

# TTNet: Real-time temporal and spatial video analysis of table tennis

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The presented demonstration illustrates the performance of an auto-referee system. TTNet provides the information for reasoning score updates during rallies. The visualization contains two scores: TTNet event-based score (Score) and a ground truth score recognized by an OCR side system (OCR) for reference. A separate system detects serve events. A whole error-free set refereed by TTNet demonstrates the robustness of the proposed method. However, some issues could happen, for example, in the case of occlusions and fast strokes. Common problematic moments are included at the end of the video, as well.

The video also contains overlayed semantic masks and graphs of raw event probabilities. The demonstration video was obtained during real-time processing of 120 fps live-stream on a playground. The visualization is presented in 1280x720 px resolution at 30 fps for compression purposes. TTNet was trained with the proposed OpenTTGames dataset.