

High Power Targets at J-PARC (part 2)

Wednesday, 31 May 2017 09:25 (45 minutes)

Japan Proton Accelerator Research Complex, J-PARC consists of a series of world-class proton accelerators and the experimental facilities. J-PARC is a multi-purpose facility where the variety of secondary-particle beams are produced and are used in a wide range of scientific fields, such as fundamental nuclear and particle physics, materials and life science, and nuclear technology. Neutron, pion, muon, kaon and neutrino beams are produced through collisions between the high-power proton beams and target materials. Requirement to increase the intensity of the proton beam is getting higher and higher for further advanced researches. Consequently, the thermal load and the irradiation effect to the target materials are also getting severer. Simultaneously, cooling methods to remove the thermal load are restricted by requirements from physics experiment. This talk will cover neutrino facility and hadron facility at J-PARC. Facility overview, target challenges and needs, and on-going developments will be introduced.

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Session Classification: Session 1: Future HPT Facilities Requirements