

## Bifurcation of the nightside auroral oval toward the noon during southward IMF

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We examined the features of the bifurcation of the nightside auroral oval during southward IMF by using remote-sensing measurements made by TIMED/GUVI and in situ observation of the precipitating particles by DMSP spacecraft. Clear bifurcation from the nightside toward the noon sector is seen when IMF is very large and negative. The length of the bifurcated oval is estimated to be approximately 3000 km. We report statistical results on the location of the bifurcation point and the length of the bifurcated oval, including their relationship with IMF conditions.

Keywords: polarcap, aurora oval, particle precipitation, southward IMF