

A model for the behaviour of the energetic particles inside magnetic clouds

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The modulation effects of the solar ejecta over the solar energetic particle fluxes (0,5-100 MeV) provided by solar flares have recently been highlighted. Especially important is the behaviour of these fluxes inside MCs where, in spite of the low magnetic field intensities of these interplanetary structures (about 30 nT), a decrease in the population of the energetic particles is observed. In the present work it is shown a simple theoretical model we have developed to analyse the behaviour of those fluxes inside the magnetic clouds (MCs) using, as a starting point, our previous magnetic field model for MCs. In order to test the model we have used data from SOHO and ACE satellites.