Continuous Markov Random Fields for Robust Stereo Estimation K. Yamaguchi, T. Hazan, D. McAllester, R. Urtasun (ECCV 2012)



- Slanted-plane model which reasons jointly about occlusion boundaries and depth
- Existing slanting plane methods involved time-consuming optimization algorithms
- Contributions:
 - Novel model involving "boundary labels", "junction potentials" & "edge ownership"
 - Faster inference by employing particle convex belief propagation (PCBP)
 - More effective parameter training algorithm based on Primal-dual approximate inference
- Evaluates on KITTI and Middebury high resolution images