

论文

改进的降低空间分辨率视频编码转换算法

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摘要

该文提出一种改进的降低空间分辨率视频编码转换算法。根据漂移误差与帧间编码块的运动活动性的关系，提出了一种自适应帧内刷新方法。该方法根据目标比特率和实际比特率的差值，动态地调整阈值，从而有效地减少了帧内编码的比特率，保持了对差错的鲁棒性，限制了差错的时间传播。同时，将率失真函数映射为线性函数，以较少计算复杂度，提出了一种线性速率控制策略。仿真结果表明：该文提出的方法有效地平滑了缓冲器的输出，同时峰值信噪比也有所提高。

关键词 [视频编码转换](#) [空间分辨率](#) [自适应帧内刷新](#) [速率控制](#)

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An Improved Algorithm for Reduced Spatial Resolution Video Transcoding

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Abstract

An algorithm of improved reduced spatial resolution video transcoding is proposed in this paper. An adaptive intra-refresh scheme is presented based on the relation between drift error and motion activity of inter-coded blocks. The thresholds are dynamically adjusted according to the difference between the target bit rate and actual bit rate. This method can reduce the bit rate of intra coded frames while still maintaining error robustness and limiting temporal propagation of errors. Besides, a linear rate control strategy is also present. In order to reduce computational complexity, the rate-distortion function can be mapped into a linear function. The simulation results show that the buffer fullness tend to be stabilized and the PSNR of the reconstructed image is raised.

Key words [Video transcoding](#) [Spatial resolution](#) [Adaptive intra-refresh](#) [Rate control](#)

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