

Studies on the temperature dependent drift velocity for the HELIX Drift Chamber Tracker

Monday, August 19, 2024 4:55 PM (10 minutes)

HELIX (High Energy Light Isotope eXperiment) is a balloon experiment designed to measure abundance of cosmic ray isotopes from hydrogen to neon, with a particular interest in abundances of beryllium isotopes. HELIX aim to provide essential data to study the cosmic ray propagation in our galaxy. The Drift Chamber Tracker (DCT) in HELIX is a multi-wire gas drift chamber designed to measure the position of incident cosmic rays. It is located inside a magnet, bending the trajectory of incoming particles through 72-layers of tracking, enabling the measurement of the momentum of incoming particles. I will present my study on maximum drift distance on a wire-by-wire analysis of the DCT data and the temperature dependency of the drift velocity during the flight.

What area of study best describes your talk?

Physics

If you answered 'Other', please provide the study area.

Primary author: BARSKY-GILES, Gabrielle (Queen's University)

Presenter: BARSKY-GILES, Gabrielle (Queen's University)

Session Classification: Presentations