

Interactive comment on “Weather model verification using Sodankylä mast measurements” by M. Kangas et al.

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Thank you for your valuable comments and suggestions. Please find our response below.

Q: It is worth pointing out that such model problems are not limited to NWP. Also climate models have similar issues, particularly at latitudes where the climate signals are strongest (Arctic amplification).

A: Added reference to climate model problems in the Introduction: "Various atmosphere to surface coupling issues are also problematic in climate models, especially at Arctic latitudes."

Q: I would have welcomed a deeper analysis of model problems on the basis of ob-
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servations, but I guess it is beyond the scope of the current paper. ... I look forward to seeing model studies based on these observations.

A: A deeper analysis was, as said, beyond the scope of this paper, but deserves attention in the future. Future comparison studies on e.g. the heat fluxes are being planned. A number of studies with Sodankylä measurements have already been performed within the WINTEX programme mentioned in the article (e.g. Kangas et al., 2001 and Batchvarova et al., 2001). One of the main aims of this article was to show and point out the possibilities that the measurements performed in the FMI Arctic Centre in Sodankylä offer for scientific studies.

Please also note the supplement to this comment:
<http://www.geosci-instrum-method-data-syst-discuss.net/5/C270/2016/gid-5-C270-2016-supplement.pdf>

Interactive comment on Geosci. Instrum. Method. Data Syst. Discuss., 5, 577, 2015.

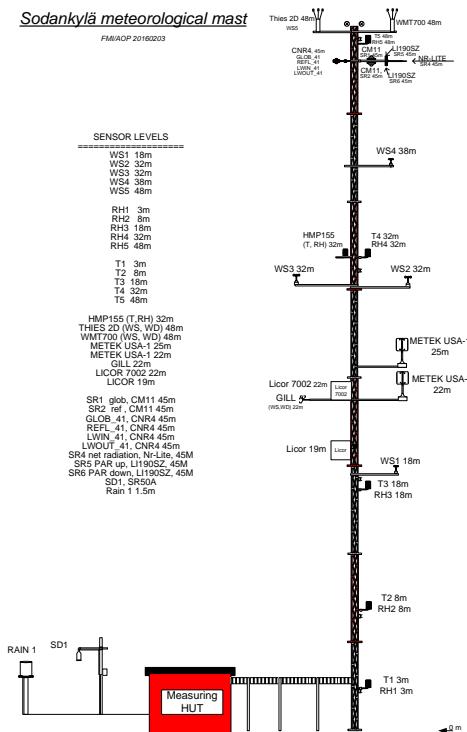


Fig. 1.

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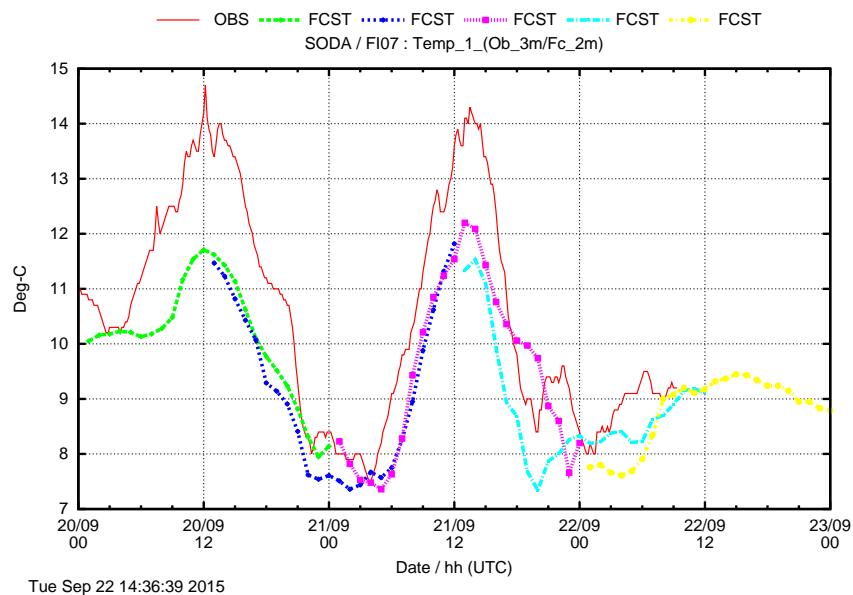


Fig. 2.

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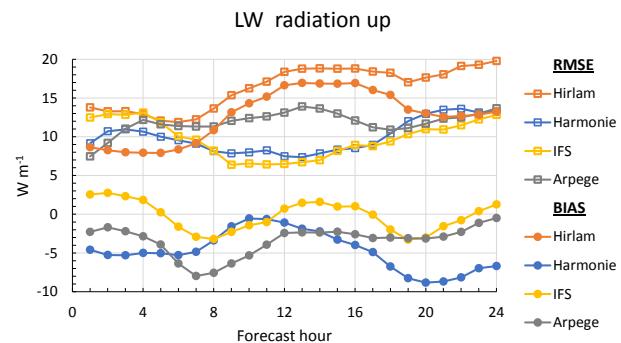
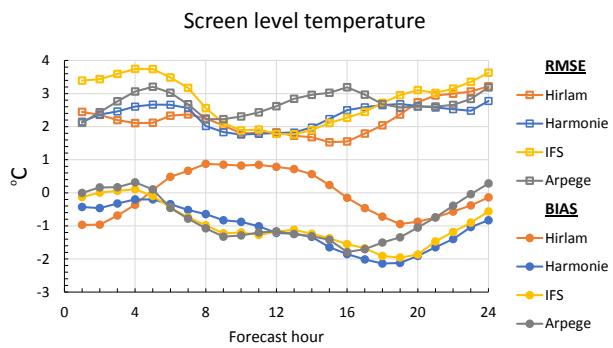


Fig. 3.

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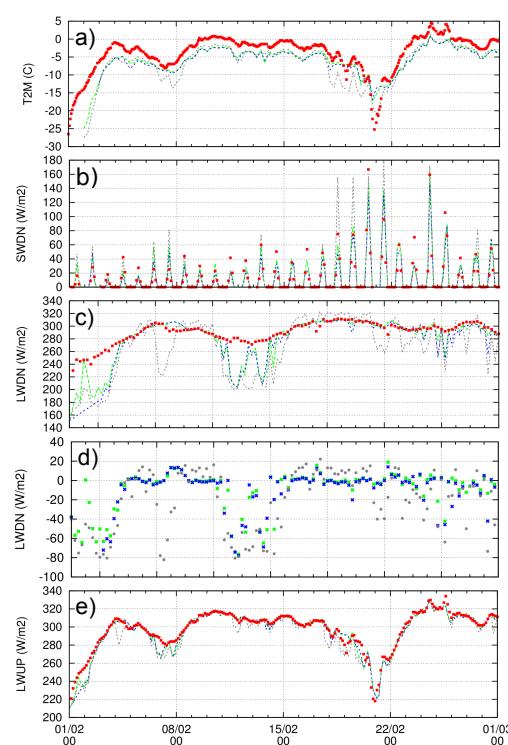


Fig. 4.

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