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*Supplement of*

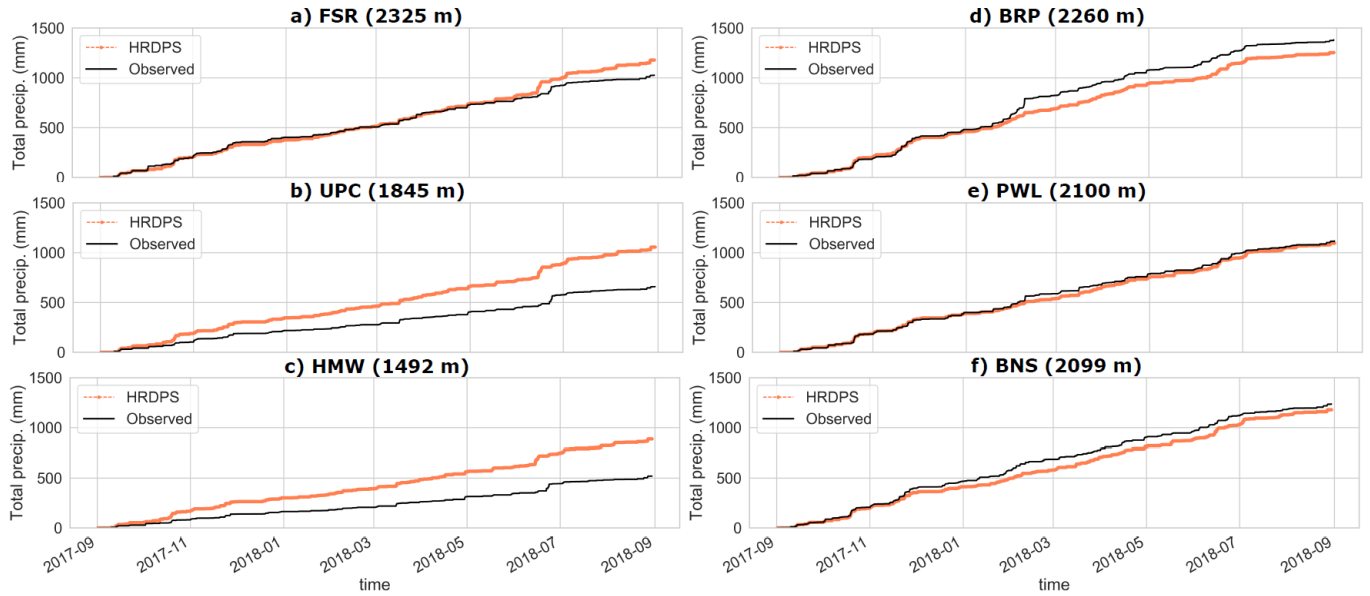
## **Multi-scale snowdrift-permitting modelling of mountain snowpack**

**Vincent Vionnet et al.**

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## 1. Evaluation of precipitation



5 **Figure S1: Comparison of observed (black lines) and HRDPS (orange lines) cumulated precipitation (solid + liquid) from 1<sup>st</sup> September 2017 to 31<sup>st</sup> August 2018 for six stations located in the Kananaskis domain. The location of the stations is shown on Fig. 1 in the main manuscript.**

## 2. Elevation-dependency of snow persistence

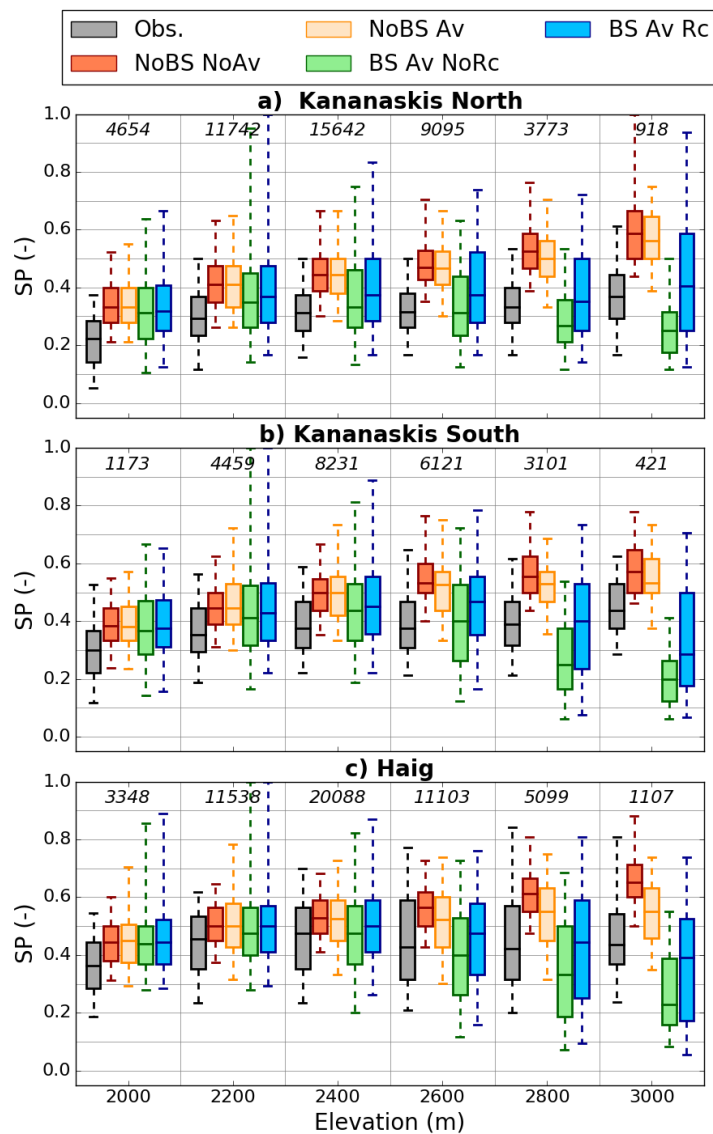


Figure S2: Boxplots showing the distributions of observed and simulated snow persistence (SP) index per 200-m elevation bands for three sub-regions. The location of these sub-regions is shown on Fig. 1b. Results of four CHM experiments are shown. The numbers in italic indicate the number of grid points within each elevation band. The whiskers show the 5<sup>th</sup> and 95<sup>th</sup> percentiles and outliers are not plotted.