

NICA booster control system: thermometry

Monday, 15 April 2019 17:15 (15 minutes)

NICA is a new accelerator complex being constructed on the JINR aimed to provide collider experiments with heavy ions. It consists of Electron String Ion Source, 6.2 MeV/u linac, 600 MeV/u booster synchrotron, upgraded Nuclotron and ion collider.

The superconducting booster synchrotron is being assembled presently.

The report describes a system, developed in JINR, to perform precise temperature measurement of NICA booster superconducting magnets.

Thermometry system consists of more than 200 resistive TVO temperature sensors, National Instruments PXIe controllers and data acquisition modules, TangoControls-based software and web-based client application.

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Session Classification: Particle accelerators and nuclear reactors

Track Classification: Particle Accelerators and Nuclear Reactors