Supplementary figures for response to reviewer #2 concerning the manuscript "Geometric controls of Tidewater Glacier Dynamics" by Frank et al., (2021), TCD

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July 2021



Figure S1: Grounding line position over time for different fjord geometries and magnitudes (for color code refer to Fig. 2 in the manuscript). From top to bottom: linear-fjord reference run, embayments, depressions, bottlenecks, bumps



Figure S2: Relationship between velocity at the grounding line and the wetted area S for all geometries tested. For color code, please refer to Fig. 6 in the manuscript.



Figure S3: Grounding line discharge over time for different fjord geometries and perturbation magnitudes (small, medium, large). For color codes, see Fig. 2 in the manuscript. From top to bottom: linear reference fjord, embayments, depressions, bottlenecks, bumps. Note that simulations are stopped when a glacier has retreated to x = 30km; steady-state values are hence not obtained for all geometries at the end of the simulations.