

Development of DCS for forward spectator detectors at the BM@N, MPD/NICA and NA61/SHINE experiments

Thursday, 14 July 2022 15:00 (20 minutes)

Abstract

The BM@N and MPD experiments at NICA facility (Dubna, Russia) will use the forward hadron calorimeters (FHCa) for centrality and reaction plane determination in the heavy ion collisions. Also the BM@N setup features Scintillation Wall and the Beam Hodoscope detectors for charged fragments measurements. The NA61/SHINE experiment at CERN is using two projectile spectator detectors (Main PSD and Forward PSD) for centrality and reaction plane measurements.

All detectors have light readout based on silicon photomultipliers. In each experiment forward detectors have several hundred readout channels.

Forward detectors share the common architecture that simplifies the development of the Detector Control System (DCS). The developed algorithms and software for the DCS of these detectors to control the bias MPPCs voltages and the temperature of MPPCs and its integration into the experiment-wide DCS will be reported.

The speaker is a student or young scientist

No

Section

1. Experimental and theoretical studies of nuclear reactions

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Session Classification: Intermediate and high energies, heavy ion collisions