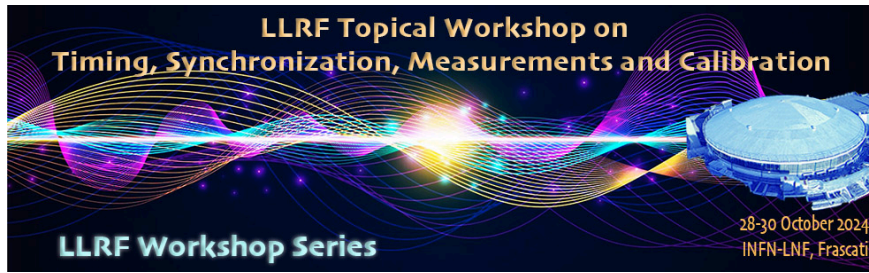


# LLRF Topical Workshop - Timing, Synchronization, Measurements and Calibration



Contribution ID: 11

Type: Oral

## Phase distribution system of HEPS

*Wednesday, 30 October 2024 16:35 (25 minutes)*

HEPS is a new built 6GeV 4th-gen synchrotron radiation light source and under beam commissioning right now. The phase distribution system includes master oscillator system and phase reference line system. The DDS-based MO generates 499.8MHz and 166.6MHz, then distributes to Linac, booster RF and storage ring RF, beam station, as well as BI electronics clock around the facility. The 499.8MHz reference signals are transferred >400m by phase stabilized optical fiber and CW lasers. The 499.8MHz jitter at end point is <36fs(10Hz-1MHz), the phase drift is <120fs(peak-to-peak). The whole reference frequency/phase generation and distribution system will be introduced.

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