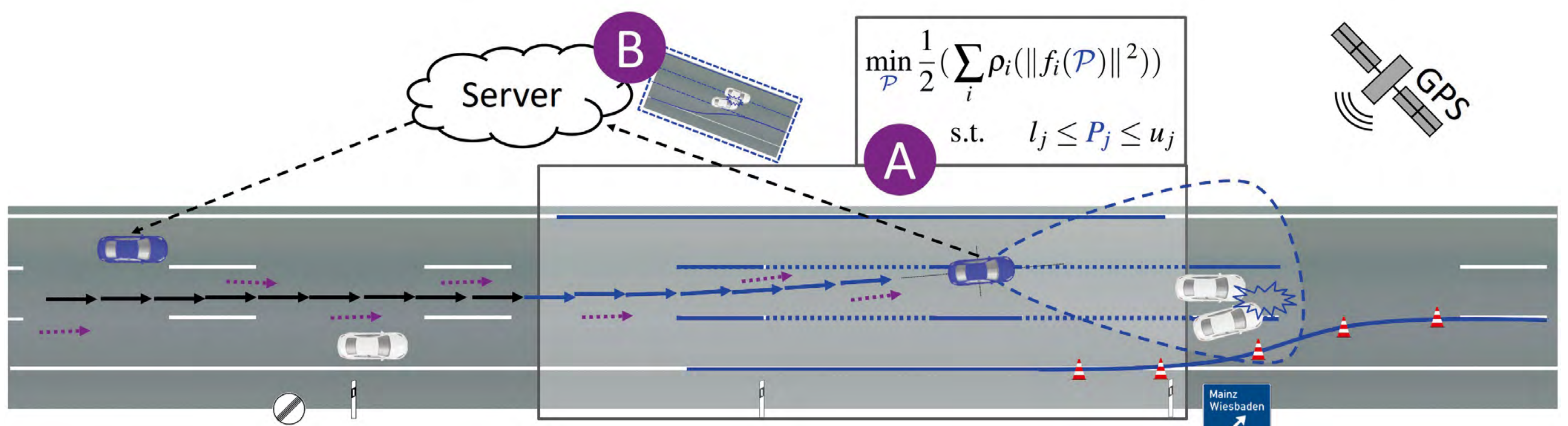




FRONTEND

Localization and Mapping Using Graph-Based Optimization

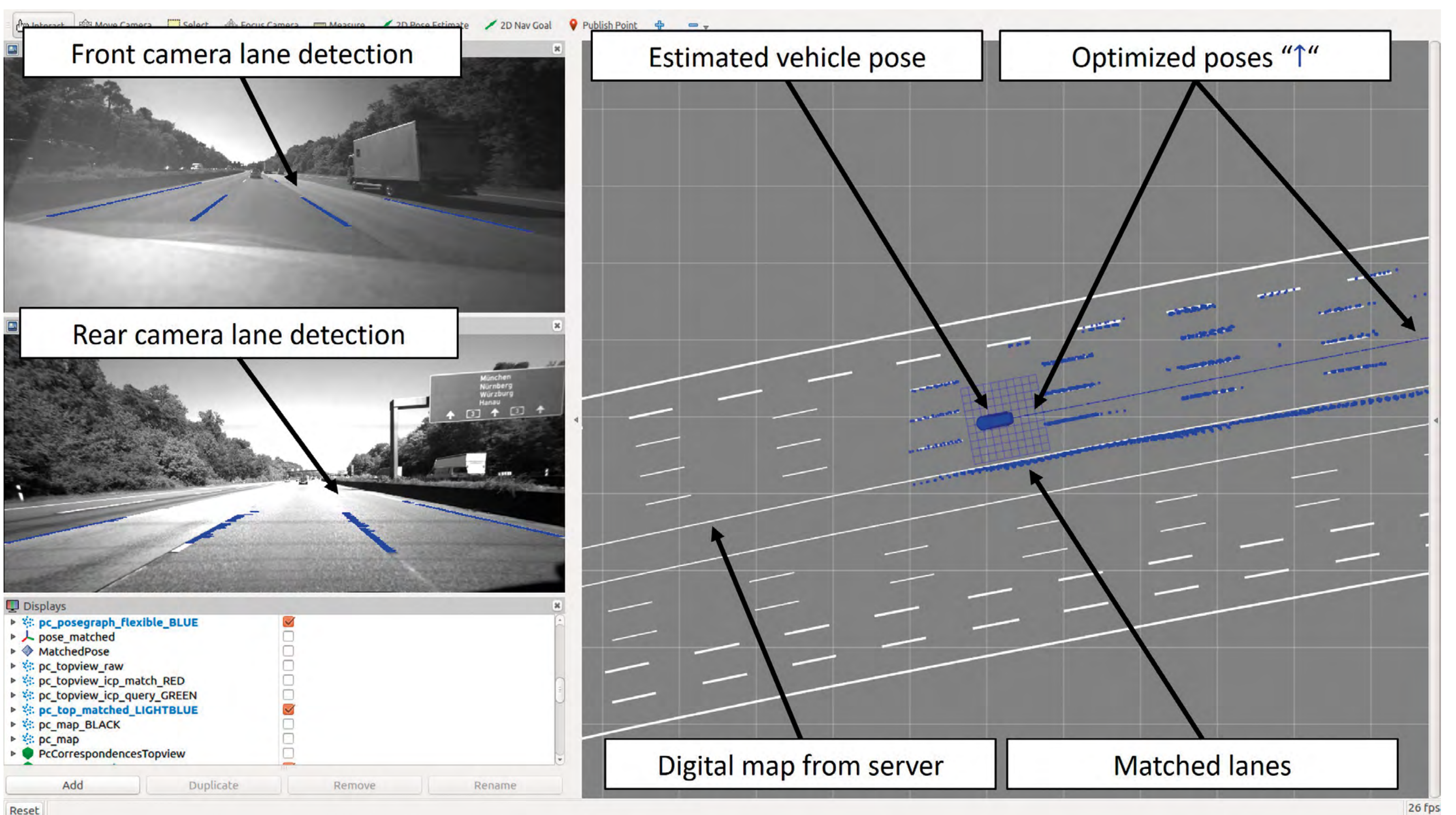
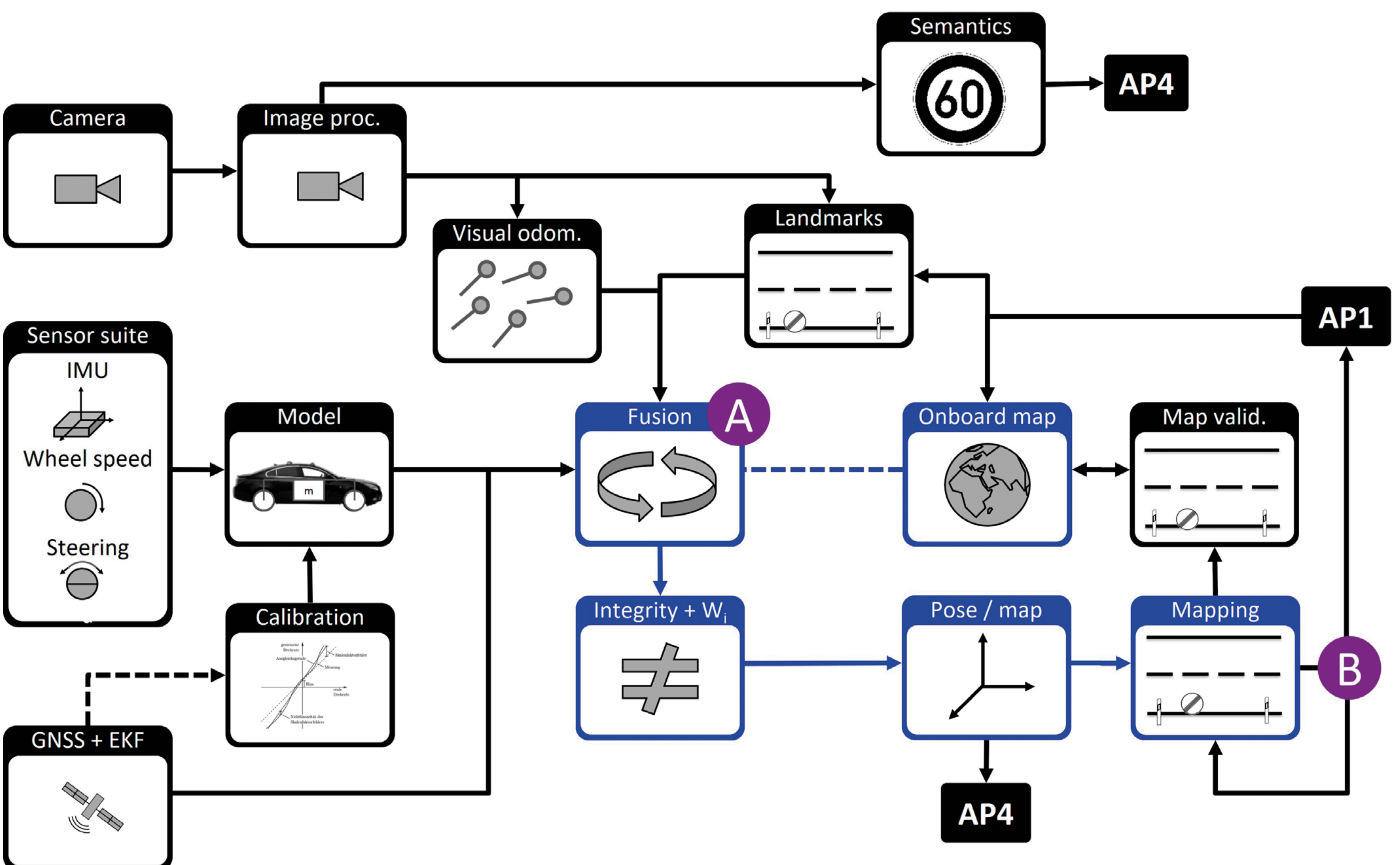


Objective:

- A** Optimize vehicle poses P_i "↑" (position + orientation), so that their distance to sensor measurements "↑" gets minimized [1].
- B** Upload static map and dynamic content to the safety server.

Nomenclature:

- f Cost function
- ρ Loss function
- l_j, u_j Boundaries
- \mathcal{P} Set of poses



[1] Maximilian Harr, Johannes Janosovits, Sascha Wirges, and Christoph Stiller. Fast and Robust Vehicle Pose Estimation by Optimizing Multiple Pose Graphs. In 21th International Conference on Information Fusion, 2018.

