



## PERFORMANCE DEGRADATION DUE TO BLINDNESS IN SEPARATION OF MIMO-FIR SYSTEMS OVER COST207 CHANNELS (WedPmPO1)

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★ Abstract :

This paper considers the performance penalty of a blind, compared to a non-blind, separation technique of a MIMO-FIR channel. In the blind method the mixing filters are first identified, while they are assumed to be known in the non-blind case. The blind system identification is performed using a recently proposed method based on cumulant subspace decomposition. Separation is then achieved by the FIR part of the mixing system inverse, which minimizes the cross-channel power. The performance penalty due to blindness is investigated for the case when the channel order is underestimated. Results of average residual cross-channel power of the wireless COST207 channel model are included.