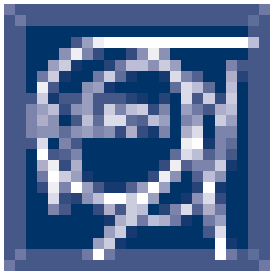

Contribution ID: **33** Type: **tutorial**

Tutorial: Algorithms for pulsed digital RF control

Thursday 13 October 2005 08:30 (45 minutes)

Ten years ago digital hardware offered for the first time the real time processing power required for particle accelerators RF control (LLRF). This opened the opportunity to implement control algorithms hardly realizable with analog electronics like adaptive feed forward or exception handling.
In contrast to digital control used in automotive engineering, hi-fi and telecommunication sector the data rates to be processed are much higher and the latency has to be much shorter in digital LLRF. Compared to algorithms used in these
sectors LLRF algorithms are in an initial state.
After a short overview some present LLRF algorithms like digital RF feed back, RF feed-forward, cavity resonance control, exception handling and others will be explained illustrative of implementations at the DESY TTF.

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Session Classification: Closing session