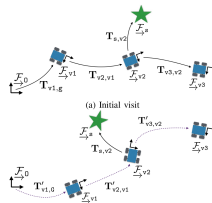
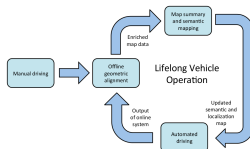
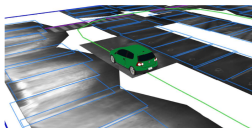


# Integrating Metric and Semantic Maps for Vision-Only Automated Parking

H. Grimmer, M. Buerki, L. Paz, P. Pinies, P. Furgale, I. Posner, and P. Newman (ICRA 2015)



- ▶ Creating metric maps and semantic maps
- ▶ Missing in the literature: how to update the semantic layer as the metric map evolves
- ▶ Unsupervised evolution of both maps as the environment is revisited by the robot
- ▶ Distinguishing between static and dynamic maps
- ▶ Using vision-only sensors and reduced human labelling of semantic maps in case of safety-critical situations
- ▶ Automatically generating road network graphs
- ▶ Evaluated on two different car parks with a fully automated car, performing repeated automated parking manoeuvres (V-Charge project)