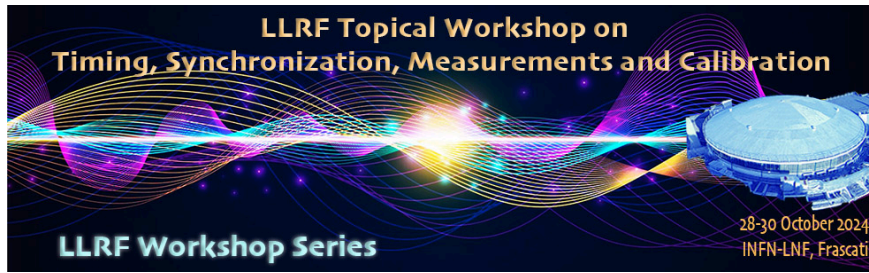


LLRF Topical Workshop - Timing, Synchronization, Measurements and Calibration



Contribution ID: 55

Type: Poster

APS-Upgrade Storage Ring RF Noise Reduction for Beam Stability

Tuesday, 29 October 2024 16:40 (1h 50m)

The new Advanced Photon Source Upgrade (APS-U) storage ring is now operating and x-ray beamlines are coming back online. Targeted suppression of 60-Hz-harmonic-related rf amplitude and phase noise from megawatt-class klystrons has played a role in achieving orbit stability at the micron level and reducing beam energy fluctuations. Measurements of beam stability are made from an analysis of synchronous beam position monitor data available from the APS-U fast data acquisition (DAQ) system. The design and tuning of the noise suppression system is presented along with its improvement to beam stability.

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