Beam test possibilities at JINR and Fermilab

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Testing of Intensity Frontier experimental setups, particularly magnet and detector components using actual proton, neutron, gamma sources is crucial to maximize their performance. Especially important is testing using secondary particle beams originating from spallation reactions using primary accelerator beams, as the most proximate to those in which the components will reside during the lifetime of an experiment.

Several actual and potential testing facilities in two organizations, Joint Institute for Nuclear Research, Dubna, and Fermi National Accelerator Laboratory will be discussed. Neutron production targets used at JINR Nuclotron and Phasotron accelerators for ADS-related research as well as Pulsed Fast Reactor will be shown.

Among Fermilab facilities, such as MTest primary beamline, Muon Test Area, Neutron Therapy Facility, ES&H Instrumentation Group Facility, Main Injector Collimator area and particle types, energies, fluences and beam parameters will be discussed.