Scalar quantization for audio coding

Abstract

There are described techniques for encoding and decoding audio signals. A decoder (10), configured to generate an audio signal (16) from a coded signal (3) representing the audio signal, may include:

a coded signal reader (560), configured to read the coded signal (3), thereby providing a plurality of indexes (556);

a scalar dequantization module (500), including:

a plurality of quantization index converters (355), each quantization index converter (555) being configured to convert an index (556) of the plurality of indexes onto a corresponding latent scalar value (551), so that a plurality of latent scalar values (551) form a first latent audio signal representation (550) of the audio signal; and

a first learnable section (540) to provide a second latent representation (530) from the first latent audio signal representation (550);

a second learnable section (520) including at least one learnable layer and configured to generate the audio signal (16) from the second latent audio signal representation (530).

Fig.9