Visual Odometry based on Stereo Image Sequences with RANSAC-based Outlier Rejection Scheme B. Kitt, A. Geiger and H. Lategahn (IV 2010)



- Well distributed corner-like feature matches due to bucketing
- Using trifocal geometry the egomotion is estimated
- Iterated Sigma Point Kalman Filter yields robust frame-to-frame motion estimation
- Outlier are rejected with RANSAC-based approach
- Outperforms other filtering techniques in accuracy and run time
- Evaluated on simulated and real world data with INS trajectories