

Technical corrections

p. 1, l. 23: exerts a strong impact -> exerts a strong influence OR has a strong impact

The wording was changed to "has a strong impact"

p. 2, l. 2: and almost doubled compared to the rest of the globe -> and was almost twice as strong as the global average

The wording was changed according to the editor's comment

p. 2, l. 20: and THE active layer

The wording was changed according to the editor's comment

p. 5, l. 5: "The left side of the equation represents the system's gain of energy and the right-hand side represents the losses of energy." This is not always so? For instance, R_{net} is energy loss during the polar night. If you mean this for period average, then please state so. Also please make clear how the signs of the SEB components are defined.

The paragraph (p. 4, l. 28 – p. 5, l. 3) was updated with information on the signs of the SEB components.

p. 6, l. 11: equals to -> equals (?)

The wording was changed to "equals 1.26"

p. 6, 3.1: Obviously these slopes are significantly smaller than 1. State that this will be discussed in section 4.

The following sentence was added to the manuscript: "Possible reasons for the observed energy imbalance at both sites are discussed in section 4.1."

p. 7, l. 14: "The average air temperature, which mainly controls the downwelling longwave radiation..." this is only partly so; emissivity (cloudiness, humidity) also is important. See also next remark.

The sentence was changed to "The average air temperature was -19.2°C and -15.2°C for the two consecutive polar winter periods and the snow surface temperature was -24.1°C and -19.2°C , respectively."

p. 7, l. 15/16: " the snow surface temperature together with cloudiness". There appears to be a mashup of information here, please check.

The sentence was changed to "The average air temperature was -19.2°C and -15.2°C for the two consecutive polar winter periods and the snow surface temperature was -24.1°C and -19.2°C , respectively."

p.7, l. 21: mainly driven due to -> mainly driven by

The wording was changed according to the editor's comment.