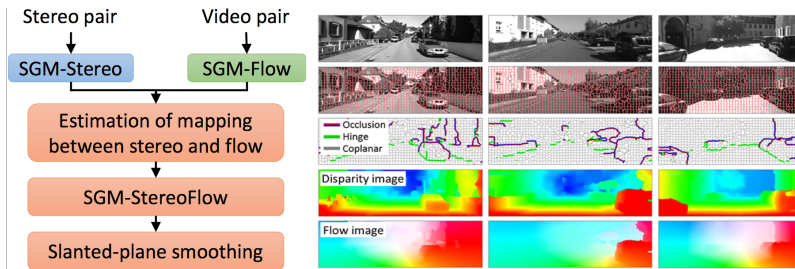# Efficient Joint Segmentation, Occlusion Labeling, Stereo and Flow Estimation
K. Yamaguchi, D. McAllester, R. Urtasun (ECCV 2014)

- Existing slanting plane methods involved time-consuming optimization algorithms

- Contributions:
    - Exploits the fact that in autonomous driving scenarios most of the scene is static
    - New SGM algorithm based on the joint evidence of the stereo and video pairs
    - New fast block-coordinate descent form of inference algorithm on a total energy involving the segmentation, slanted planes and occlusion labeling

- Evaluates on stereo and flow KITTI benchmarks
- Order of magnitude faster than competing approaches