

# Near-field scanner

Project work, BA or MA thesis, student assistant

## Motivation

- Near-field scanners are mainly used for EMC and antenna characteristics
- For example, probes must be developed, characterized and compensated, data must be evaluated and processed
- Topics range from practical over simulation tasks to hybrid approaches with measurement and simulation to pure mathematical problems
- Possibility of scientific publication for appropriate topics
- Student work on the analysis, programming and improvement of the near-field scanner

## Possible Tasks

- Probe design for frequencies from a few MHz to > 100 GHz
- Determination or improvement of the interaction between probe and the device under test
- Develop algorithms to compensate for the probe characteristics
- Further processing of data in simulations (near to far field, interaction with environment/human)
- Measurement acquisition and improvement of near-field data (with respect to noise effects)

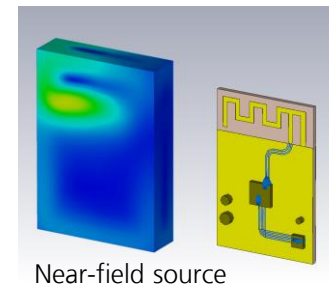
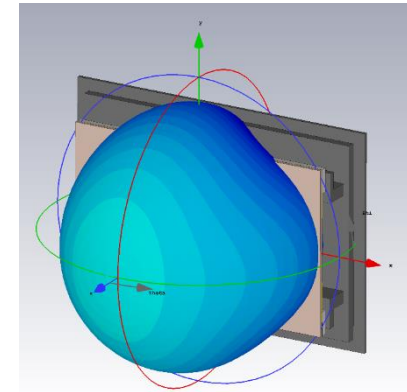
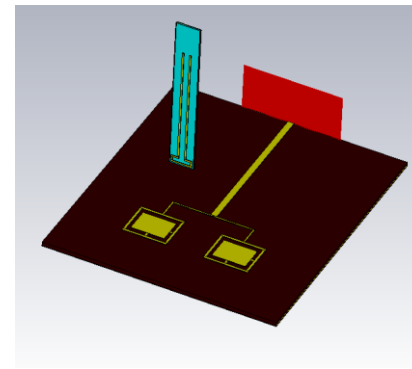
## Requirements

- Good knowledge of electromagnetic processes and in Python or MATLAB
- Course (ideal): Theoretische Elektrotechnik / Fields and Waves completed
- Optional: Experience with CST-Studio Suite

## Contact

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Near-field source

