Online Multiperson Tracking-by-Detection from a Single, Uncalibrated Camera M. D. Breitenstein, F. Reichlin, B. Leibe, E. Koller-Meier, and L. V. Gool (PAMI 2011)



- Automatic detection and tracking of a variable number of persons in complex scenes using a monocular, potentially moving, uncalibrated camera
- Multi-person tracking-by-detection in a particle filtering framework using unreliable information from
 - ▶ final high-confidence detections
 - continuous confidence of pedestrian detectors
 - online-trained, instance-specific classifiers as a graded observation model
- ▶ Good performance on typical surveillance videos, webcam footage, or sports sequences
- Datasets: ETHZ Central, TUD Campus and TUD Crossing, i-Lids AB, UBC Hockey, PETS09 S2.L1-S2.L3, ETHZ Standing, and a new Soccer dataset