

The ARTIST4G interference mitigation framework (IMF-A)

In mobile radio networks we see already today a strong rise in throughput and capacity demand and expect even more in the future, e.g. due to the wide spread usage of smart phones. Higher spectral efficiency is one important key to more capacity. In the EU founded project ARTIST4G we developed a novel interference mitigation framework IMF-A providing at least under ideal conditions a significant higher spectral efficiency and coverage compared to state of the art 3GPP results. Main building block of IMF-A is a so called joint transmission cooperative multipoint transmission (JT CoMP), which allows to serve the user equipments (UE) of a cooperation area comprising several cells simultaneously interference free. Theoretical investigations promised for network wide CoMP systems large gains. Under more realistic conditions there exist many challenges, where some could be solved within the ARTIST4G time frame and some will need further considerations. The Presentation will provide beside the IMF-A framework a short history of CoMP, an introduction to the main CoMP schemes, and the high level status with respect to 3GPP LTE standardization.