

Abstract Submitted
for the HAW05 Meeting of
The American Physical Society

Secondary Beam Lines in the Hadron Hall at J-PARC HIROYUKI NOUMI, KEIZO AGARI, ERINA HIROSE, MASAHARU IEIRI, JUN IMAZATO, YOHJI KATOH, MICHIFUMI MINAKAWA, YOSHINORI SATO, SHINYA SAWADA, YOSHIHIRO SUZUKI, HITOSHI TAKAHASHI, TOSHIYUKI TAKAHASHI, MINORU TAKASAKI, KAZUHIRO TANAKA, AKIHISA TOYODA, YOSHIKAZU YAMADA, YUTAKA YAMANOI, HIROAKI WATANABE, High Energy Accelerator Research Organization (KEK), HADRON BEAM LINE GROUP TEAM — A beam-line facility for nuclear and particle physics experiments, Hadron Hall, is being constructed at J-PARC in Tokai, Japan. A high-power proton beam of 750 kW from the 50-GeV Proton Synchrotron will be extracted to the Hadron Hall. High-intensity secondary kaons, pions, anti-protons, etc will be produced by irradiating a target with the primary proton beam. Huge amount of power deposit at the target will arise very high radiation and heated environment. Thus, beam-line equipments around the target must be resistant against high radiation dose and heat deposit. Since only a target, T1, will be placed in the Hadron Hall at the beginning, some secondary beam lines are designed to share T1 in order that various experiments can be carried out efficiently. Unique layout and performances of the secondary beam lines and relevant R&D works will be presented.

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Date submitted: 25 May 2005

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