Efficient Deep Learning for Stereo Matching W. Luo, A. G. Schwing, R. Urtasun (CVPR 2016)



- Siamese networks for stereo perform well but are slow
- They propose a very fast matching network
 - Product layer between the siamese networks instead of concatenation
 - Consider multi-class classification problem with the possible disparities as classes
 - Calibrated scores allow to outperform existing approaches
 - Consider several MRFs for smoothing the matching results (cost aggregation, semi global block matching and slanted plane)
- Evaluation on KITTI 2012 and 2015 benchmarks