Wideband Audio Compression Using Wrapped Linear Prediction And The Discrete Wavelet Transform

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Summary

In this paper, an audio coder using the discrete wavelet transform (DWT) and a warped linear prediction (WP) model, is proposed. In contrast to conventional LP, WLP allows for the control of frequency resolution closely match the response of the human auditory system. The residual from the inverse WLP filtering is analyzed by a wavelet filterband designed to approximate the critical bands. For monophonic signals sampled at 44.1 KHz, the coder achieves near transparent quality at an average bitrate of 64Kb/s.

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