



Dynamic evolution of proton pitch angle distributions due to wave-particle interactions during geomagnetic storms

Sergey V. Smolin

Siberian Federal University, Department of Physics, Krasnoyarsk, Russian Federation (smolin@krasu.ru)

The equation of pitch angle diffusion is offered, which also allows to model change of pitch angle distribution from time and due to wave-particle interactions. Two examples are presented.

The first example is evolution of pitch angle distribution of protons during a typical moderate magnetic storm. The second example is evolution of pitch angle distribution of protons during the 2 - 7 May 1998 storm.

The received results are compared among themselves and to results of other works.