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Natural Hazards and Earth System Sciences
Discussions

Interactive comment on "Impact of asymmetric uncertainties in ice sheet dynamics on regional sea level projections" *by* Renske de Winter et al.

Renske de Winter et al.

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Dear Roelof Rietbroek,

Thank you for your comments. Long term changes in the terrestrial water cycle are included in the global circulation models (GCMs), which we use for our sea level change (SLC) projections.

In addition, the long term effect of groundwater extraction is included in our projections, based on Wada et al. (2012). This includes the gravitational component that results in a sea level fall near locations where the groundwater is depleted (see Slangen et al. (2014), figure 1f)

The scope of this manuscript was on the effect of asymmetrical distributions on dy-

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namic ice sheet mass loss. Other contributions are considered to be Gaussian distributed. However, the Seawise framework presented in the paper can also be used to analyse the effect of uncertainty of the hydrological cycle (or a large internal variability) on SLC.

Kind regards, Renske de Winter Roderik van de Wal Aimée Slangen

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