RCNP, OSAKA UNIVERSITY
NUCLEAR PHYSICS
EXPERIMENT SEMINAR

Title	Future QCD facility at SPS (CERN) extracted beams
Speaker	Prof. Oleg Denisov(Spokesperson of COMPASS) INFN-Torino and CERN
Date and Time	March 6th (Tue) in 2018 10:30 - 12:00
Place	Lecture room 2 on the 6th floor of RCNP main building

Abstract:

Possibility to use high intensity secondary beams at the SPS M2 beam line in combination with the world's largest polarized target, large liquide hydrogen and various nuclear targets create a unique opportunity for universal experimental facility to study previously unexplored aspects of meson and nucleon structure, QCD dynamics and hadron spectroscopy.?

High intensity hadron (pion dominated) beams already made COMPASS the world leading facility for hadron spectroscopy and hadron structure study through Drell-Yan production of di-muon pairs. High intensity muon beams, previously used for unique semi-inclusive and exclusive hard scattering programs, make possible proton radius measurement in muon-proton elastic scattering and further development of polarized exclusive hard scattering program.

Upgrades of the M2 beam line resulting in high intensity RF-separated anti-proton- and kaon-beams would greatly expand the horizon of experimental possibilities at COMPASS: hadron spectroscopy with kaon beam, studies of transverse momentum dependent quark structure for protons, pions and kaons, precise studies of nuclear effects and for the first time measurements of kaon quark-substructure.

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