

Eighth CW and High Average Power RF Workshop



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Type: **Oral presentation**

Test of a 500MHz / 65kW Solid State Amplifier

Thursday, May 15, 2014 5:00 PM (30 minutes)

High Power Solid State RF Amplifiers are being pushed in the market. With the latest generation of LDMOS transistors a high RF power per unit can be generated. Many of these RF modules combined in a single system is a serious competitor to the long established tube technology. Several solid state RF systems have already been realized and used very successfully for RF generation at particle accelerators.

Ampegon has a long tradition in engineering and in the manufacture of tube-based amplifier systems and transmitters, while solid state technology was, so far, dominant in medium wave transmitters up to 300kW. In collaboration with the Paul Scherrer Institut we have successfully industrialized a PSI development of a solid state RF amplifier for 500MHz. The result is that both technologies could be tested and compared. The presentation will give an overview over our work and give an idea about the peculiarities of each technology.

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