



Contribution ID: 47

Type: **Oral Presentation**

Solar modulation of Helium isotopes from minimum to maximum activity

Friday, 30 July 2021 11:45 (15 minutes)

The solar modulation of Helium isotopes (Helium-3 and Helium-4) is studied and compared to observations at the Earth. This is done from the period of minimum solar activity from 2006 to 2011, up to the period of solar maximum activity from 2012 to 2015. Computed spectra are compared to the precise measurements of Helium-3 and Helium-4 fluxes measured by the PAMELA and AMS-02 space missions between July 2006 and December 2015, spanning time frames that include the solar magnetic field reversal epoch. Insight gained from this comprehensive modeling, with a three-dimensional drift model, about the relative roles of the four main modulation processes over the mentioned period will be shown and discussed.

Apply to be considered for a student ; award (Yes / No)?

No

Level for award;(Hons, MSc, PhD, N/A)?

N/A

Primary author: NGOBENI, Donald (1. Centre for Space Research, North-West University, Potchefstroom, South Africa 2. School of Physical & Chemical Sciences, North-West University, Mmabatho, South Africa)

Co-authors: Prof. POTGIETER, Marius (Institute for Experimental & Applied Physics, Christian-Albrechts-University in Kiel, Germany); Dr ASLAM, O.P.M. (Centre for Space Research, North-West University, Potchefstroom, South Africa); Dr BISSCHOFF, Driaan (Centre for Space Research, North-West University, Potchefstroom, South Africa); Ms RAMOKGABA, Innocentia (School of Physical & Chemical Sciences, North-West University, Mmabatho, South Africa); Dr NDIITWANI, Dzivhuluwani (1. Centre for Space Research, North-West University, Potchefstroom, South Africa 2. School of Physical & Chemical Sciences, North-West University, Mmabatho, South Africa)

Presenter: NGOBENI, Donald (1. Centre for Space Research, North-West University, Potchefstroom, South Africa 2. School of Physical & Chemical Sciences, North-West University, Mmabatho, South Africa)

Session Classification: Space Science

Track Classification: Track D2 - Space Science