

The Forschungszentrum Telekommunikation Wien (FTW) is a dynamic company with an international atmosphere that carries out application-oriented research in telecommunications. Our mission is to fill the gap between science and industry, pursuing a challenging research program in collaboration with both academic and industrial partners. Currently we are offering a Master thesis for the following topic:

Interference Management using Channel Measurements

In recent years, with multiple-input multiple-output (MIMO) devices penetrating the mass market, the spatial interference from MIMO devices is growing constantly and become a crucial limitation in next generation cellular systems. As a result, interference management techniques have gain great importance. The recent emerging technique of interference alignment has shown that, by pushing interfering signals into a reduced-dimensional subspace at each receiver, the capacity of wireless networks can be much higher than previously believed.

Using the data from a measurement campaign with a state-of-the-art channel sounder, the student is expected to identify useful performance metrics to evaluate and validate the real-world performance of MIMO interference alignment in various scenarios.

Needed skills include:

- A self-driven and autonomous (research oriented) working style.
- Good Matlab programming skills.
- A solid background in MIMO communications and information theory for wireless communications.
- Knowledge of current cellular technology is a plus.

The expected duration of the master thesis is 6 month. For master students we are able to provide a monthly financial compensation.

FTW offers researcher positions for talented scientists interested to pursuit a doctoral degree. An excellent master thesis is a strong plus for a further possible employment at FTW.

Applications should be sent to
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