BLIND SEPARATION OF CONVOLUTIVE MIXTURE OF SPEECH SIGNALS (MonPmOR1)

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Abstract :

We present in this paper an improvement for our previous blind source separation of speech signals based on the joint diagonalization of the time varying spectrum matrices of the observations, which uses the energy profiles to handle the problem of permutation ambiguity in the frequency domain. Two new techniques are proposed to improve the estimation of profiles which was used for permutation corrections. Simulations using real impulse response of acoustic room show that these novel profiles estimation methods improve the efficiency of our algorithm, which performs well even in the difficult reverberation environment characterized by long response .

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