A Cooperative Space-Time Transmission Scheme Based On Symbol Combinations

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Abstract : This paper proposes a cooperative Alamouti space time transmission scheme with low relay complexity for the cooperative communication systems. In the proposed scheme, the source node combines the data symbols to construct the Alamouti-coded form at the destination node, while the conventional scheme performs the corresponding operations at the relay nodes. In simulation results, it is shown that the proposed scheme achieves the second order cooperative diversity while maintaining the same bit error rate (BER) performance as that of the conventional scheme.