



Improvements on foF1 estimation at polar regions

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The analysis of a sample of polar ionograms reveals that the DuCharme and Petrie empirical formula often fails in the foF1 estimation at polar regions. A study of the discrepancies between modeled and observed foF1 values is presented, using a data set of Antarctic ionograms from different stations. Such discrepancies have been quantitatively evaluated. Based on this study a correction to the DuCharme and Petrie formula is proposed. This correction is performed to be implemented in an improved version of Autoscala software for a particular ionospheric station, in the frame of AUSPICIO (Automatic Interpretation of Polar Ionograms and Cooperative Ionospheric Observations) project.