

Interactive comment on "From Heinrich Events to cyclic ice streaming: the grow-and-surge instability in the Parallel Ice Sheet Model" by Johannes Feldmann and Anders Levermann

Anonymous Referee #1

Received and published: 21 November 2016

I provide a very cursory review because on initial quick skimming, it is clear that the manuscript is well constructed and that the scientific methodology supports well the conclusions drawn. The paper documents further an important form of ice flow variability that may have a bearing on how ice-flow developments in Antarctica are viewed in the future. (It would be interesting, for example, to address what is "really" the situation with Thwaites Glacier—a topic that is often linked with immediate effects of climate change. Attributing changes at Thwaites to just the developments of the last decade or 2 would bring one to question whether there were alternative explanations, e.g., is the outlet glacier subject to oscillations of the type shown in this manuscript.)

Interactive comment on The Cryosphere Discuss., doi:10.5194/tc-2016-235, 2016.