2019 Workshop on Polarized Sources, Targets, and Polarimetry



Contribution ID: 14 Type: not specified

LHC-spin: a polarized internal target for the LHC

Thursday, 26 September 2019 11:00 (20 minutes)

We discuss the application of an open storage cell as gas target for a proposed LHC fixed-target experiment LHC-spin. The target provides a high areal density at minimum gas input, which may be polarized 1H, 2H, or 3He gas or heavy inert gases in a wide mass range. For the study of single-spin asymmetries in pp interaction, luminosities of nearly 10^3 cm² s can be produced with existing techniques.

Summary

We discuss the application of an open storage cell as gas target for a proposed LHC fixed-target experiment LHC-spin. The target provides a high areal density at minimum gas input, which may be polarized 1H, 2H, or 3He gas or heavy inert gases in a wide mass range. For the study of single-spin asymmetries in pp interaction, luminosities of nearly 10^3 cm² s can be produced with existing techniques.

Primary author: LENISA, Paolo (University of Ferrara and INFN - Ferrara (Italy))

Presenter: LENISA, Paolo (University of Ferrara and INFN - Ferrara (Italy))

Session Classification: Polarized Gas Targets

Track Classification: Polarized Gas Targets