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# Hadron structure at AMBER

*Wednesday 4 May 2022 10:00 (20 minutes)*

AMBER (Apparatus for Meson and Baryon Experimental Research) is a new experiment located on the M2 beam line of CERN SPS. The understanding of the origin of the visible mass in the universe is one of its physics goals. It is known that the Higgs boson mechanism alone is not sufficient to explain the mass of a nucleon. Another phenomenon must interplay with it to explain the emergence of the hadron mass. The AMBER collaboration proposes a broad physics program to address that question under different aspects and learn more about QCD. The experiment is foreseen to run in two phases: with conventional beams delivered by CERN and with an upgraded beamline using radio-frequency cavities to separate the hadron species from the hadron beams. This talk will focus on the Drell-Yan lepton pair, Charmonium and prompt photon production measurements dedicated to the determination of the partonic structure of the pion and the kaon to complement and to compare to the one of the proton in the aim of shedding light onto the emergence of hadron mass mechanism.

## Submitted on behalf of a Collaboration?

Yes

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