

## INSTITUTSKOLLOQUIUM

Am **Donnerstag**, dem **16.06.2016**, spricht um **13:00** im Raum **Sr HU 011**

**Marco Antonio Marques Marinho**

Universidade de Brasília, Departamento de Engenharia Elétrica

### Antenna Array Interpolation for Signal Processing

Many important signal processing techniques such as Spatial Smoothing, Forward Backward Averaging and Root-MUSIC, rely on antenna arrays with specific and precise structures. Arrays with such ideal structures, such as a centrohermitian structure, are often hard, if not impossible, to build in practice. Array interpolation is used to enable the usage of these techniques with imperfect arrays. Over the course of the presentation a base approach for adaptively interpolating arrays taking into account the incoming signals will be presented. This approach seeks to address problems that existed with previous approaches present in the literature such as multiple estimates for the same signal and how to divide the field of view of the array. Extensions to this base approach will also be presented, dealing with problems such as imperfect knowledge of array response and nonlinear relationships between real and interpolated arrays.

Die Hochschullehrer des Instituts für Informationstechnik laden Sie herzlich dazu ein.

Ilmenau, den 03.06.2016