SCALABLE TEMPORAL INTEREST POINTS FOR ABSTRACTION AND CLASSIFICATION OF VIDEO EVENTS (WedAmOR3)

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Abstract: Motion−discontinuous instants usually give key frames to summarize a video shot or event. However, the key frames are differently identified according to the change of velocity and acceleration of motion, and such scales of change might be different on each sequence of the same event. In this paper, we present a scalable video abstraction in which the key frames are obtained by the maximum curvature of camera motion at each temporal scale. The scalability means dealing with the velocity and acceleration change of motion. In the temporal neighborhood determined by the scale, the scene features (motion, color, and edge) can be used to index and classify the video events. Therefore those key frames provide temporal interest points (TIPs) for the abstraction and classification of video events.