

Dieter Fox

List of Publications by Year in descending order

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96
papers

12,675
citations

230014

27
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299063

42
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98
all docs

98
docs citations

98
times ranked

9092
citing authors

#	ARTICLE	IF	CITATIONS
1	Geometric Fabrics: Generalizing Classical Mechanics to Capture the Physics of Behavior. IEEE Robotics and Automation Letters, 2022, 7, 3202-3209.	3.3	10
2	Hierarchical Policies for Cluttered-Scene Grasping With Latent Plans. IEEE Robotics and Automation Letters, 2022, 7, 2883-2890.	3.3	9
3	iCaps: Iterative Category-Level Object Pose and Shape Estimation. IEEE Robotics and Automation Letters, 2022, 7, 1784-1791.	3.3	20
4	Unseen Object Instance Segmentation for Robotic Environments. IEEE Transactions on Robotics, 2021, 37, 1343-1359.	7.3	37
5	PoseRBPF: A Rao-Blackwellized Particle Filter for 6-D Object Pose Tracking. IEEE Transactions on Robotics, 2021, 37, 1328-1342.	7.3	79
6	Learning Composable Behavior Embeddings for Long-Horizon Visual Navigation. IEEE Robotics and Automation Letters, 2021, 6, 3128-3135.	3.3	1
7	RMPflow: A Geometric Framework for Generation of Multitask Motion Policies. IEEE Transactions on Automation Science and Engineering, 2021, 18, 968-987.	3.4	12
8	Contact-GraspNet: Efficient 6-DoF Grasp Generation in Cluttered Scenes. , 2021, , .		94
9	ACRONYM: A Large-Scale Grasp Dataset Based on Simulation. , 2021, , .		45
10	IRIS: Implicit Reinforcement without Interaction at Scale for Learning Control from Offline Robot Manipulation Data. , 2020, , .		20
11	6-DOF Grasping for Target-driven Object Manipulation in Clutter. , 2020, , .		103
12	Scaling Local Control to Large-Scale Topological Navigation. , 2020, , .		21
13	RMPflow: A Computational Graph for Automatic Motion Policy Generation. Springer Proceedings in Advanced Robotics, 2020, , 441-457.	0.9	13
14	Joint Inference of Kinematic and Force Trajectories with Visuo-Tactile Sensing. , 2019, , .		15
15	Part Segmentation for Highly Accurate Deformable Tracking in Occlusions via Fully Convolutional Neural Networks. , 2019, , .		0
16	Neural Autonomous Navigation with Riemannian Motion Policy. , 2019, , .		21
17	Closing the Sim-to-Real Loop: Adapting Simulation Randomization with Real World Experience. , 2019, , .		196
18	EARLY FUSION for Goal Directed Robotic Vision. , 2019, , .		5

#	ARTICLE	IF	CITATIONS
19	Synthesizing Robot Manipulation Programs from a Single Observed Human Demonstration. , 2019, , .		3
20	6-DOF GraspNet: Variational Grasp Generation for Object Manipulation. , 2019, , .		263
21	The limits and potentials of deep learning for robotics. International Journal of Robotics Research, 2018, 37, 405-420.	5.8	320
22	Perceiving and reasoning about liquids using fully convolutional networks. International Journal of Robotics Research, 2018, 37, 452-471.	5.8	17
23	IQA: Visual Question Answering in Interactive Environments. , 2018, , .		157
24	SE3-Pose-Nets: Structured Deep Dynamics Models for Visuomotor Control. , 2018, , .		24
25	DeepIM: Deep Iterative Matching for 6D Pose Estimation. Lecture Notes in Computer Science, 2018, , 695-711.	1.0	223
26	Real-time 3D Glint Detection in Remote Eye Tracking Based on Bayesian Inference. , 2018, , .		4
27	RGB-D Based Tracking of Complex Objects. Lecture Notes in Computer Science, 2018, , 115-127.	1.0	0
28	Self-Supervised Visual Descriptor Learning for Dense Correspondence. IEEE Robotics and Automation Letters, 2017, 2, 420-427.	3.3	97
29	Visual closed-loop control for pouring liquids. , 2017, , .		52
30	Dynamic High Resolution Deformable Articulated Tracking. , 2017, , .		7
31	SE3-nets: Learning rigid body motion using deep neural networks. , 2017, , .		120
32	Autonomous question answering with mobile robots in human-populated environments. , 2016, , .		5
33	NEOL: Toward Never-Ending Object Learning for robots. , 2016, , .		3
34	A Bayesian Developmental Approach to Robotic Goal-Based Imitation Learning. PLoS ONE, 2015, 10, e0141965.	1.1	8
35	Depth-based tracking with physical constraints for robot manipulation. , 2015, , .		43
36	Designing information gathering robots for human-populated environments. , 2015, , .		4

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37	DART: dense articulated real-time tracking with consumer depth cameras. Autonomous Robots, 2015, 39, 239-258.	3.2	41
38	Toward online 3-D object segmentation and mapping. , 2014, , .		31
39	Multi-task policy search for robotics. , 2014, , .		58
40	Space-time functional gradient optimization for motion planning. , 2014, , .		29
41	Learning predictive models of a depth camera & manipulator from raw execution traces. , 2014, , .		14
42	Learning hierarchical sparse features for RGB-(D) object recognition. International Journal of Robotics Research, 2014, 33, 581-599.	5.8	47
43	Special issue on robotics: science and systems. Autonomous Robots, 2014, 37, 333-334.	3.2	0
44	ST-HMP: Unsupervised Spatio-Temporal feature learning for tactile data. , 2014, , .		96
45	Learning to identify new objects. , 2014, , .		5
46	Unsupervised feature learning for 3D scene labeling. , 2014, , .		215
47	Multipath Sparse Coding Using Hierarchical Matching Pursuit. , 2013, , .		137
48	Change Their Perception: RGB-D for 3-D Modeling and Recognition. IEEE Robotics and Automation Magazine, 2013, 20, 49-59.	2.2	23
49	Control strategies for the index finger of a tendon-driven hand. International Journal of Robotics Research, 2013, 32, 115-128.	5.8	15
50	RGB-D flow: Dense 3-D motion estimation using color and depth. , 2013, , .		123
51	RGB-D Object Recognition: Features, Algorithms, and a Large Scale Benchmark. Advances in Computer Vision and Pattern Recognition, 2013, , 167-192.	0.9	46
52	Patch Volumes: Segmentation-Based Consistent Mapping with RGB-D Cameras. , 2013, , .		56
53	Attribute based object identification. , 2013, , .		30
54	Interactive singulation of objects from a pile. , 2012, , .		72

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55	Estimation, planning, and mapping for autonomous flight using an RGB-D camera in GPS-denied environments. International Journal of Robotics Research, 2012, 31, 1320-1343.	5.8	134
56	RGB-D mapping: Using Kinect-style depth cameras for dense 3D modeling of indoor environments. International Journal of Robotics Research, 2012, 31, 647-663.	5.8	967
57	Detection-based object labeling in 3D scenes. , 2012, , .		120
58	Object recognition with hierarchical kernel descriptors. , 2011, , .		146
59	Manipulator and object tracking for in-hand 3D object modeling. International Journal of Robotics Research, 2011, 30, 1311-1327.	5.8	145
60	A large-scale hierarchical multi-view RGB-D object dataset. , 2011, , .		894
61	Interactive 3D modeling of indoor environments with a consumer depth camera. , 2011, , .		96
62	Sparse distance learning for object recognition combining RGB and depth information. , 2011, , .		137
63	Learning GP-BayesFilters via Gaussian process latent variable models. Autonomous Robots, 2011, 30, 3-23.	3.2	55
64	Probabilistic State Estimation Techniques for Autonomous and Decision Support Systems. Informatik-Spektrum, 2011, 34, 455-461.	1.0	1
65	Autonomous generation of complete 3D object models using next best view manipulation planning. , 2011, , .		102
66	Depth kernel descriptors for object recognition. , 2011, , .		238
67	RGB-D object discovery via multi-scene analysis. , 2011, , .		38
68	Gambit: An autonomous chess-playing robotic system. , 2011, , .		44
69	Object Recognition in 3D Point Clouds Using Web Data and Domain Adaptation. International Journal of Robotics Research, 2010, 29, 1019-1037.	5.8	123
70	Learning to navigate through crowded environments. , 2010, , .		169
71	Following directions using statistical machine translation. , 2010, , .		30
72	Anatomically correct testbed hand control: Muscle and joint control strategies. , 2009, , .		18

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73	GP-BayesFilters: Bayesian filtering using Gaussian process prediction and observation models. Autonomous Robots, 2009, 27, 75-90.	3.2	229
74	Distributed multirobot exploration, mapping, and task allocation. Annals of Mathematics and Artificial Intelligence, 2008, 52, 229-255.	0.9	37
75	GP-BayesFilters: Bayesian filtering using Gaussian process prediction and observation models. , 2008, , .		43
76	A spatio-temporal probabilistic model for multi-sensor object recognition. , 2007, , .		14
77	GP-UKF: Unscented kalman filters with Gaussian process prediction and observation models. , 2007, , .		70
78	CRF-Filters: Discriminative Particle Filters for Sequential State Estimation. Proceedings - IEEE International Conference on Robotics and Automation, 2007, , .	0.0	19
79	Gaussian Processes and Reinforcement Learning for Identification and Control of an Autonomous Blimp. Proceedings - IEEE International Conference on Robotics and Automation, 2007, , .	0.0	95
80	Learning and inferring transportation routines. Artificial Intelligence, 2007, 171, 311-331.	3.9	480
81	Hierarchical Models for Activity Recognition. , 2006, , .		10
82	Building Personal Maps from GPS Data. Annals of the New York Academy of Sciences, 2006, 1093, 249-265.	1.8	69
83	Map-Based Multiple Model Tracking of a Moving Object. Lecture Notes in Computer Science, 2005, , 18-33.	1.0	36
84	Opportunity Knocks: A System to Provide Cognitive Assistance with Transportation Services. Lecture Notes in Computer Science, 2004, , 433-450.	1.0	99
85	Inferring High-Level Behavior from Low-Level Sensors. Lecture Notes in Computer Science, 2003, , 73-89.	1.0	267
86	Robust Monte Carlo localization for mobile robots. Artificial Intelligence, 2001, 128, 99-141.	3.9	1,359
87	A Probabilistic Approach to Collaborative Multi-Robot Localization. Autonomous Robots, 2000, 8, 325-344.	3.2	507
88	Efficient Multi-Robot Localization Based on Monte Carlo Approximation. , 2000, , 153-160.		5
89	Experiences with an interactive museum tour-guide robot. Artificial Intelligence, 1999, 114, 3-55.	3.9	605
90	Collaborative Multi-robot Localization. Lecture Notes in Computer Science, 1999, , 255-266.	1.0	13

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91	Collaborative Multi-Robot Localization. Informatik Aktuell, 1999, , 15-26.	0.4	35
92	Integrating active localization into high-level robot control systems. Robotics and Autonomous Systems, 1998, 23, 205-220.	3.0	16
93	Active Markov localization for mobile robots. Robotics and Autonomous Systems, 1998, 25, 195-207.	3.0	330
94	Reasoning About Liquids via Closed-Loop Simulation. , 0, , .		14
95	PoseCNN: A Convolutional Neural Network for 6D Object Pose Estimation in Cluttered Scenes. , 0, , .		833
96	Manipulation Trajectory Optimization with Online Grasp Synthesis and Selection. , 0, , .		13