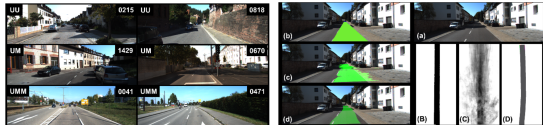


A New Performance Measure and Evaluation Benchmark for Road Detection Algorithms

J. Fritsch, T. Kühnl, and A. Geiger (ITSC 2013)

abbreviation	# train	# test	description
UU	98	100	urban unmarked
UM	95	96	urban marked two-way road
UMM	96	94	urban marked multi-lane road
URBAN	289	290	all three urban subsets



- ▶ Open-access dataset and benchmark for road area and ego-lane detection
- ▶ Motivation: finding the boundaries of unmarked or weakly marked roads and lanes as they appear in inner-city and rural environments
- ▶ 600 annotated training and test images of high variability from three challenging real-world city road types derived from the KITTI dataset
- ▶ Evaluation using 2D Birds Eye View (BEV) space
- ▶ Behavior-based metric by fitting a driving corridor to road detection results in the BEV
- ▶ Comparison of state-of-the-art road detection algorithms using classical pixel-level metrics in perspective and BEV space as well as the novel behavior-based performance measure