

Indoor to Outdoor Propagation - Measuring and Modeling of Femto Cells in LTE Networks at 800 and 2600 MHz

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Abstract:

Femto cells in LTE are attracting more and more attention since they are expected to provide substantial indoor network coverage. In contrast, the interference level on the outside increases with every new indoor base station, so that it is crucial to gain in-depth knowledge of the propagation phenomena from indoor to outdoor environments. Therefore, an exhaustive measurement campaign has been carried out to prove the usability of femto cells. Furthermore, a prediction model has been set up that considers the dominant effects in femto cell deployments, namely transmission and vertical diffraction.