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Meson spectroscopy in diffractive dissociation of high-energetic pions at COMPASS

COMPASS at CERN uses hadron and muon beams with up to 200 GeV/c momentum, produced from the SPS proton beam, for investigations in hadron structure and spectroscopy.

From a pilot run with a 190 GeV/c pion beam on a lead target, various results will be presented, including the observation of the spin-exotic $\pi_1(1600)$ resonance in the momentum transfer region $0.3 < t'/(GeV/c)^2 < 1$. Furthermore, in the low-t' region interference of photon-exchange and strong production of the a_2(1320) resonance is observed, revealing the different nature of the two interactions.

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