Hydrol. Earth Syst. Sci. Discuss., 9, C1484–C1485, 2012
www.hydrol-earth-syst-sci-discuss.net/9/C1484/2012/

Hydrology and Earth System Sciences Discussions

Interactive comment on "Parameterization of atmospheric long-wave emissivity in a mountainous site for all sky conditions" *by* J. Herrero and M. J. Polo

J. Herrero and M. J. Polo

herrero@ugr.es

Received and published: 15 May 2012

We acknowledge the comments made by Referee 2, which have helped us to address certain important issues in the work and to improve significantly its quality. Following this, we have incorporated some significant changes into the work.

We agree with the referee about the limitations that arise because of the use of only one site for calibration and validation. In fact, local applicability and, hence, scope, are the most common problems that atmospheric equations and parameterizations have to face.

Full Screen / Esc

Printer-friendly Version

Interactive Discussion

Discussion Paper

However, despite this, we presented our study due to the singularities of the area, Sierra Nevada, the most southern alpine region in Europe, with semiarid and subtropical environments in the nearby surroundings. It is one of the Spanish National Parks, and it houses a global change observatory because of its particular conditions. In fact, the Refugio Poqueira station, located at 2500 m, is the first permanent scientific station in Sierra Nevada. The so far 7-yr dataset made up of continuous measurements of downward long-wave radiation in such a special and delicate environment are of great interest to researchers, and also to managers of the Park and the Observatory. We apologize for not having addressed this point, and we have thus included some comments in the revised version.

Specific comments are individually answered in the supplement attached. The revised version of the article is included in an Author Comment (AC C1481: 'Revised version of the manuscript', Javier Herrero, 15 May 2012).

Please also note the supplement to this comment:
http://www.hydrol-earth-syst-sci-discuss.net/9/C1484/2012/hessd-9-C1484-2012-supplement.pdf

---

Interactive comment on Hydrol. Earth Syst. Sci. Discuss., 9, 3789, 2012.