

Variable Splitting Transmission in Multi-Relay Cooperative Communications for SC-FDMA

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Abstract— In recent years, cooperative communications are widely studied. Cooperative communications can obtain the space diversity as multiple-input multiple-output (MIMO) systems. Moreover, the multi-relay cooperative communications can improve the system performance by using several relay nodes. In MIMO systems, the optimum packet splitting method has been proposed to obtain more strongly diversity. However, the optimum splitting method is not proposed in the multi-relay cooperative communications. Therefore, in this paper, we propose the optimum packet splitting method in the multi-relay cooperative communications.

Keyword—SC-FDMA, cooperative communications, multi-relay, packet splitting

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