The reviewer Massimiliano Zappa makes a very important comment concerning the terminology used in this paper. I fully agree that a distinction between "runoff process types" and the origine of the water actually causing the occurence of these processes is of prime importance, in particular to avoid any misleading association of one of the water sources (snowmelt, glacier melt, rainfall) with a certain runoff generation process. This also sheds a new light on the parameter identification process: the parameters can be grouped into the ones that influence the water input generation and the ones that encode the runoff processes.

We agree with the idea that it is necessary to distinct the "runoff process types" between "water source that causing the occurrence of the processes". In our study, hydrograph is separated based on water source for runoff generation which includes snowmelt, glacier melt and storm-rainfall. Rainfall runoff in the wet period and groundwater baseflow out of the wet period are both belong to the storm-rainfall type. On the other hand, the model parameters are grouped by both water input generation mechanism (snowmelt and glacier melt) and runoff processes (groundwater baseflow and storm-rainfall directly runoff).Each parameter group is related to a hydrograph partition and be calibrated in a step-wise way.