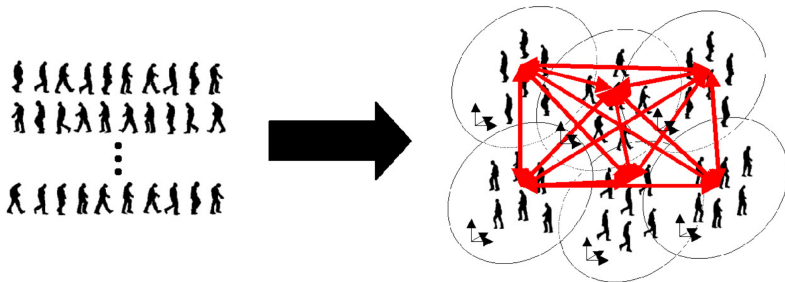


A Bayesian Framework for Multi-cue 3D Object Tracking

J. Giebel, D. M. Gavrila, and C. Schnörr (ECCV 2004)



- ▶ Multi-cue 3D deformable object tracking from a moving vehicle
- ▶ Spatio-temporal shape representation by a set of distinct linear subspace models
Dynamic Point Distribution Models (DPDMs)
 - ▶ Continuous and discontinuous appearance changes
 - ▶ Learned fully automatically from training data
- ▶ Texture information by means of intensity histograms
- ▶ Direct 3D measurement by a stereo system
- ▶ State propagation by a particle filter combining shape, texture and depth in its observation density function
- ▶ Measurements from an independent object detection by means of importance sampling
- ▶ Evaluated in urban, rural, and synthetic environments