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(54) Title: SPATIALLY ADAPTIVE FILTERING FOR VIDEO ENCODING

(57) Abstract

The present invention provides a method (200) and an apparatus (100) for spatially adaptive filtering for video encoding. The apparatus filters a video sequence prior the encoding process. The apparatus comprises a noise variance determiner (102), a local variance determiner (104), a noise visibility function determiner (106), a Gaussian kernel determiner (108), and a convolver (110). The apparatus removes noise directly from a Displaced Frame Difference, DFD, signal. This novel approach removes noise and miscellaneous high frequency components from the DFD signal without the introduction of the filtering artifacts characteristic of current techniques. By reducing the miscellaneous high frequency components, the present invention is capable of reducing the amount of information that must be encoded by the video encoder without substantially degrading the decoded video sequence.

