CAS course on "RF for Accelerators", 18 June - 01 July 2023, Berlin Germany



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## **RF** power generation II

Wednesday, 21 June 2023 11:00 (1 hour)

We reviewed the main types of RF power amplifiers used for particle accelerators.

It covers vacuum beam tubes, specifically gridded tubes, including tetrodes, inductive output tubes, klystrons, and transistor amplifiers, with power outputs greater than 10 kW CW or 100 kW pulsed at frequencies from 50 MHz to 1 GHz.

Functioning principle and construction aspects of these various items were presented.

Factors affecting the satisfactory operation of amplifiers, including cooling, matching, and protection circuits, were discussed.

The presentation concludes with a summary on the topic of efficiency.

Presenter: MONTESINOS, Eric (CERN)