Journal Articles


Conference and Workshop Papers

M. Sundermeyer, M. Durner, E. Y. Puang, Z.-C. Marton, N. Vaskevicius, K. O. Arras and R. Triebel,  
**Multi-path Learning for Object Pose Estimation Across Domains**,  

J. Wenger, H. Kjellström and R. Triebel,  
**Non-Parametric Calibration for Classification**,  
*International Conference on Artificial Intelligence and Statistics (AISTATS)*, 2020.

J. Lee, R. Balachandran, Y. Sarkisov, M. D Stefano, A. Coelho, K. Shinde, M. J. Kim, R. Triebel and K. Kondak,  
**Visual-Inertial Telepresence for Aerial Manipulation**,  

J. Lee, M. Humt, J. Feng and R. Triebel,  
**Estimating Model Uncertainty of Neural Networks in Sparse Information Form**,  

J. Liu, I. Chiotellis, R. Triebel and D. Cremers,  
**Effective Version Space Reduction for Convolutional Neural Networks**,  
*European Conference on Machine Learning and Data Mining (ECML-PKDD)*, 2020.

M. Denninger and R. Triebel,  
**3D Scene Reconstruction from a Single Viewport**,  

M. Sewtz, T. Bodenmüller and R. Triebel,  
**Robust MUSIC-Based Sound Source Localization in Reverberant and Echoic Environments**,  

C. L. Gentil, M. Vayugundla, R. Giubilato, W. Stürzl, T. A. Vidal-Calleja and R. Triebel,  
**Gaussian Process Gradient Maps for Loop-Closure Detection in Unstructured Planetary Environments**,  

E. Y. Puang, P. Lehner, Z.-C. Marton, M. Durner, R. Triebel and A. Albu-Schäffer,  
**Visual Repetition Sampling for Robot Manipulation Planning**,  

F. Steidle, W. Stürzl and R. Triebel,  
**Visual-inertial sensor fusion with a bio-inspired polarization compass for navigation of MAVs**,  

J. Feng, M. Durner, Z.-C. Marton, F. Balint-Benczedi and R. Triebel,  
**Introspective Robot Perception using Smoothed Predictions from Bayesian Neural Networks**,  

M. Brucker, M. Durner, R. Ambrus, Z.-C. Marton, A. Wendt, P. Jensfelt, K.O. Arras and R. Triebel,  
**Semantic Labeling of Indoor Environments from 3D RGB Maps**,  
Author: Triebel

List of Publications

[C14] M. Sundermeyer, Z. Marton, M. Durner, M. Brucker and R. Triebel,
*Implicit 3D Orientation Learning for 6D Object Detection from RGB Images*,
*European Conference on Computer Vision (ECCV)*, September 2018, Best Paper Award.

[C15] M. Denninger and R. Triebel,
*Persistent Anytime Learning of Objects from Unseen Classes*,

[C16] I. Grixa, P. Schulz, W. Stürzl and R. Triebel,
*Appearance-Based Along-Route Localization for Planetary Missions*,

[C17] I. Chiotellis, F. Zimmermann, D. Cremers and R. Triebel,
*Incremental Semi-Supervised Learning from Streams for Object Classification*,

*6DoF Pose Estimation for Industrial Manipulation based on Synthetic Data*,

[C19] C. Nissler, M. Durner, Z.-C. Marton and R. Triebel,
*Simultaneous Calibration and Mapping*,

[C20] M Ullrich, H Ali, M Durner, ZC Marton and R Triebel,
*Selecting CNN Features for Online Learning of 3D Objects*,

[C21] C Nissler, ZC Marton, H Kisner, U Thomas and R Triebel,
*A Method for Hand-Eye and Camera-to-Camera Calibration for Limited Fields of View*,

[C22] TS Wang, ZC Marton, M Brucker and R Triebel,
*How Robots Learn to Classify New Objects Trained from Small Data Sets*,
*Conference on Robot Learning (CoRL)*, 2017.

[C23] M Durner, S Kriegel, S Riedel, M Brucker, ZC Marton, F Balint-Benczedi and R Triebel,
*Experience-based Optimization of Robotic Perception*,

[C24] A. Narr, R. Triebel and D. Cremers,
*Stream-based Active Learning for Efficient and Adaptive Classification of 3D Objects*,
[C25] I. Chiotellis, R. Triebel, T. Windheuser and D. Cremers,
Non-Rigid 3D Shape Retrieval via Large Margin Nearest Neighbor Embedding,
_European Conference on Computer Vision (ECCV)_ , October 2016.

[C26] S. Sharifzadeh, I. Chiotellis, R. Triebel and D. Cremers,
Learning to Drive using Inverse Reinforcement Learning and Deep Q-Networks,
_NIPS Workshops_, December 2016.

[C27] D. Mund, R. Triebel and D. Cremers,
**Active Online Confidence Boosting for Efficient Object Classification**, 

V. Evers, M. Fiore, H. Hung, O. A. I Ramirez, M. Joosse, H. Khambhaita, T. Kucner, B. Leibe,
A. J. Lilienthal, T. Linder, M. Lohse, M. Magnusson, B. Okal, L. Palmieri, U. Rafi,
M. van Rooij and L. Zhang,
SPENCER: A Socially Aware Service Robot for Passenger Guidance and Help in Busy Airports,

[C29] Y. Tao, R. Triebel and D. Cremers,
Semi-supervised Online Learning for Efficient Classification of Objects in 3D Data Streams,

[C30] F. Stark, C. Hazirbas, R. Triebel and D. Cremers,
**CAPTCHA Recognition with Active Deep Learning**, 
_GCPR Workshop on New Challenges in Neural Computation_, Aachen, Germany, 2015.

[C31] T. Windheuser, M. Vestner, E. Rodola, R. Triebel and D. Cremers,
Optimal Intrinsic Descriptors for Non-Rigid Shape Analysis,

[C32] R. Triebel, J. Stühmer, M. Souiai and D. Cremers,
Active Online Learning for Interactive Segmentation Using Sparse Gaussian Processes,
_German Conference on Pattern Recognition_, 2014.

[C33] S. Debnath, S. S. Baishya, R. Triebel, V. Dutt and D. Cremers,
Environment-adaptive Learning: How Clustering Helps to Obtain Good Training Data,

[C34] P. Furgale, U. Schwesinger, M. Rufli, W. Derendarz, H. Grimmert, P. Mühlfellner, S. Wonneberger,
J. Timner, S. Rottmann, B. Li, B. Schmidt, T. N Nguyen, E. Cardarelli, S. Cattani,
S. Brüning, S. Horstmann, M. Stellmach, H. Mielenz, K. Köser, M. Beermann,
L. Wolf, M. Pollefeys, S. Brosig, J. Effertz, C. Pradalier and R. Siegwart,
Toward Automated Driving in Cities using Close-to-Market Sensors,
Knowing When We Don’t Know: Introspective Classification for Mission-Critical Decision Making,  

[C36] R. Triebel, H. Grimmett and I. Posner,  
Confidence Boosting: Improving the Introspectiveness of a Boosted Classifier for Efficient Learning,  

[C37] R. Triebel, H. Grimmett, R. Paul and I. Posner,  
Introspective Active Learning for Scalable Semantic Mapping,  

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Driven Learning for Driving: How Introspection Improves Semantic Mapping,  
*The International Symposium on Robotics Research (ISRR)*, 2013.

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[C42] J. Maye, R. Triebel, L. Spinello and R. Siegwart,  
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[C43] R. Kaestner, N. Engelhard, R. Triebel and R. Siegwart,  
A Bayesian Approach to Learning 3D Representations of Dynamic Environments,  

[C44] L. Spinello, R. Triebel, D. Vasquez, K. Arras and R Siegwart,  
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[C46] L. Spinello, K. O. Arras, R. Triebel and R. Siegwart,  
A Layered Approach to People Detection in 3D Range Data,  
special track on Physically Grounded AI of AAAI, 2010.
[C47] J. Shin, R. Triebel and R. Siegwart,
Unsupervised Discovery of Repetitive Objects,

[C48] J. Maye, L. Spinello, R. Triebel and R. Siegwart,
Inferring the Semantics of Direction Signs in Public Places,

[C49] L. Spinello, A. Macho, R. Triebel and R. Siegwart,
Detecting Pedestrians at Very Small Scales,

[C50] L. Spinello, R. Triebel and R. Siegwart,
Multiclass Multimodal Detection and Tracking in Urban Environments,
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[C51] D. Engel, L. Spinello, R. Triebel, C. Curio, R. Siegwart and H. Bulthoff,
Medial Features for Superpixel Segmentation,

[C52] L. Spinello, R. Triebel and R. Siegwart,
Multimodal Detection and Tracking of Pedestrians in Urban Environments with Explicit Ground Plane Extraction,

[C53] L. Spinello, R. Triebel and R. Siegwart,
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[C54] R. Triebel, O. M Mozos and W. Burgard,
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[C55] R. Kümmerle, P. Pfaff, R. Triebel and W. Burgard,
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[C57] P. Pfaff, R. Triebel, C. Stachniss, P. Lamon, W. Burgard and R. Siegwart,
Towards Mapping of Cities,

[C58] R. Triebel, R. Schmidt, O. M Mozos and W. Burgard,
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[C59] R. Triebel, P. Pfaff and W. Burgard,  
Multi-Level Surface Maps for Outdoor Terrain Mapping and Loop Closing,  

[C60] R. Triebel, K. Kersting and W. Burgard,  
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[C61] H. Andreasson, R. Triebel and A. Lilienthal,  
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[C62] H. Andreasson, R. Triebel and W. Burgard,  
Improving Plane Extraction from 3D Data by Fusing Laser Data and Vision,  

[C63] R. Triebel and W. Burgard,  
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[C65] R. Triebel, B. Frank, J. Meyer and W. Burgard,  
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