A study of the shortwave schemes in the Weather Research and Forecasting model

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Appendix A

Contributions to the scientific community

This thesis has been developed with a clear determination to participate in the scientific community as an important part of the learning process to become a good researcher. In general, many of these contributions have been cited in the previous chapters. However, as the main purpose of a thesis is to review the work developed by the PhD candidate, we think that it is a good idea to dedicate a small section with a quick overview of the contributions.

The publications are indicated in the following points:

• 3 peer reviewed papers:

• 3 oral presentations:
  – Montornès, A., Codina, B., Zack, J. W.: Implementation of the Bessel’s method for solar eclipses prediction within the WRF-ARW model, 15\textsuperscript{th} EMS Annual Meeting and 12\textsuperscript{th} European Conference on Applications of Meteorology, Sofia (Bulgaria), 2015.
  – Montornès, A., Codina, B., Zack, J. W.: An analysis of sensitivity of WRF short-wave radiation schemes in the forecast of the surface downward flux using idealized 1-D atmospheric profile, 13\textsuperscript{th} EMS Annual Meeting and 11\textsuperscript{th} European Conference on Applications of Meteorology, Reading (United Kingdom), 2013.
• 2 posters:

• 2 WRF’s code improvements:
  – WRF v3.7: Diffused, direct and direct normal irradiance calculation was extended to CAM and FLG radiation options.
  – WRF–eclipse: Under conversations with the WRF Physics Committe at the moment of writing this thesis.