

# MULTI-CAMERA 3-D TRACKING USING PARTICLE FILTER

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## *Abstract*

*Determining the 3D location of a moving object, and tracking it from a sequence of different camera images is a classical but still challenging problem. In our approach neither explicit triangulation, nor precise motion model are used; only the colour of the object to be tracked is required. We use a particle filter, where the observation model we have developed avoids the colour filtering of the entire image. Preliminary experiments are presented and lessons learned are commented. The approach easily scales to several cameras and new sensor cues.*