AN IMPROVED PROPORTIONATE MULTI−DELAY BLOCK ADAPTIVE FILTER FOR PACKET−SWITCHED NETWORK ECHO CANCELLATION (TueAmOR12)

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Abstract :

We present an adaptive echo cancellation algorithm for sparse echo path impulse responses. This new approach exploits both the robustness of the improved proportionate normalized least−mean−square (IPNLMS) algorithm and the efficient implementation of the multi−delay (MDF)adaptive filtering algorithm inheriting the beneficial properties of both. Evaluation results are presented and the computational complexity is also discussed. Both speech and white Gaussian noise simulation results show that the IPMDF algorithm outperforms the MDF and IPNLMS algorithms for both sparse and dispersive echo path impulse responses.

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