## Structureless Pose-Graph Loop-Closure with a Multi-Camera System on a Self-Driving Car

G. F. Lee, F. Fraundorfer, M. Pollefeys (IROS 2013)



Proposes a method to compute the pose-graph loop-closure constraints using multiple overlapping field-of-views cameras mounted on a self-driving car

## Contributions:

- Shows that the relative pose for the loop-closure constraint can be computed directly from the epipolar geometry of a multi-camera system
- Avoids the additional time complexities from the reconstruction of 3D scene points
- Provides greater flexibility in choosing a configuration for the multi-camera system to cover a wider field-of-view to avoid missing out any loop-closure opportunities
- Evaluates on ParkingGarage01, ParkingGarage02 and Campu01 datasets