

**PC INDEX ANALYSES AND ITS RELATION TO AURORAL ELECTROJET INDICES
ON BASE OF THE HIGH LATITUDE GEOMAGNETIC VARIATION MODEL**

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PC index was suggested by its authors as a quantitative characteristic of the transpolar current. The relations of magnetic field values on polar cap station (Thule) with the solar wind parameters are used for that purpose. As a matter of fact the inverse problem is under consideration: the combination of solar wind parameters (V - B_z - $\sin\theta B_x/B_y$) are being found on base of geomagnetic data.

IZMIRAN electromagnetic model (IZMEM) is based on the geomagnetic field - solar wind parameters correlation analyses. So it lets to calculate components of the magnetic field perturbation in arbitrary point of the polar cap for any IMF conditions. IZMEM lets to calculate the transpolar current as well. In such a way the PC index quality could be evaluated. Moreover the modeling lets to improve index taking into account additional magnetic observatories data and to exam the PC index and AE indices interrelations. [This paper has been supported by the Russian Foundation for Fundamental research, grant 99-05-64296].