COMBINED SPATIAL/BEAMFORMING AND TIME/FREQUENCY PROCESSING FOR BLIND SOURCE SEPARATION (WedAmOR8)

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Abstract :

Convolutive blind source separation and adaptive beamforming have similar goals and similar system structure. Both attempt to extract selected source signals from observed sensor mixtures by a filter array. However, time and frequency information are utilized in convolutive blind source separation while spatial information of source signals or sensor array is used in adaptive beamforming. In this paper, we start with a brief introduction of blind source separation and adaptive beamforming. Next, we review approaches combining spatial information used in beamforming with time/frequency processing used in convolutive blind source separation. We also present a new proposed combination approach and simulation results.

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