

Forschungspraxis

Investigation of Peak-to-Average-Power Ratios of Probabilistic Shaping

The peak-to-average power ratio (PAPR) is an important metric for multicarrier systems, as it allows to investigate how efficient such a system can be operated in practice: Power amplifiers should be operated in their linear region for optimal efficiency. However, a high PAPR may cause the amplifier to operate outside this region. Alternatively, if the signal is clipped, the power amplifier may be operated well in its operating region, but the clipping deteriorates the signal.

In this research internship, the student will investigate the effect of probabilistic shaping on the PAPR and conduct comparisons regarding different schemes for its mitigation.

Advisors

Fabian Steiner, Tobias Prinz