 Novel Robust Video Watermarking Algorithm Based on Adaptive Modulation

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Abstract—Video watermarking is a technology to protect copyright ownership. This paper presents a novel robust video watermarking algorithm based on adaptive temporal modulation. A watermark pattern is generated based on an analysis of the histogram of the host video. Then, a watermarked video is generated by temporally modulating the mean chrominance value of each chrominance channel in relation with the watermark pattern, depending on the characteristic of the original videos. Experimental results demonstrate that the proposed algorithm is robust against geometrical distortions and signal processing attacks including compression format conversion.

Keywords—Video watermarking, contents security