

通信与网络

H.264/AVC码率控制现状与发展

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摘要:

作为视频通信中非常重要的关键技术之一, 码率控制用于调整视频码流以满足带宽受限的条件, 能够直接影响视频编码器输出码率的稳定性和保证视频质量。首先描述码率控制问题, 给出码率控制算法的分类准则; 然后对众多的H.264/先进视频编码(advanced video coding, AVC)码率控制算法根据应用目的进行具体描述; 最后从适用标准和应用目的两个方面, 详细指出码率控制技术今后的研究方向。

关键词: 视频通信 码率控制 H.264/先进视频编码(advanced video coding AVC)

Status and development for H.264/AVC rate control

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Abstract:

As one of the important key technologies for video communications, rate control is used to adapt video streams to meet the constrained bandwidth, which can affect the stability of video coding bit rate and achieve a certain video quality. The rate control problem is described and the classification for rate control algorithms is proposed. Then based on the application objective, the rate control algorithms for H.264/AVC are introduced concretely. Finally, the future research directions of rate control are stated in detail from the two aspects of the suitable standard and the application objective, respectively.

Keywords: video communication rate control H.264/AVC

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