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(54) Title: AUDIO CODING METHOD AND APPARATUS, AND ELECTRONIC DEVICE AND STORAGE MEDIUM

(54) 发明名称: 一种音频编码方法、装置、电子设备及存储介质

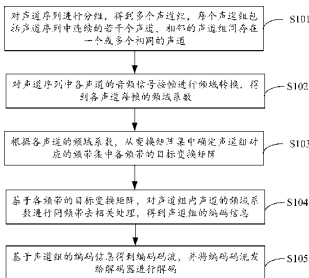


图 1

- S101 Perform grouping on a sound channel sequence, so as to obtain a plurality of sound channel groups, wherein each sound channel group comprises several successive sound channels in the sound channel sequence, and there is one or more identical sound channels between adjacent sound channel groups
- S102 Perform frame-based frequency domain transformation on an audio signal of each sound channel in the sound channel sequence, so as to obtain a frequency domain coefficient of each sound channel per frame
- S103 According to the frequency domain coefficient of each sound channel, determine, from a transformation matrix set, a target transformation matrix of each frequency band in a frequency band set corresponding to each sound channel group
- S104 On the basis of the target transformation matrix of each frequency band, perform intra-frequency-band decorrelation processing on the frequency domain coefficients of the sound channels in each sound channel group, so as to obtain coding information of each sound channel group
- S105 Obtain a coded code stream on the basis of the coding information of each sound channel group, and send the coded code stream to a decoder for decoding

(57) Abstract: Provided are an audio coding method and apparatus, an audio decoding method and apparatus, and an electronic device, a storage medium, a computer program product and a computer program. The audio coding method comprises: performing grouping on a sound channel sequence, so as to obtain a plurality of sound channel groups, wherein each sound channel group comprises several successive sound channels in the sound channel sequence, and there is one or more identical sound channels between adjacent sound channel groups; performing frame-based frequency domain transformation on an audio signal of each sound channel in the sound channel sequence, so as to obtain a frequency domain coefficient of each sound channel per frame; according to the frequency domain coefficient of each sound channel, determining, from a transformation matrix set, a target transformation matrix of each frequency band in a frequency band set corresponding to each sound channel group; on the basis of the target transformation matrix of each frequency band, performing intra-frequency-band decorrelation processing on the frequency domain coefficients of the sound channels in each sound channel group, so as to obtain coding information of each sound channel group; and obtaining a coded code stream on the basis of the coding information of each sound channel group, and sending the coded code stream to a decoder for decoding.

(57) 摘要: 提供了一种音频编码方法和音频解码方法及其装置、电子设备、存储介质、计算机程序产品和计算机程序。该方法包括: 对声道序列进行分组, 得到多个声道组, 每个声道组包括声道序列中连续的若干个声道, 相邻的声道组间存在一个或多个相同的声道; 对声道序列中各声道的音频信号按帧进行频域转换, 得到各声道每帧的频域系数; 根据各声道的频域系数, 从变换矩阵集中确定声道组对应的频带集中各频带的目标变换矩阵; 基于各频带的目标变换矩阵, 对声道组内声道的频域系数进行同频带去相关处理, 得到声道组的编码信息; 基于声道组的编码信息得到编码码流, 并将编码码流发给解码器进行解码。

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