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Reduced Complexity of ML Detection Combined with DFE

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Abstract : In multiple input multiple output-orthogonal frequency division multiplexing (MIMO-OFDM) systems, many detection schemes have been developed to improve the error performance and to reduce the complexity. Maximum likelihood (ML) detection has optimal error performance but it has very high complexity. Thus, this paper proposes reduced complexity of ML detection combined with decision feedback equalizer (DFE). The error performance of the proposed detection scheme is higher than the conventional DFE. But the complexity of the proposed scheme is lower than the conventional ML detection.

Keywords : detection, DFE, MIMO-OFDM, ML
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