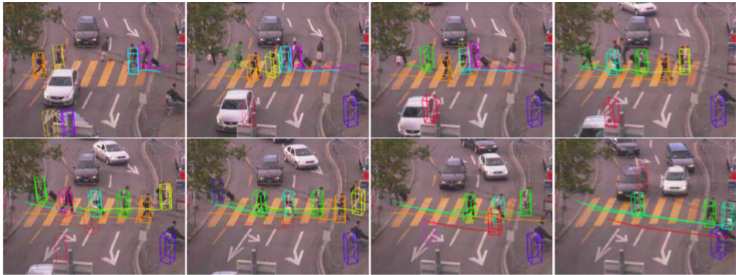


Coupled Object Detection and Tracking from Static Cameras and Moving Vehicles

B. Leibe, K. Schindler, N. Cornelis, L. V. Gool (PAMI 2008)



- ▶ Builds an integrated system for dynamic 3D scene analysis from a moving platform
- ▶ Presents a novel approach for multi-object tracking integrating recognition, re-construction & tracking in a collaborative framework
- ▶ Contributions:
 - ▶ Uses SfM to estimate scene geometry at each time step
 - ▶ Uses recognition to pick out objects of interest & separate them from the dynamically changing background
 - ▶ Uses the output of multiple single-view object detectors & integrates continuously reestimated scene geometry constraints
 - ▶ Uses tracking for temporal context to individual object detections
- ▶ Evaluates on 2 video sequence datasets introduced in the paper