



Contribution ID: 25

Type: poster

Light-Meson Spectroscopy with COMPASS

Tuesday, 12 October 2010 17:26 (10 minutes)

COMPASS is a multi-purpose fixed-target experiment at the CERN Super Proton Synchrotron investigating the structure and spectrum of hadrons. One primary goal is the search for new hadronic states, in particular spin-exotic mesons and glueballs. Its large acceptance, high resolution, and high-rate capability make the COMPASS experiment an excellent device to study the spectrum of light mesons in diffractive and central production up to masses of about $2.5\text{-GeV}/c^2$. In addition COMPASS is able to measure final states with charged as well as neutral particles, so that resonances can be studied in many different reactions and decay channels.

After a short pilot run in 2004 with a $190\text{-GeV}/c$ π^- -beam on a Pb-target, which showed a significant spin-exotic $J^{PC} = 1^{-+}$ resonance around $1660\text{-MeV}/c^2$, COMPASS collected large data samples with negative and positive hadron beams on a liquid hydrogen target in 2008 and 2009.

We will give an overview of the results from the pilot-run data and present the status of various ongoing analyses of the 2008/9 data.

Primary author: GRUBE, Boris (Excellence Cluster Universe, Technische Universität München)

Presenter: GRUBE, Boris (Excellence Cluster Universe, Technische Universität München)

Session Classification: Poster

Track Classification: Poster