Ionospheric critical frequency prediction service based on digisonde measurements at Dourbes

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Presented is an operational service for high-resolution monitoring and prediction of the ionospheric F-layer critical frequency, $f_{0}F2$. The service is based on the recently developed monthly median model of $f_{0}F2$ using the extensive database of the RMI Geophysical Centre in Dourbes (50.1°N, 4.6°E). The model utilizes data from several solar cycles and uses the solar radio flux index ($F10.7$) as a solar activity measure. Provided is a preliminary evaluation of the service, including the advantages, uncertainties and shortcomings. Future applications and possible model improvements are also discussed.