

## **Proton energy spectra according to data from IMP-8**

I.V. Getselev, V.P. Okhlopkv, M.V. Podzolko, E. A. Chuchkov ( *D.V. Skobeltsyn Institute of Nuclear Physics, Moscow State University, Moscow, 1992, Russia* )

Energetic proton spectra measured by IMP-8 satellite in a time period from 1973 till 2001 have been considered. Integral proton fluences for various time periods from 3 months to 10 years have been calculated. It was found that proton fluences could be well fit by power function, approximation error was not larger than  $\sim 10\%$ . Energy spectra exponent variation interval decreases with the increase of the time interval. Thus for 1-year fluences it varies from  $-0.1$  to  $-1.55$  while for 10-year fluences variation interval is from  $-0.95$  to  $-1.3$ . The spectra exponent During the periods of solar magnetic field reversal the spectra becomes experiences clear 11-year variation. Also for the period of solar magnetic field reversal the spectra is harder than for same the periods before and after that.