



Reconstruction of the Plasmasphere from IMAGE data using CT method

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The column density of the He⁺ particles along the viewing direction can be observed from the Extreme Ultraviolet (EUV) data of IMAGE satellite. In this paper, a three-dimension (3D) model is firstly established for the density distribution. The result of simulation the model reveals that the CT technique can be used to calculate the global density of the plasmasphere. Then, this inversion method is used to calculate the plasma density distribution from the Extreme Ultraviolet (EUV) data of IMAGE satellite. The performance of the result is also evaluated by comparison to previously plasmaspheric density model. This CT algorithm can be used to inversion the Moon based EUV images.