



LOSSLESS VIDEO CODING USING MULTI-FRAME MOTION COMPENSATION (WedAmPO4)

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★ Abstract :

In this paper we consider the problem of lossless compression of video sequences exploiting the temporal redundancy between frames. In particular, we present a technique performing motion compensation on more than one past frame. Each prediction component is optimally weighted to minimize the mean squared error of the residual. Experimental results for several standard video sequences show that multi-frame motion compensation with optimal weighting outperforms regular 1-frame motion compensation with gains up to 18.2% even for the case of just two past reference frames.

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