Method and Apparatus For The Prediction of Audio Signals

Abstract

The invention describes a signal prediction apparatus for lossless audio signal compression, that utilises a cascade arrangement of adaptive linear predictors controlled by a controller. The controller can instruct some of the adaptive linear predictors to not process signals but to simply bypass the signal to its output. The decision on whether to instruct an adaptive linear predictor to bypass a signal is based on the predictive gain achieved by the previous predictor. Thus, the controller is able to maintain a predictive gain by adjusting the number of predictors used, according to the characteristics of the audio signal. The controller produces information on which predictors were used to predict the audio signal, which is combined with output of the predictors to produce a residual signal for lossless compression. A recovery apparatus is also described.

FIG.1