

Numerical Simulation of Cosmic Ray Protons Over Time Measured by AMS-02

Tuesday 25 April 2017 16:25 (25 minutes)

The AMS-02 experiment on board the International Space Station measured with unprecedented accuracy the time variation of the cosmic ray proton and helium flux between May 2011 and May 2016 in the rigidity range from 1 to 100 GV. A comprehensive 3D steady-state numerical model is used to solve the Parker's transport equation and to reproduce the monthly fluxes observed by AMS-02. The limitations of this approach in describing the heliosphere during the maximum of solar activity are discussed.

Primary author: CORTI, Claudio (University of Hawai'i at Manoa (US))

Co-authors: BINDI, Veronica (University of Hawai'i at Manoa (US)); CONSOLANDI, Cristina (University of Hawai'i at Manoa (US)); Mr LIGHT, Christopher (University of Hawaii at Manoa); Dr PALERMO, Matteo (University of Hawaii at Manoa); Dr POPKOW, Alexis (University of Hawaii at Manoa); WHITMAN, Kathryn (University of Hawai'i at Manoa (US))

Presenter: CORTI, Claudio (University of Hawai'i at Manoa (US))

Session Classification: Late Tuesday Afternoon