

Response to Anonymous Referee #1

The study assesses the practicability of applying thermal infrared (TIR) imagery for mapping surface saturation dynamics. The experimental work was based on an 18-month field campaign, where the authors tried to try to outline under which conditions the method works best and what problems may occur.

General comments

I found the topic very interesting and I really enjoyed reading the paper. Although I do not feel qualified to judge the entire process of acquisition and post-processing of the images since it does not fall within my field of expertise (thus I remind the editor decision to the comments of another more expert reviewer) I see a very high potential for this technique especially its application to larger scales.

We wish to thank the reviewer for the positive feedback and we are pleased that the reviewer is interested in the technique and enjoyed reading the manuscript.

For this reason, my main comment/suggestion is to put an effort to expand the description of the potential transfer of this technique to larger spatial scales (for instance by using air-born space-born instruments) and the associated difficulties/simplifications/implications this transfer entails.

We thank the reviewer for pointing out this. We will put more emphasis on the potential scale transfer and related challenges in the discussion section.

Technical comment

The paper is really well written and clear. It is also well structure and organized so I do not have specific comments except the suggestions of inclusion of scale bars in the pictures that help the reader to understand the spatial dimension of the figures otherwise too difficult.

The images are taken with a low angle and the images are thus spatially distorted. This means that it won't be possible to include scale bars that are valid for all of the image. In order to facilitate the feeling for the spatial dimension we will indicate the length of a distinct stream section within the images instead.

Based on that my suggestion is the acceptance of the paper after minor revisions.