CLAIMS

What is claimed is:

1. An audio coding method, comprising:

estimating short-term linear prediction efficiency of a current audio frame, wherein the short-term linear prediction efficiency is a change rate of energy of the current audio frame, the energy of the current audio frame is obtained before and after short-term linear prediction of the current audio frame is performed on the current audio signal, and the energy of the current audio frame obtained after the short-term linear prediction is performed is the energy of the linear-prediction residual of the current audio frame;

determining an audio coding scheme that matches the short-term linear prediction efficiency of the current audio frame; and

performing audio coding on the current audio frame according to the audio coding scheme that matches the short-term linear prediction efficiency of the current audio frame.

2. The method according to claim 1, wherein the determining an audio coding scheme that matches the short-term linear prediction efficiency of the current audio frame comprises:

if the short-term linear prediction efficiency of the current audio frame is greater than or equal to a threshold, determining that the audio coding scheme that matches the short-term linear prediction efficiency of the current audio frame is a linear prediction based audio coding scheme;

and/or

if the short-term linear prediction efficiency of the current audio frame is less than a threshold, determining that the audio coding scheme that matches the short-term linear prediction efficiency of the current audio frame is an audio coding scheme not based on linear prediction.

3. The method according to claim 1, wherein the determining an audio coding scheme that matches the short-term linear prediction efficiency of the current audio frame comprises: determining a second linear prediction efficiency interval within which the short-term linear prediction efficiency of the current audio frame falls, and determining, according to a mapping relationship between a linear prediction

efficiency interval and a linear prediction based audio coding scheme, a second audio coding scheme that is in a mapping relationship with the second linear prediction efficiency interval, wherein the second audio coding scheme is an audio coding scheme that matches the short-term linear prediction efficiency of the current audio frame, and the second audio coding scheme is a linear prediction based audio coding scheme or an audio coding scheme not based on linear prediction.

4. The method according to any claim of claims 1-3, wherein the change rate is a ratio or a reciprocal of a ratio of the energy of the current audio frame obtained before the short-term linear prediction is performed on the current audio frame to the energy of the linear-prediction residual of the current audio frame.

5. An audio coder, comprising:

an estimation unit, configured to estimate short-term linear prediction efficiency of a current audio frame, wherein the short-term linear prediction efficiency is a change rate of energy of the current audio frame, the energy of the current audio frame is obtained before and after short-term linear prediction of the current audio frame is performed on the current audio signal, and the energy of the current audio frame obtained after the short-term linear prediction is performed is the energy of the linear-prediction residual of the current audio frame;

a determining unit, configured to determine an audio coding scheme that matches the short-term linear prediction efficiency of the current audio frame that is estimated by the estimation unit; and

a coding unit, configured to perform audio coding on the current audio frame according to the audio coding scheme that matches the short-term linear prediction efficiency of the current audio frame and that is determined by the determining unit.

6. The audio coder according to claim 5, wherein the determining unit is specifically configured to:

if the short-term linear prediction efficiency of the current audio frame is greater than or equal to a threshold, determine that the audio coding scheme that matches the short-term linear prediction efficiency of the current audio frame is a linear prediction based audio coding scheme;

and/or

if the short-term linear prediction efficiency of the current audio frame is less than a threshold, determine that the audio coding scheme that matches the short-term linear prediction efficiency of the current audio frame is an audio coding scheme not

based on linear prediction.

7. The audio coder according to claim 5, wherein the determining unit is specifically configured to: determine a second linear prediction efficiency interval within which the short-term linear prediction efficiency of the current audio frame falls, and determine, according to a mapping relationship between a linear prediction efficiency interval and a linear prediction based audio coding scheme, a second audio coding scheme that is in a mapping relationship with the second linear prediction efficiency interval, wherein the second audio coding scheme is an audio coding scheme that matches the short-term linear prediction efficiency of the current audio frame, and the second audio coding scheme is a linear prediction based audio coding scheme or an audio coding scheme not based on linear prediction.

8. The audio coder according to any claim of claims 5-7, wherein the change rate is a ratio or a reciprocal of a ratio of the energy that is of the current audio frame and obtained before the short-term linear prediction is performed on the current audio frame to the energy of the linear-prediction residual of the current audio frame.