

ALGORITHM FOR DETERMINING AURORAL OVAL BOUNDARIES BASED ON VARIOUS MANIFESTATIONS OF AURORAL ACTIVITY

Yuri Pensikh, Vyacheslav Kapustin

*Institute of Solar-Terrestrial Physics SB RAS, Irkutsk, Russia,
pensikh@iszf.irk.ru*

An algorithm has been developed for determining the polar and equatorial boundaries of the auroral oval and the line of maximum values. The operation of the algorithm on precipitation of auroral particles (OVATION Prime model), auroras (IMAGE satellite data), and conductivity of ionospheric plasma in the auroral zone (Spiro conductivity model) is shown. The algorithm can be adapted to other auroral activity data.