**Inner magnetosphere field line curvature estimates. First results**

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An important mechanism for energetic electron losses in the outer radiation belts is the field line curvature scattering. A particle magnetic moment is not conserved in the areas where the gyroradii is comparable with field line curvature. This causes pitch angle chaotic transformations and a particle may reach loss cone. So to estimate the field line curvature in the equatorial regions of the outer magnetosphere in is an important task.

Based on CLUSTER magnetic field data we select the intervals when the pairs of spacecraft cross the neutral sheet (NS). To get the NS location and local coordinates we use TAG-14 model of NS. We test the two-dimensional approach using only two observation points and linear gradient estimates. The four Cluster spacecraft provide us three subsequent passes through NS so we can investigate the evolution of the field line curvature as well as apply some test of the method. We present the first results, discuss the method applicability and compare the observed curvature radius with relativistic electron gyroradii.