Seminar über Microwave Physics and Atmospheric Physics

Referent/in: Giuseppe Addamo, CNR, Torino, IT

Titel: Developments on Single- & Muti-Band Antenna-Feed Chains at CNR-IEIIT

The design of single- and multi-band microwave systems is of the greatest interest in several modern applications, such as satellite communication and scientific equipment for universe and Earth science. According to the application, electrical and mechanical requirements change, however, high polarization purity and low losses are common desired features as well as the chance of integrating of different frequency bands in the same system. As an example, the trend in modern telecommunication satellites is to allocate different services in the same feed working in single or dual polarization in both receiver and transmitter modes. Wide band and polarization purity are key issues also in the design of microwave and millimeter-wave receivers used in scientific surveys, since high sensitivity of instrumentation is necessary. In this scenario, each device composing the antenna-feed chain has to be designed in order to guarantee significant electromagnetic performances and, at the same time, high integration levels. In this talk, we discuss the main architectures and solutions for two of the most important bottlenecks of passive antenna feed chains, i.e. Orthomode Transducers and Horns. In this contest, we will present some interesting results achieved by the Applied Electromagnetics & Electronic Devices (AE&ED) group of the CNR-IEIIT of Italy in the framework of different research activities in the framework of industrial and research contracts.

Zeit: Friday 08.03.2024, 10:15 Uhr

Ort: Room A97
https://unibe-ch.zoom.us/j/97081325603?pwd=d0ozME5xOS9pQVNxallLem81VHQyZz09
Meeting ID: 970 8132 5603
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