Distributed cooperative spatial multiplexing with Slepian-Wolf code

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Abstract:
We consider distributed spatial multiplexing, in which a group of single-antenna terminals cooperate to transmit information to another such group using spatial multiplexing, thus increasing the capacity of the link between them. We focus on the link between relays and final destination, making use of Slepian-Wolf coding to compress the data and thus increase overall spectral efficiency. Here we implement the Slepian-Wolf coding using a Repeat-Accumulate-Repeat (RAR) code, and also apply an outer code.