

## ***Interactive comment on “Future runoff regime changes and their time of emergence for 93 catchments in Switzerland” by Regula Muelchi et al.***

**David C. Finger**

[fingerd@gmx.net](mailto:fingerd@gmx.net)

Received and published: 27 December 2020

Nice work. However, I would recommend looking at the following publication (Finger et al. 2012): <https://agupubs.onlinelibrary.wiley.com/doi/full/10.1029/2011WR010733> This publication is, to my knowledge, the first publication coupling glacier retreat, satellite snow cover data and distributed physically-based hydrological modelling and is accordingly an important contribution to "Future runoff regime changes". The study outlines how the retreat of glaciers will drastically decrease water availability in summer, how warmer temperatures will lead to enhances snowmelt in spring and how fall storms will lead to high water events in fall. The study also shows that water infrastruc-

C1

ture is not adapted for these new conditions.

You might also read the NZZ article about the study (in German): <https://www.nzz.ch/wasserkraft-in-den-bergen-wird-massiv-abnehmen-1.16334488>

And another article was written together with the hydropower operators: [https://www.researchgate.net/publication/258518824\\_Weitreichende\\_Auswirkungen\\_des\\_Kl](https://www.researchgate.net/publication/258518824_Weitreichende_Auswirkungen_des_Kl)

Sincerely yours, David C Finger

---

Interactive comment on Hydrol. Earth Syst. Sci. Discuss., <https://doi.org/10.5194/hess-2020-516>, 2020.