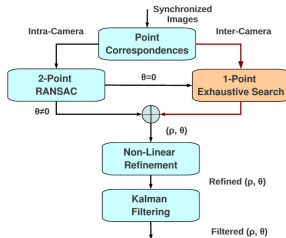


Motion Estimation for Self-Driving Cars With a Generalized Camera

G. H. Lee, F. Fraundorfer and M. Pollefeys (CVPR 2013)



- ▶ Visual ego-motion estimation algorithm for self-driving car
- ▶ Modeling multi-camera system as a generalized camera
- ▶ Applying non-holonomic motion constraint of a car (Ackerman motion model)
- ▶ Novel 2-point minimal solution for the generalized essential matrix
- ▶ General case with at least one inter-camera correspondence and special case with only intra-camera correspondences
- ▶ Efficient implementation within RANSAC for robust estimation
- ▶ Comparison on a large real-world dataset with minimal overlapping field-of-views against GPS/INS ground truth