Abstract for an Invited Paper
for the HAW09 Meeting of
The American Physical Society

Hadronic Physics at J-PARC

SHINYA SAWADA, High Energy Accelerator Research Organization (KEK)

J-PARC, Japan Proton Accelerator Research Complex, has just finished its 1^{st} phase construction, and got the 1^{st} beams at the experimental facilities. Among the experimental facilities, such as the Materials and Life Science Experimental Facility and the Neutrino Experimental Facility, the Hadron Experimental Facility is for fixed target experiments which utilize the secondary beams produced by the proton beam slowly extracted from the 50-GeV synchrotron. At the Hadron Facility, the K1.8BR beam line, for secondary beams (pi, K, ...) up to 1.1 GeV/c, is already available, and the K1.8 beam line, for secondary beams up to 1.8 GeV/c, will be ready by the end of October, 2009. The neutral kaon beam line, KL, is also under construction and will be tested in this fall. Other beam lines, such as K1.1BR (for secondary beam up to 0.8 GeV/c), K1.1 (up to 1.1 GeV/c), and high-momentum beam line (low intensity primary protons and high momentum unseparated secondary beams), are in preparation. Among many experiments proposed so far (http://j-parc.jp/NuclPart/Proposal_e.html), some nuclear/hadron physics experiments as well as particle physics experiments are being conducted at these beam lines. In this talk, hadron physics experiments at the Hadron Experimental Facility of J-PARC are introduced with a review of their predecessors. In addition, a summary will be presented on the discussions related to J-PARC during the previous two days of the US-Japan seminar titled "Meson Production Reactions at Jefferson Lab and J-PARC."