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Correlation between outer radiation belt, plasmapause and quasi-static electric fields

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We study the correlation between the outer radiation belt, plasmapause position and quasi-static electric fields. The plasmapause is believed to occur near the inner edge of the outer radiation belt while large electric fields in some occasion are found to limit the location of the outer edge of the outer radiation belt. In this study we study a number of events from the Polar and Cluster database and examine how well these assumptions are valid. We also investigate whether their validity appears at all MLT sectors and whether it depends on the level of geomagnetic activity.