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(54) Title: SELF-INTERFERENCE CANCELLATION FOR TWO-PARTY RELAYED COMMUNICATION ✓

(57) Abstract

A source transmitted signal is cancelled at the receiver (110) associated with the transmitter (104), so that the desired received signal can be extracted from a composite received signal consisting of the source signal relayed from the relay station (Relay Device) along with the desired received signal from the other user in the pair, plus additive noise. The invention takes advantage of the fact that each of the users (User 1, User 2) knows a priori the exact structure of its source transmitted signal and can estimate the channel characteristics between the relay station and itself.

