Status of J-PARC and Its Science

J-PARC Center    Shoji Nagamiya

The J-PARC is a multipurpose facility, ranging from materials and life science to nuclear and particle physics, by using neutron, muon, kaon, pion, and neutrino beams. The facility construction was completed about two and a half years ago in the spring of 2009, under the cooperation of two organizations, KEK and JAEA. In order to produce high-flux of these secondary beams, the goals of the accelerator power are 1 MW proton beams at 3 GeV, with 400 MeV Linac injector, and 0.75 MW beams at 50 GeV, respectively.

I would like to overview experimental programs at J-PARC, in particular, with emphasis on the Neutrino and Hadron facilities. The research activities at the Materials and Life Science facility will be described only briefly.

Unfortunately, the entire facility has been damaged significantly by the huge earthquake in Japan on March 11, 2011. Therefore, I would like to present also how the restoration of this facility is in progress.