

**Duration: 08:30 - 12:30**

**Room: Istanbul**

**WM-04**

**High Power RF and Microwave Amplifiers and Generators**

**Organiser:**

Georg Böck, TU Berlin, Germany

**Abstract**

This half-day workshop presents topical development trends in the field of very high power signal generation and amplification. Starting from tube based microwave power generation new transistors using Si-, GaAs- and GaN-Technology are more and more taking over former tube dominated areas like broadcast, radar, jamming and industrial applications. Pros and Cons of tubes and solid-state devices will be discussed. The talks span from device level to circuit design and system level considerations. It will discuss also efficiency enhancement concepts of high power broadband transmitters for analog and digital broadcast services. Another topic will review high power RF generators in the kilowatt range with operating frequencies up 100 MHz for plasma applications. Essential requirements for these generators are high efficiency and extreme ruggedness including the ability of temporarily withstanding 100% reflected power. This workshop will discuss several amplifier- and power-combining topologies suitable for the realisation of those amplifiers with highly reflective loads. Moreover, insights with respect to product qualification, lifetime testing and industrialized, cost effective high volume production will be outlined.

***Programme***

***08:30 - 09:20 Can Solid State Devices Replace Tubes in the Near Future?***

Marcel Mallah, Fricke und Mallah Microwave Technology GmbH, Germany

***09:40 - 10:10 High Power RF-Generators for Plasma Excitation***

Daniel Gruner, COMET AG, Plasma Control Technologies, Switzerland

***10:10 - 10:50 Break***

***10:50 - 11:40 Bandwidth isn't Everything - Efficiency Rules the World***

Lothar Schenk, Rohde & Schwarz, Germany

***11:40 - 12:30 High Power Broadband Amplifiers for EMC Applications***

Florian Ohnimus, Rohde & Schwarz, Germany