**Multiple target tracking for wearable and robotic cameras**

Vision offers a powerful sensing modality to understand and interact with the physical world. The rapid progress in hardware, models and algorithms is supporting the emergence of applications for the recognition of events from wearable smart cameras and camera-equipped robots, such as unmanned land and aerial vehicles (i.e. self-driving cars and mini-drones). In this context I will present an online multi-target tracker that exploits both high- and low-confidence target detections in a Probability Hypothesis Density Particle Filter framework to continuously localise people from moving cameras. High-confidence detections are used for label propagation and target initialization, whereas low-confidence detections only support the propagation of labels. Data association is performed after prediction to avoid computationally expensive labelling procedures such as clustering. I will discuss results on the Multiple Object Tracking benchmark dataset and present several application scenarios.

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