



New unifying procedure for PC index calculations.

P. Stauning

Copenhagen, Denmark (pst@dmi.dk)

The Polar Cap (PC) index is a controversial topic within the IAGA scientific community. Since 1997 discussions of the validity of the index to be endorsed as an official IAGA index have ensued. Currently, there are now the three separate PC index versions constructed from the different procedures used at the three institutes: the Arctic and Antarctic Research Institute (AARI), the Danish Meteorological Institute (DMI), and the Danish National Space Institute (DTU Space). It is demonstrated in this presentation, that two consistent unifying procedures can be built from the best elements of the three different versions. One procedure uses a set of coefficients aimed at the calculation of final PC index values to be accepted by IAGA. The other procedure uses coefficients aimed at on-line real-time production of preliminary PC index values for Space Weather monitoring applications. For each of the two cases the same procedure is used for the northern (PCN) and the southern (PCS) polar cap indices, and the derived PCN and PCS coefficients are similar.