The Simplified Ionospheric Regional Model (SIRM): a software code now in open access

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A complete review of the Simplified Ionospheric Regional Model (SIRM) for HF ionospheric prediction, developed as a prototype in the early 90s and improved several times in the following years, has been recently submitted for publication. The SIRM model has been largely and frequently employed in the framework of different international research projects as the climatological reference to output foF2 and $M(3000)$F2 monthly median predictions, and successfully used also as a nowcasting model for those ionospheric characteristics, and as an intermediate step of complex procedures for a quasi real-time three-dimensional representation of the ionospheric electron density. Hence a public need for its software code in open access.

Despite of the complexity of its mathematical treatment, a short software code synthesizing the performances of the method will be given so that it may be used and applied as a small subroutine for different purposes in ionospheric research and application. The flowchart summarizing the main steps characterizing SIRM as well as a web link through which it is possible to download the SIRM Fortran code together with the numerical coefficients valid for the European region will be shown.

References

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