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TCD

Interactive comment

## Interactive comment on "Brief communication: A submarine wall protecting the Amundsen Sea intensifies melting of neighboring ice shelves" by Özgür Gürses et al.

## Özgür Gürses et al.

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Thank you very much for your encouraging comments and Thanks for indicating that this could be misunderstood. We have clarified this point.

"The onshore bed properties of the western eastern Marie Byrd Land, where Pine Island and Thwaites Glaciers are located, are most likely vulnerable to the Marine Ice Sheet Instability. Numerous modelling studies show a relic ice cap in the western Marie Byrd Land on the elevated bed rock topography even after the part of the West Antarctic Ice Sheet (WAIS) has collapsed (e.g. DeConto and Pollard, 2016; Feldmann and Levermann, 2015; Golledge et al., 2015; Winkelmann et al., 2015). Hence the



Discussion paper



western Marie Byrd Land is probably more favorable for a stable situation."

A detailed point by point reply is given in the attached pdf file.

Thanks for your engagement on behalf of all authors,

Christian Rodehacke

Please also note the supplement to this comment: https://www.the-cryosphere-discuss.net/tc-2019-32/tc-2019-32-AC1-supplement.pdf

Interactive comment on The Cryosphere Discuss., https://doi.org/10.5194/tc-2019-32, 2019.

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