



Contribution ID: 26

Type: **not specified**

The facility for manufacturing of HTS cables and solenoids

Tuesday 10 June 2025 11:20 (10 minutes)

There are two tasks require the use of pulse mode HTS (high-temperature superconducting) magnets at the NICA accelerator complex. The first is a 3 MJ inductive energy storage device SMES in the Booster and Nuclotron power supply system, the solenoid has a diameter and height of just under a meter and it will be manufactured in the 25th. And there is the task at the R&D stage is the development of magnets for the modernization of the Nuclotron. For pulse magnets, it is necessary to make windings from cables with currents of several kA. For this task, a cable machine has been developed and manufactured at JINR with the possibility of manufacturing HTS cables in various configurations and with different characteristics, as well as winding solenoids from this cable. The report will talk about this machine and some of the technical solutions that make it possible to create high-quality superconducting cables.

Summary

Presenter: MATYUKHANOV, Evgeny (JINR LHEP)

Session Classification: Section Talks

Track Classification: Sectional talks: VBLHEP