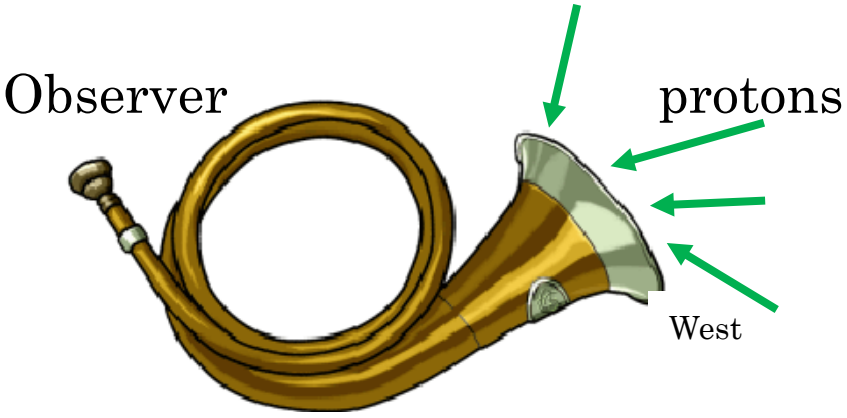
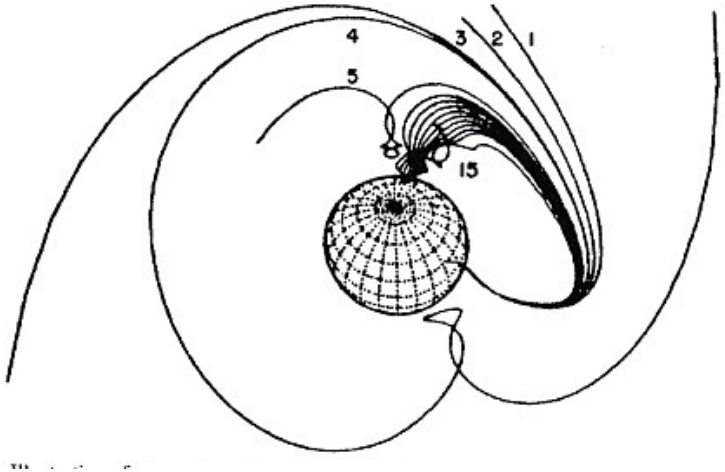
Executive Summary of paper icrc2021_1264

Muraki et al.

In association with a large solar flare on November 7th 2004, solar neutrons were detected by the neutron detector located at Chacaltaya (5,250m). However in association with this flare, strong proton beam was recorded by the solar neutron telescope located at Mt. Sierra Negra (4,600m). By the preliminary analysis the intensity is ~200 times intensive from the estimation of a simple geometrical acceptance model (like optical radiation = neutrons). There must be a focusing effect (horn effect) for protons. Then we could explain the excess of Mt. Sierra Negra by the arrival of Solar Neutron Decay Protons (SNDP).



Earth's magnetic field



By Smart, Shea and Flückiger (2000)