

演題:「Hadron Production Measurements for Neutrino Experiments at NA61/SHINE」

講師:永井 義一氏

エトヴェシュ・ロラード大学(ハンガリー)

日時

令和5年2月1日(水)

時間

午後15時30分～17時30分

場所

コラボレーション棟コラボレーション室

概要: In current measurements of accelerator-based neutrino experiments, neutrino flux uncertainties represent a leading systematic uncertainty. Neutrino beams are created from the decays of secondary hadrons produced in hadron-nucleus interactions. The leading source of flux uncertainty is the primary and secondary hadron production processes for neutrino beams. Therefore, precise hadron production measurements are essential. The neutrino program of the NA61/SPS Heavy Ion and Neutrino Experiment (NA61/SHINE) at CERN's Super Proton Synchrotron makes measurements of hadron production. This talk will first present recent hadron production measurements for precise neutrino flux predictions needed by T2K and Fermilab long-baseline neutrino experiments. This talk will then review the performance of the latest collected data with the updated NA61/SHINE facility. Lastly, the talk will discuss the prospects for near future hadron production measurements in NA61/SHINE, including the possibility to extend the physics program to lower beamline energies.

その他:講義のスライドは英語ですが、基本、日本語で行います。英語での質疑応答は可能です。

問合せ:理学部物理学科小汐研究室(内線7905)