

Blind Identification of Minimum Phase Channels Based On Higher Order Cumulants

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Abstract : This paper describes a blind algorithm, which is compared to the Zhang's and Safi's algorithms, for estimating of the minimum phase channel parameters. In order to identify blindly the impulse response of these channels, we have used Higher Order Statistics (HOS) to build our algorithm. The simulation results in noisy environment, demonstrate that the proposed method could estimate the phase and magnitude with high accuracy of these channels blindly and without any information about the input, except that the input excitation is identically and independent distribute (i.i.d) and non-Gaussian.

Keywords : System Identification, Higher Order Statistics, Communication Channels.

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