

# ***Interactive comment on “Air temperature thresholds to evaluate snow melting at the surface of Alpine glaciers by T-index models: the case study of Forni Glacier (Italy)” by A. Senese et al.***

## **Anonymous Referee #1**

Received and published: 14 April 2014

The paper addresses an interesting issue in the field of glaciology and hydrology, i.e. the use of degree day approach based upon a proper temperature threshold.

The methods, and results of the paper are sound, and provide an interesting subject for scientist working in this area of investigation.

The adopted data set is considerably long and interesting, especially given the difficulties of working within high altitude cryospheric environment.

I suggest that the paper can be published after minor revision, mainly related to some lack in English use.

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Also, some sentences are awkward, border line unintelligible, and would need rephrasing

I have provided extensive correction for English and other issues in the attached pdf.

Also, the conclusions part is too long, and mostly a repetition of discussion.

Therefore, I suggest that the authors provide shorter conclusions, and describe therein only essential outcomes, without too many repetitions, and also provide clues as to how their results may be of use to the large audience of scientists in the area of glaciology and hydrology.

Further, it is widely known that degree day is adopted as a first approximation index for ice melting, also upon debris covered glaciers.

I wonder whether the authors may provide their feelings about whether their findings may be representative/useful also in such cases.

Please also note the supplement to this comment:

<http://www.the-cryosphere-discuss.net/8/C452/2014/tcd-8-C452-2014-supplement.pdf>

Interactive comment on The Cryosphere Discuss., 8, 1563, 2014.

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