Modeling of proton pitch angle distributions in the Earth's radiation belts

S. Smolin

Krasnoyarsk State Technical University, Kirensky Str., 26, 660074, Krasnoyarsk, Russian Federation (smolin@krasu.ru)

On the basis of numerical solution of the particle diffusion equation in the Earth's magnetosphere, characteristics of trapped proton pitch angle distributions in the Earth's radiation belts for $1 < L < 6.6$ and 1 keV $< E <$ 750 keV are calculated. The effect of the magnetospheric convection on the flux anisotropy is examined. A comparison between calculated proton pitch angle distributions and available experimental data is made.