

## Improved Performance Using Adaptive Pre-Coding in the Cellular Network

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**Abstract :** This paper proposes the cooperative transmission scheme with pre-coding because the cellular communication requires high reliability. The cooperative transmission scheme uses pre-coding method with limited feedback information among small cells. Particularly, the proposed scheme has adaptive mode according to the position of mobile station. Thus, demand of recent wireless communication is resolved by this scheme. From the simulation results, the proposed scheme has better performance compared to the conventional scheme in the cellular network.

**Keywords :** CDD, cellular network, pre-coding, SPC

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