

Warped ARMA Filters In High Quality Audio Coding

Deriche, M. Ning, D.; Dept. of Electr. Eng., King Fahd Univ. of Pet. & Miner., Dhahran,
Saudi Arabia;

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King Fahd University of Petroleum & Minerals

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Summary

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

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