[C1] A. Narr, R. Triebel and D. Cremers, 
Stream-based Active Learning for Efficient and Adaptive Classification of 3D Objects, 
*Int. Conf. on Robotics and Automation*, May 2016.

[J1] Hugo Grimmett, Rudolph Triebel, Rohan Paul and Ingmar Posner, 
Introspective classification for robot perception, 

[C1] D. Mund, R. Triebel and D. Cremers, 
Active Online Confidence Boosting for Efficient Object Classification, 

SPENCER: A Socially Aware Service Robot for Passenger Guidance and Help in Busy Airports, 

[C3] Y. Tao, R. Triebel and D. Cremers, 
Semi-supervised Online Learning for Efficient Classification of Objects in 3D Data Streams, 

[C4] F. Stark, C. Hazrba, R. Triebel and D. Cremers, 
CAPTCHA Recognition with Active Deep Learning, 
*GCPR Workshop on New Challenges in Neural Computation*, Aachen, Germany, 2015.

[C1] T. Windheuser, M. Vestner, E. Rodola, R. Triebel and D. Cremers, 
Optimal Intrinsic Descriptors for Non-Rigid Shape Analysis, 

[C2] 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.

[C3] S. Debnath, S. S. Baishya, R. Triebel, V. Dutt and D. Cremers, 
Environment-adaptive Learning: How Clustering Helps to Obtain Good Training Data, 
Toward Automated Driving in Cities using Close-to-Market Sensors,

Knowing When We Don’t Know: Introspective Classification for Mission-Critical Decision Making,

[C3] R. Triebel, H. Grimmett and I. Posner,
Confidence Boosting: Improving the Introspectiveness of a Boosted Classifier for Efficient Learning,

Introspective Active Learning for Scalable Semantic Mapping,

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

[C1] R. Paul, R. Triebel, D. Rus and P. Newman,
Semantic Categorization of Outdoor Scenes with Uncertainty Estimates using Multi-Class Gaussian Process Classification,

Parsing Outdoor Scenes from Streamed 3D Laser Data Using Online Clustering and Incremental Belief Updates,

[C1] J. Shin, R. Triebel and R. Siegwart,
Unsupervised 3D Object Discovery and Categorization for Mobile Robots,

[C2] J. Maye, R. Triebel, L. Spinello and R. Siegwart,
Bayesian On-line Learning of Driving Behaviors,
Int. Conf. on Robotics and Automation, 2011.

[J1] L. Spinello, R. Triebel and R. Siegwart,
Multiclass Multimodal Detection and Tracking in Urban Environments,
[C1] R. Kaestner, N. Engelhard, R. Triebel and R. Siegwart,
A Bayesian Approach to Learning 3D Representations of Dynamic Environments,

[C2] L. Spinello, R. Triebel, D. Vasquez, K. Arras and R. Siegwart,
Exploiting Repetitive Object Patterns for Model Compression and Completion,

[C3] R. Triebel, J. Shin and R. Siegwart,
Segmentation and Unsupervised Part-based Discovery of Repetitive Objects,

[C4] 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.

[C5] J. Shin, R. Triebel and R. Siegwart,
Unsupervised Discovery of Repetitive Objects,
Int. Conf. on Robotics and Automation, 2010.

[C6] J. Maye, L. Spinello, R. Triebel and R. Siegwart,
Inferring the Semantics of Direction Signs in Public Places,
Int. Conf. on Robotics and Automation, 2010.

[C1] L. Spinello, A. Macho, R. Triebel and R. Siegwart,
Detecting Pedestrians at Very Small Scales,

[C2] L. Spinello, R. Triebel and R. Siegwart,
Multiclass Multimodal Detection and Tracking in Urban Environments,
Proc. of Field and Service Robotics (FSR), 2009.

[C3] D. Engel, L. Spinello, R. Triebel, C. Curio, R. Siegwart and H. Blthoff,
Medial Features for Superpixel Segmentation,

[J1] R. Kummerle, R. Triebel, P. Pfaff and W. Burgard,
Monte Carlo localization in outdoor terrains using multilevel surface maps,

[C1] L. Spinello, R. Triebel and R. Siegwart,
Multimodal Detection and Tracking of Pedestrians in Urban Environments with Explicit Ground Plane Extraction,

[C2] L. Spinello, R. Triebel and R. Siegwart,
Multimodal People Detection and Tracking in Crowded Scenes,
[J1] . Martnez Mozos, R. Triebel, P. Jensfelt, A. Rottmann and W. Burgard,
Supervised semantic labeling of places using information extracted from sensor
data, 

[J2] P. Pfaff, R. Triebel and W. Burgard,
An Efficient Extension to Elevation Maps for Outdoor Terrain Mapping and
Loop Closing,

[J3] H. Andreasson, R. Triebel and A. Lilienthal,
Non-iterative Vision-based Interpolation of 3D Laser Scans,

[C1] R. Triebel, . Martnez Mozos and W. Burgard,
Collective Classification for Labeling of Places and Objects in 2D and 3D Ran-
ge Data,
Proc. of the 31th Annual Conference of the German Classification Society on Data Ana-

[C2] R. Kunmerle, P. Pfaff, R. Triebel and W. Burgard,
Active Monte Carlo Localization in Outdoor Terrains using Multi-Level Sur-
face Maps,
Fachgesprche Autonome Mobile Systeme (AMS), 2007.

[C3] R. Triebel and W. Burgard,
Recovering the Shape of Objects in 3D Point Clouds with Partial Occlusions,

Monte Carlo Localization in Outdoor Terrains using Multi-Level Surface Maps,

Towards Mapping of Cities,
Int. Conf. on Robotics and Automation, 2007.

Instance-based AMN Classification for Improved Object Recognition in 2D
and 3D Laser Range Data,

[C1] R. Triebel, P. Pfaff and W. Burgard,
Multi-Level Surface Maps for Outdoor Terrain Mapping and Loop Closing,

[C2] R. Triebel, K. Kersting and W. Burgard,
Robust 3D Scan Point Classification using Associative Markov Networks,
Int. Conf. on Robotics and Automation, 2006.

[C3] H. Andreasson, R. Triebel and A. Lilienthal,
Vision-based Interpolation of 3D Laser Scans,
[C1] H. Andreasson, R. Triebel and W. Burgard,
Improving Plane Extraction from 3D Data by Fusing Laser Data and Vision,

[C2] R. Triebel and W. Burgard,
Improving Simultaneous Localization and Mapping in 3D Using Global Constraints,
Proc. of the Twentieth National Conference on Artificial Intelligence (AAAI), 2005.

[C3] R. Triebel, W. Burgard and F. Dellaert,
Using Hierarchical EM to Extract Planes from 3D Range Scans,
Int. Conf. on Robotics and Automation, 2005.

[C1] R. Triebel, B. Frank, J. Meyer and W. Burgard,
First steps towards a robotic system for flexible volumetric mapping of indoor environments,

A system for volumetric robotic mapping of underground mines,

[C2] D. Hhnel, R. Triebel, W. Burgard and S. Thrun,
Map Building with Mobile Robots in Dynamic Environments,