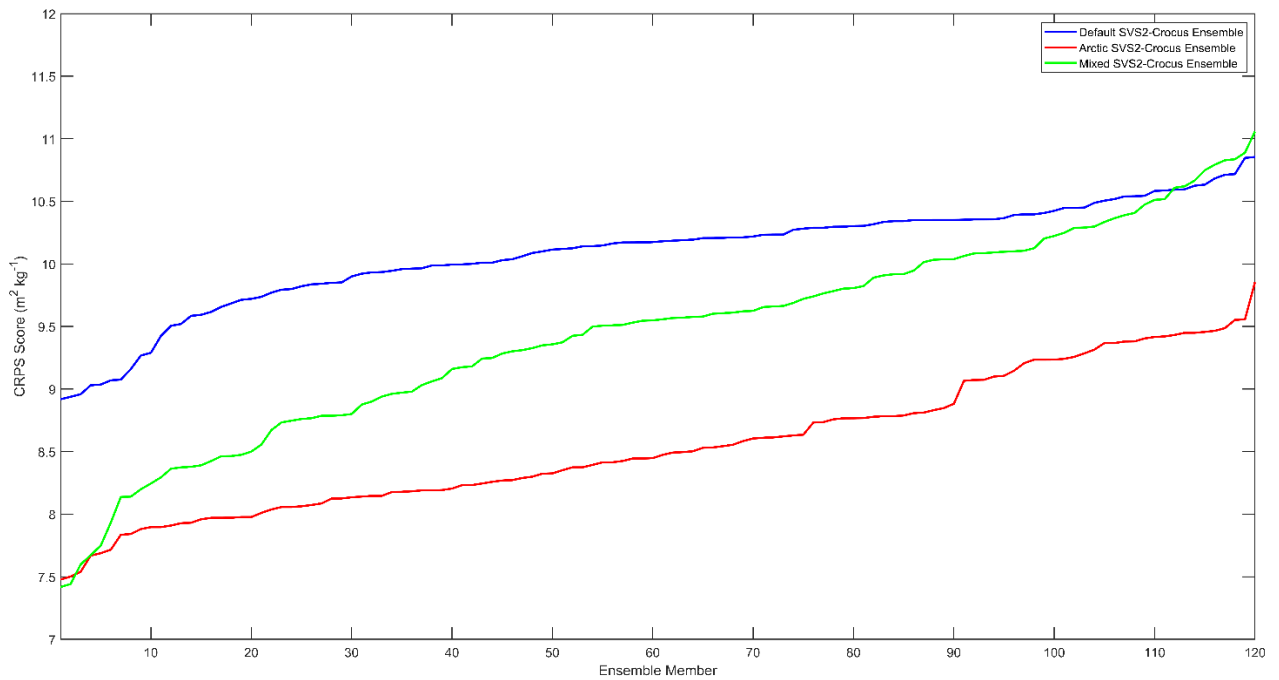
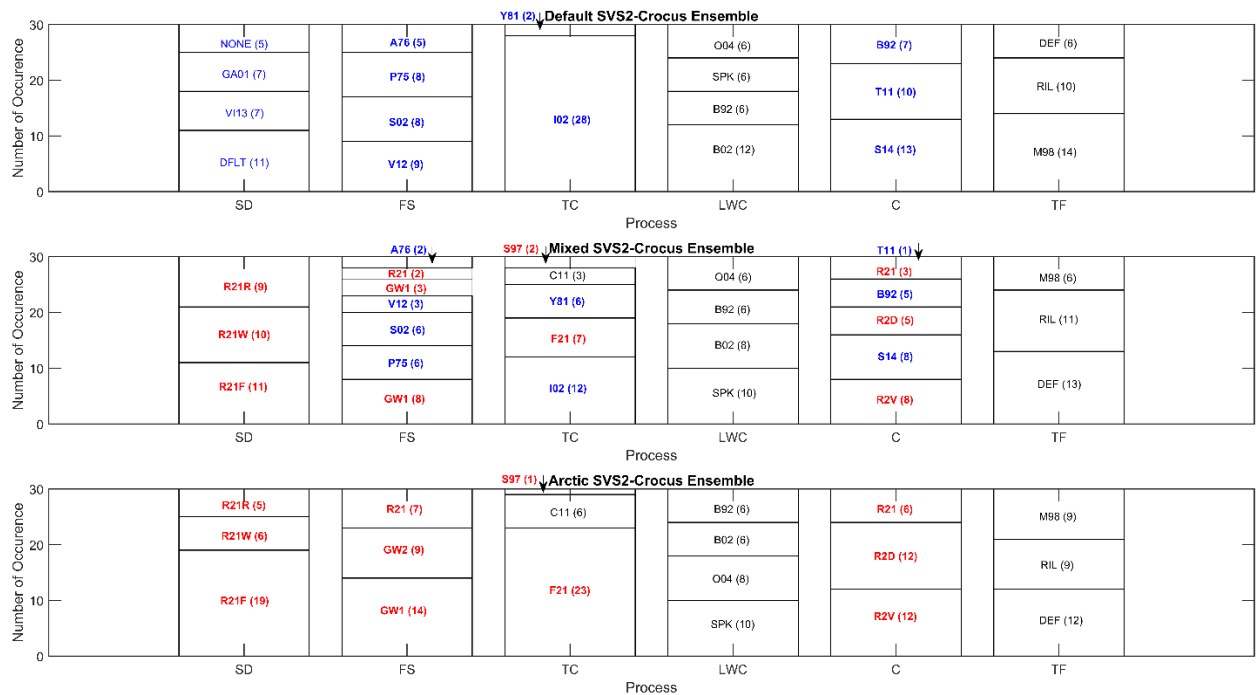
Supplementary Material (S1)

S1: Comparison of CRPS scores for all 120 members of the default, Arctic and mixed ensembles of SVS2-Crocus for the simulation of SSA ($m^2 kg^{-1}$) averaged over the whole snowpack in March 2018, March 2019, March 2022 and March 2023.

S2: Number of occurrences of each parameterisation in the top 30 members with the lowest CRPS scores for simulation of SSA by default, mixed and Arctic SVS2-Crocus. Blue indicates members of the default ensemble; red indicates members of the Arctic ensemble and black indicates members of both. Numbers in brackets represent number of occurrence. SD: Snowdrift, FS: Falling Snow, TC: Thermal Conductivity, LWC: Liquid Water Content, C: Compaction, TF: Turbulent Flux.