

“A critical overview of analytical MIMO channel models”, pp. 204-210

Claude Oestges and Bruno Clerckx

Abstract – In this paper, we review a number of simplified analytical models of Rayleigh fading MIMO channels. Specifically, we highlight the assumptions behind three popular models: the Kronecker model, the virtual channel representation and the eigenbeam model. Then, we assess the quality of these models in terms of the performance achieved when predicting several propagation parameters and metrics, using a synthetic finite scatterer description of the channel for several array configurations. We also compare our conclusions with conclusions reached from the investigation of measured channels in the framework of COST 273.