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PEM031-P13

Room:Convention Hall

Time:May 26 14:00-16:30

Visualization model of the 3D electron density distribution and its application to remote sensing observations

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We have constructed a visualization model of the 3D electron density distribution in the polar ionosphere. This model is based on the empirical model of the auroral oval we have developed, and several established models regarding the precipitation energy/energy flux of the auroral particles, and the production rate, which is dependent on the altitude, have been utilized. Our visualization model shows that variable "islands" exist in the 3D distribution. We assume that the line of sight direction of the radar passes through the island, and discuss how the island can be detected by the assumed radar.

Keywords: ionospheric electron density, auroral particles, modeling, visualization