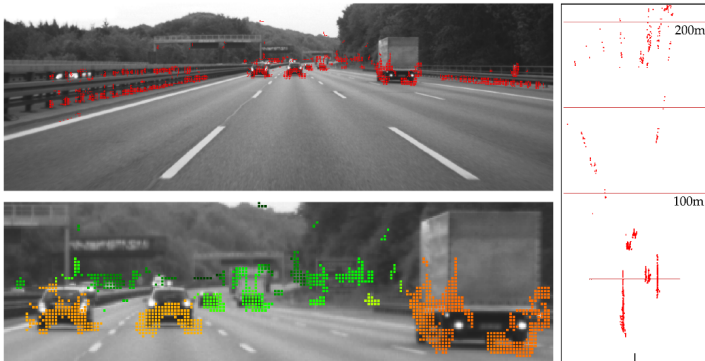


High-Performance Long Range Obstacle Detection Using Stereo Vision

P. Pinggera, U. Franke, R. Mester (IROS 2015)



- ▶ Existing methods designed for robust generic obstacle detection based on geometric criteria work best only in close to medium range applications
- ▶ Contributions:
 - ▶ Presents a novel method for the joint detection and localization of distant obstacles using a stereo vision system on a moving platform
 - ▶ The proposed algorithm is based on statistical hypothesis tests using local geometric criteria and can implicitly handle non-flat ground surfaces
 - ▶ Operates directly on image data instead of precomputed stereo disparity maps
- ▶ Evaluates on stereo sequences introduced in Cordts et al., Object-level Priors for Stixel Generation