Path following control of skid-steered wheeled mobile robots at higher speeds on different terrain types. , 2017, , .		13
70	Flyphone: Visual Self-Localisation Using a Mobile Phone as Onboard Image Processor on a Quadcopter. Journal of Intelligent and Robotic Systems: Theory and Applications, 2010, 57, 451-465.	3.4	12
71	ModuleMaster: A new tool to decipher transcriptional regulatory networks. BioSystems, 2010, 99, 79-81.	2.0	12
72	Visual SLAM for autonomous MAVs with dual cameras. , 2014, , .		12

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73	Externally Growing Cell Structures for Data Evaluation of Chemical Gas Sensors. <i>Neural Computing and Applications</i> , 2001, 10, 89-97.	5.6	10
74	4D Flexible Atom-Pairs: An efficient probabilistic conformational space comparison for ligand-based virtual screening. <i>Journal of Cheminformatics</i> , 2011, 3, 23.	6.1	10
75	Pathway-based visualization of cross-platform microarray datasets. <i>Bioinformatics</i> , 2012, 28, 3021-3026.	4.1	10
76	Distributed model predictive control for coordinated path following control of omnidirectional mobile robots. <i>Conference Proceedings IEEE International Conference on Systems, Man, and Cybernetics</i> , 2008, , .	0.0	9
77	Probabilistic Modeling of Conformational Space for 3D Machine Learning Approaches. <i>Molecular Informatics</i> , 2010, 29, 441-455.	2.5	9
78	Onboard monocular vision for landing of an MAV on a landing site specified by a single reference image. , 2013, , .		9
79	Efficient Map Representations for Multi-Dimensional Normal Distributions Transforms. , 2018, , .		9
80	Real-Time Graph-Based SLAM with Occupancy Normal Distributions Transforms. , 2020, , .		9
81	Automatic Take Off, Tracking and Landing of a Miniature UAV on a Moving Carrier Vehicle. , 2010, , 221-238.		9
82	Graph kernels for chemical compounds using topological and three-dimensional local atom pair environments. <i>Neurocomputing</i> , 2010, 74, 219-229.	5.9	8
83	Following a quadrotor with another quadrotor using onboard vision. , 2013, , .		8
84	A robust nonlinear controller for nontrivial quadrotor maneuvers: Approach and verification. , 2015, , .		8
85	Markerless Racket Pose Detection and Stroke Classification Based on Stereo Vision for Table Tennis Robots. , 2019, , .		8
86	Automatic Take Off, Hovering and Landing Control for Miniature Helicopters with Low-Cost Onboard Hardware. <i>Informatik Aktuell</i> , 2009, , 73-80.	0.6	8
87	The Compressed Feature Matrix“a novel descriptor for adaptive similarity search. <i>Journal of Molecular Modeling</i> , 2003, 9, 66-75.	1.8	7
88	Path following with passive UHF RFID received signal strength in unknown environments. , 2012, , .		7
89	ToxDBScan: Large-Scale Similarity Screening of Toxicological Databases for Drug Candidates. <i>International Journal of Molecular Sciences</i> , 2014, 15, 19037-19055.	4.1	7
90	A Cross-Platform Comparison of Visual Marker Based Approaches for Autonomous Flight of Quadcopters. <i>Journal of Intelligent and Robotic Systems: Theory and Applications</i> , 2014, 73, 349-359.	3.4	7

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91	Xenobiotic CAR Activators Induce Dlk1-Dio3 Locus Noncoding RNA Expression in Mouse Liver. Toxicological Sciences, 2017, 158, 367-378.	3.1	7
92	Towards scalability in niching methods. , 2010, , .		6
93	Real time face tracking and pose estimation using an adaptive correlation filter for human-robot interaction. , 2013, , .		6
94	Real time person detection and tracking by mobile robots using RGB-D images. , 2014, , .		6
95	Outdoor obstacle avoidance based on hybrid visual stereo SLAM for an autonomous quadrotor MAV. , 2017, , .		6
96	Swarm-supported outdoor localization with sparse visual data. Robotics and Autonomous Systems, 2010, 58, 166-173.	5.1	5
97	Optimization of the energy extraction of a shallow geothermal system. , 2010, , .		5
98	Cooperative visual mapping in a heterogeneous team of mobile robots. , 2011, , .		5
99	Evaluation of the performance of evolutionary algorithms for optimization of low-enthalpy geothermal heating plants. , 2012, , .		5
100	The Attempto RoboCup Robot Team. Lecture Notes in Computer Science, 2000, , 424-433.	1.3	5
101	An Automatic Approach to Online Color Training in RoboCup Environments. , 2006, , .		4
102	Particle filter-based trajectory estimation with passive UHF RFID fingerprints in unknown environments. , 2009, , .		4
103	DCTAM: Drift-corrected tracking and mapping for autonomous micro aerial vehicles. , 2015, , .		4
104	Nonlinear predictive control of an omnidirectional robot dribbling a rolling ball. , 2008, , .		3
105	Markov random field-based clustering of vibration data. , 2010, , .		3
106	Loop closure detection using depth images. , 2013, , .		3
107	Robust real-time detection of multiple balls on a mobile robot. , 2013, , .		3
108	Robust Onboard Visual SLAM for Autonomous MAVs. Advances in Intelligent Systems and Computing, 2016, , 361-373.	0.6	3

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109	Simultaneous Collaborative Mapping Based on Low-Bandwidth Communication. , 2019, , .		3
110	Sub-Pixel Resolution Techniques for Ray Casting in Low-Resolution Occupancy Grid Maps. , 2019, , .		3
111	A boosting approach for object classification in biosonar based robot navigation. , 2008, , .		2
112	A fast dense stereo matching algorithm with an application to 3D occupancy mapping using quadcopters. , 2015, , .		2
113	Robust Real-Time 3D Person Detection for Indoor and Outdoor Applications. , 2018, , .		2
114	MuSe: Multi-Sensor Integration Strategies Applied to Sequential Monte Carlo Methods. , 2019, , .		2
115	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
116	Optimization and visualization of the edge weights in optimal assignment methods for virtual screening. BioData Mining, 2013, 6, 7.	4.0	1
117	Kinematic model based visual odometry for differential drive vehicles. , 2017, , .		1
118	Collaborative Mapping with Pose Uncertainties using different Radio Frequencies and Communication Modules. , 2019, , .		1
119	A physics perspective on lidar data assimilation for mobile robots. Robotica, 0, , 1-26.	1.9	1
120	Chronic Rat Toxicity Prediction of Chemical Compounds Using Kernel Machines. Lecture Notes in Computer Science, 2009, , 25-36.	1.3	1
121	FIR-based classifiers for animal behavior classification. , 2008, , .		0
122	Towards real-time and memory efficient predictions of valve states in diesel engines. , 2009, , .		0
123	Experiments on formation switching for mobile robots. , 2010, , .		0
124	AUTOMATIC AUDIO THUMBNAIL POSITIONING USING SELF-SIMILARITY. , 2003, , .		0
125	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