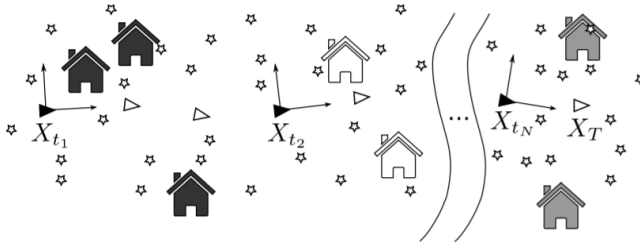


Visual SLAM for Autonomous Ground Vehicles

H. Lategahn, A. Geiger, B. Kitt (ICRA 2011)



- ▶ Propose a dense stereo V-SLAM algorithm that estimates a dense 3D map representation which is more accurate than raw stereo measurements
- ▶ Runs a sparse V-SLAM system, take the resulting pose estimates to compute a locally dense representation from dense stereo correspondences
- ▶ Expresses this dense representation in local coordinate systems which are tracked as part of the SLAM estimate
- ▶ The sparse part of the SLAM system uses sub mapping techniques to achieve constant runtime complexity most of the time
- ▶ Evaluates on outdoor experiments of a car like robot.