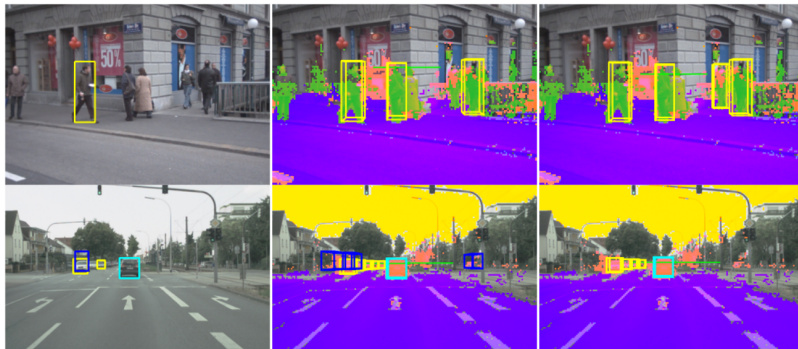


Monocular 3D Scene Modeling and Inference: Understanding Multi-Object Traffic Scenes

C. Wojek, S. Roth, K. Schindler, and B. Schiele (ECCV 2010)



- ▶ A probabilistic 3D scene model for multi-class object detection, object tracking, scene labelling, and 3D geometric relations
- ▶ A consistent 3D description of a scene using only monocular video
- ▶ Complex interactions like inter-object occlusion, physical exclusion between objects, geometric context
- ▶ RJMCMC for inference and HMM for long-term associations in scene tracking
- ▶ Better than state-of-the-art in 3D multi-people tracking (ETH-Loewenplatz)
- ▶ A new, challenging dataset for 3D tracking of cars and trucks: MPI-VehicleScenes