

Meson Production from Diffractive Pion Dissociation at COMPASS

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COMPASS is a fixed-target experiment at the CERN SPS, which investigates the structure and spectroscopy of hadrons. In 2004, a first run with a $190\text{ GeV}/c$ π^- beam took place using nuclear targets. Diffractive dissociation reactions in COMPASS provide clean access to meson resonances with masses below $2.5\text{ GeV}/c^2$, where candidates for spin-exotic states (e.g. 1^{-+}) have been discussed in the past. Within a few days of data taking, a competitive number of events on lead with $\pi^-\pi^-\pi^+$ final states were recorded. The covered range in momentum transfer t extends from 0 to a few GeV^2/c^2 allowing to study resonance production in different regimes. In this talk, we will report on the results of a partial wave analysis of this data set.

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