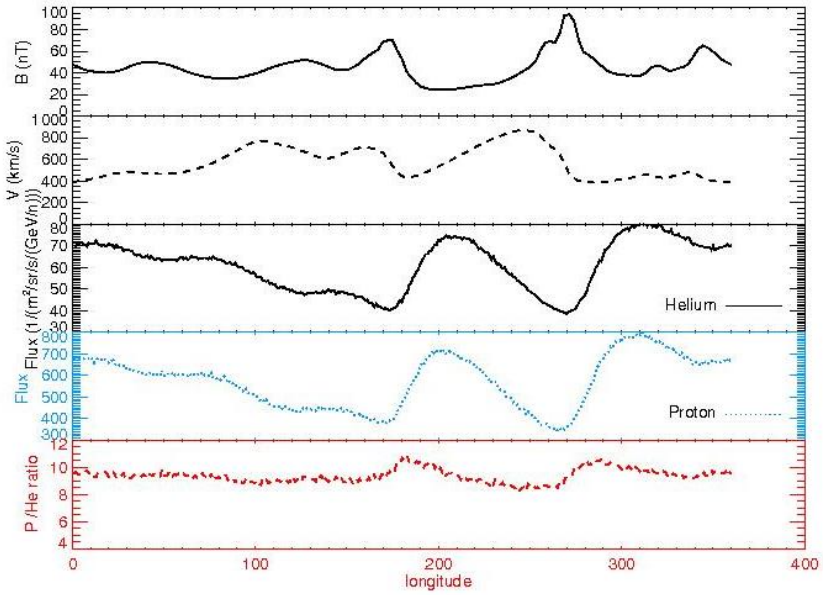
A Corotating Interaction Region (CIR) is formed when the fast solar wind catches the slow solar wind. It is known that the intensity of Galactic Cosmic Rays (GCRs) is modulated by CIRs, and usually, the GCR intensity is suppressed inside the CIR. However, previous studies were mainly confined to GCR protons. In this study, we have utilized a hybrid GCR transport model, which incorporates the Magnetohydrodynamic (MHD) simulated solar wind plasma background with a CIR structure. Additionally, adopting appropriate mass, charge and Local Interstellar Spectra, the hybrid transport model is applied to both GCR protons and Helium. It is found that (1) both proton and helium is modulated by the CIR so that their intensity is depressed; (2) however, the modulation level for protons and Helium is different, and interestingly, the ratio of the proton and helium flux also varies with longitude.




**The Simulated results for proton and total Helium longitude variation**