



## **Determination of plasmopause position with Automatic Whistler Detector and Analyzer system**

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The plasmopause location is a crucial parameter in the investigation and modeling of dynamic magnetosphere. As the existence of plasmopause was discovered by 'knee' whistlers, the obvious way to determine its position would be to use whistlers. However, until the recently developed Automatic Whistler Detector and Analyzer (AWDA) system, it was not feasible due to the required enormous human labour. AWDA systems located at higher ( $L^3$ ) or high ( $L^4$ ) magnetic latitude can automatically detect and process multiple-path whistler groups that were generated by a single lightning discharge and propagated along different field lines and/or knee whistlers propagated beyond the plasmopause. The result is a series of propagation L-value and the corresponding equatorial electron density. If the whistler group contains knee whistlers, the location of plasmopause can easily be determined from the obtained equatorial electron density - propagation L-value curve. However, in the absence of knee whistlers (that is frequently the case), only the minimum distance of plasmopause from Earth can only be determined. This estimation can further be refined by using multiple-station AWDA data.