

Response to reviews

General comments

We thank all reviewers for their recommendations.

We notice a small error in legend of Fig. 1: "NOAA-CDR" was changed into "GlobSnow".

Anonymous Referee #3

1) I would encourage the authors to replace "observations" by "analyses, or re-analyses" in caption of Fig 1. ERA-5 land, for example, does not incorporate snow observations, and is a pure off-line model run. This applies also to L 384

Caption of Fig. 1 was modified as suggested L1015-1020.

The text at L383-384 was modified as suggested:

L383-384: To assess the main patterns of simulated year-to-year snow cover variability, we first investigate analyses or reanalyses, with separate EOFs (north of 30°N)

2) caption of Fig 5 (a) : snow mass, not snow man.

Done L1048.

3) The Abstract states that "with more extended snow over western Eurasia, is found to precede by one month an atmospheric circulation pattern similar to a negative Arctic Oscillation (AO)". Yes, L 689: "Both models and observations show that January eastern European snow cover anomalies are linked to AO-like anomalies one month later". Wouldn't it be better to use the same geographical characterisation (e.g. Western Eurasia) in both ? Please check.

The text L689 was modified as recommended.

L688-689: " Both models and observations show that January Western Eurasia snow cover anomalies are linked to AO-like anomalies one month later."