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Title	Passive Object-based Video Authentication Using Stereo Statistical Descriptor on Wavelet Decomposition
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Abstract	Determining video authenticity has become a challenging task in video forgery detection and localization systems. One of the core difficulties is to extract a suitable feature descriptor. The recent studies on passive object-based video authentication are limited to localize the forged frames in copy-paste/delete object forgery. That is done without considering the object motion interpolation. It performs video authentication on simple videos with a static camera without using dynamic texture. This research work proposes an Action Passive Object-based Video Authentication Algorithm (APOVA). The APOVA consists a new statistical texture descriptor and a forged keyframes localization algorithm to validate video data. The APOVA algorithm has been tested on the Shih-Tang dataset. The experimental results shows that APOVA can obtain the best results in accuracy using the proposed descriptor. In addition, it is able to achieve the best performance in forged keyframes localization with F0.5_score = 0.93 and video authentication with F0.5_score = 0.99. As a result, APOVA based on APOKL is considered suitable algorithm for complex color video authentication, especially for passive object-based video forgery systems.