

ENHANCING OBJECT TRACKING ACCURACY USING BOUNDING BOX MULTI-OBJECT TRACKING (BOX-MOT)

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ABSTRACT

The realm of computer vision, precise and reliable object tracking is crucial for applications ranging from surveillance to autonomous driving. Traditional object tracking techniques often struggle with challenges such as occlusion, rapid object motion, and dynamic backgrounds. Box-MOT addresses these issues by combining bounding box regression with advanced tracking algorithms to improve detection and tracking performance. Experimental results demonstrate that Box-MOT significantly outperforms conventional tracking methods in terms of accuracy, robustness, and computational efficiency.

Keywords: object tracking, Box-MOT, multiple object tracking, accuracy