C. Performance With Different Channel Covariance Matrix

In the third experiment we compare the performance of the systems for three different transmission channels, all with $L = 4$ paths but different channel covariance matrices.

The process to generate the time-variant channel for each user is as in the first experiment. The first channel assumes uncorrelated transmission paths of equal weight, i.e., $|p_{j,l}|^2 = 1/L$, $j = 1, 2$ and $l = 0, 1, 2, 3$, as in the first experiment. This type of channel is named Uniform in the performance curves. For the second channel we assume that the average power of each path decays exponentially, such that $|p_{j,l}|^2 = \sigma_0^2\exp(-l)$, $l = 0, 1, 2, 3$, and $\sigma_0^2 = 1 - \exp(-1)/(1-e^{-L})$ [27]. This channel is named as Exponential in the figures. Finally, the third channel results from the multiplication of a matrix $\tilde{K}$ by the channel vector generated as in the Exponential channel.