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Large Scale Flow Near a Reconnection Site at the Dayside Magnetopause: A 3D Analytical Model Coupled with Cluster Multi Spacecraft Data

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We combine a three-dimensional analytical model covering the large scale plasma flow in the vicinity of a reconnection site at the dayside magnetopause, with data from the Cluster spacecraft. During January 26, 2001 the Cluster satellite armada where skimming the magnetopause surface for a period of several hours, allowing us to investigate several magnetopause crossings during a period of roughly half an hour between 10:29-11:05 UT. The coupling between the analytical model and data from Cluster spacecraft 1, 3 and 4, results in estimates of the anomalous transport coefficients of kinematic viscosity and magnetic diffusivity together with the location and orientation of the X-line.