

Interactive comment on “Getz Ice Shelf melt enhanced by freshwater discharge from beneath the West Antarctic Ice Sheet” by Wei Wei et al.

Anonymous Referee #1

Received and published: 18 August 2019

The authors showed the results of bathymetry under Getz with ice shelf draft. They also confirm the importance of subglacial discharge for controlling basal melt rate. Authors present exciting findings with a few minor corrections needed before publication.

Minor comment

Why ice shelf draft is not shown? I would like to see ice shelf draft plotted in Figure 2 as well. I believe the additional discussion on the difference between previous and new dataset would be great.

Other comments Line 110: Is this anomaly? Authors should phrase this better as in the caption of Figure 3.

Line 127-132: Authors mention that they use the least square method to infer 3.8m /yr

/K. What is this value? It would be good if authors can clarify which value they try to calculate. It would be good to add an equation in the text and specify.

The caption of Figure 2: I believe you do not mark only 500 m. What is the range?

Line 154 and some other lines: Authors can not say this is Meltrate with no discharge. This is confusing. What authors did is to remove the effect of ocean temperature.

Acknowledgment: I believe authors should mention where these datasets can be downloaded. Raw data and bathymetry data.

Interactive comment on The Cryosphere Discuss., <https://doi.org/10.5194/tc-2019-170>, 2019.

Printer-friendly version

Discussion paper

