

## **An Adaptive Cooperative Scheme for Reliability of Transmission Using STBC and CDD in Wireless Communications**

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**Abstract :** In broadcasting and cellular system, a cooperative scheme is proposed for the improvement of performance of bit error rate. Up to date, the coverage of broadcasting system coexists with the coverage of cellular system. Therefore each user in a cellular coverage is frequently involved in a broadcasting coverage. The proposed cooperative scheme is derived from the shared areas. The users receive signals from both broadcasting base station and cellular base station. The proposed scheme selects a cellular base station of a worse channel to achieve better performance of bit error rate in cooperation. The performance of the proposed scheme is evaluated in fading channel.

**Keywords :** cooperative communication, diversity, STBC, CDD, channel condition, broadcasting system, cellular system

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