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Performance of LTE Multicast Systems in the Presence of the Colored Noise Jamming

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Abstract : The ever going evolution of advanced wireless technologies makes it financially impossible for military operations to completely manufacture their own equipment. Therefore, Commercial-Off-The-Shelf (COTS) and Modified-Off-The-Shelf (MOTS) are being considered in military mission with low-cost modifications. In this paper, we focus on the LTE multicast systems for military communication systems under tactical environments with jamming condition. We examine the influence of the colored noise jamming on the performance of the LTE multicast systems in terms of the average throughput. The simulation results demonstrate the degradation of the average throughput for different dynamic ranges of the colored noise jamming versus average SNR.

Keywords : performance, LTE, multicast, jamming, throughput
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