

Light exotic meson candidates in COMPASS

Friday 29 September 2017 11:40 (20 minutes)

The COMPASS experiment at CERN uses a high-energy pion beam scattered off protons and heavier nuclei to produce mesonic excitations, which are observed in multi-particle final states subjected to partial-wave analyses. In addition to studying the properties of established mesons with unprecedented accuracy, the large existing data samples allow us to detect possibly exotic states. These either do not fit current theoretical expectations, like the recently observed $a_1(1420)$, or carry spin-exotic quantum numbers, like the $\pi_1(1600)$. The talk will give an update on ongoing studies of these states involving novel analysis techniques and discuss possible interpretations.

Authors: Prof. KETZER, Bernhard (University of Bonn (DE)); FOR THE COMPASS COLLABORATION

Presenter: Prof. KETZER, Bernhard (University of Bonn (DE))

Session Classification: Spectroscopy of mesons

Track Classification: Spectroscopy of mesons