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【209】Towards the nesting of a glacier mass balance algorithm in a regional climate model

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With increasing resolution of regional climate models (RCMs), glaciers may now cover substantial portions of climate model grid cells. This study thus aims at explicitly resolving glaciers in RCMs.
A methodology based on the mosaic approach has been developed to include the heterogeneity of glaciers surface characteristics in glaciers mass balance simulations and surface energy fluxes computation.
Validation of the mosaic approach was performed at 5 study sites in the Rocky Mountains. The atmospheric data to drive the model were provided by the fifth generation of the Canadian RCM.
After a calibration procedure, simulated and measured mass balances correlated well. Biases in precipitation were the main source of error.

Authors: Ms PERROUD, Marjorie (University of Geneva); Mr FASEL, Marc (University of Geneva); Mr MARSHALL, Shawn (University of Calgary); Ms WINGER, Katja (UQAM)

Presenter: Ms PERROUD, Marjorie (University of Geneva)

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