INSIGHTS INTO PRECIPITATION OROGRAPHIC ENHANCEMENT FROM SNOW-COURSE DATA AND THEIR VALUE FOR IMPROVED HYDROLOGIC PREDICTIONS

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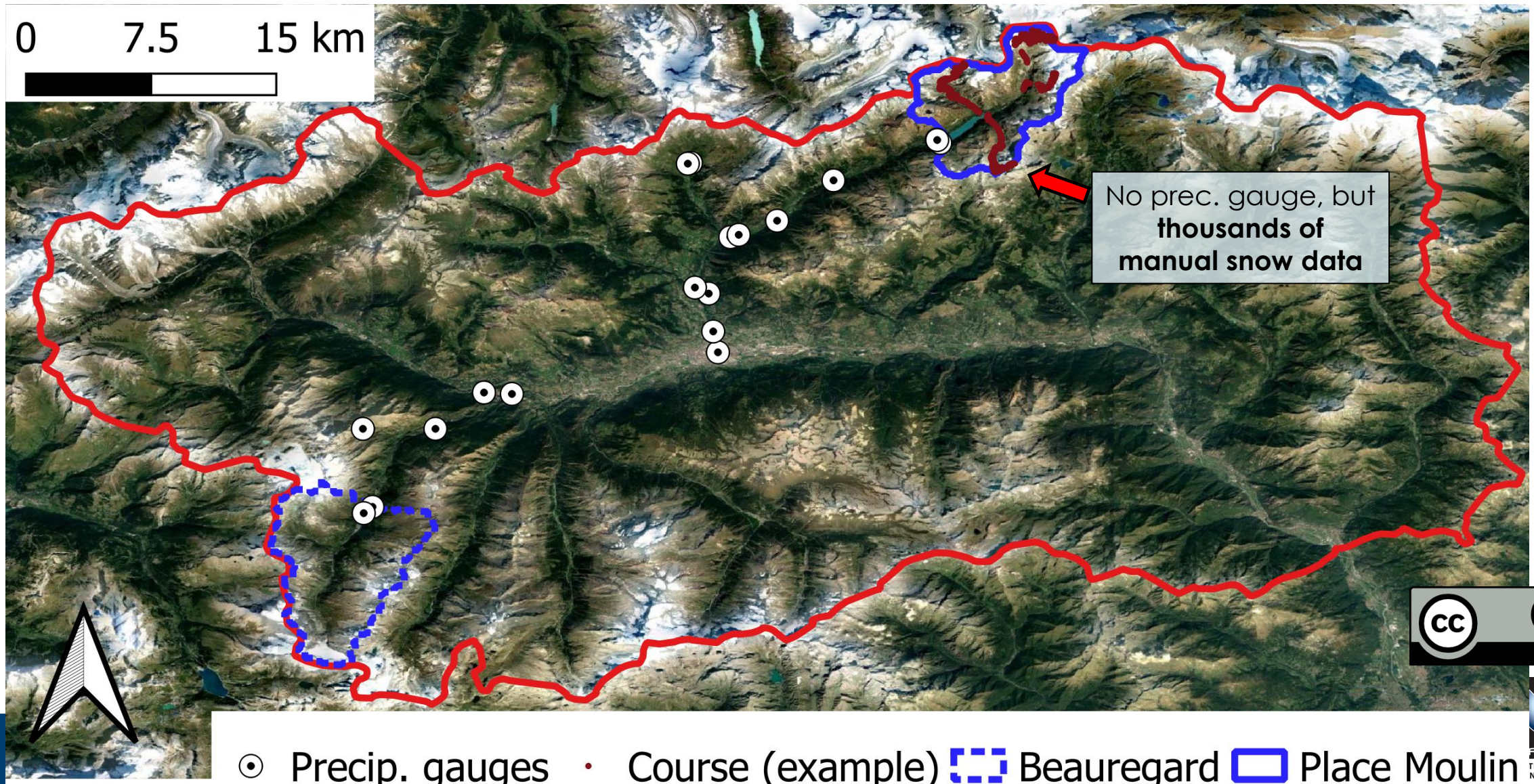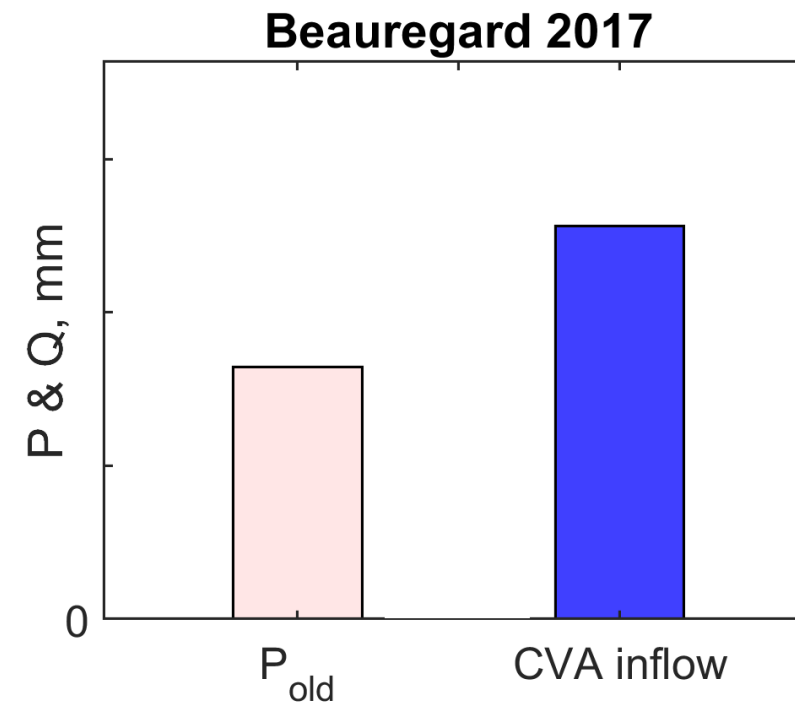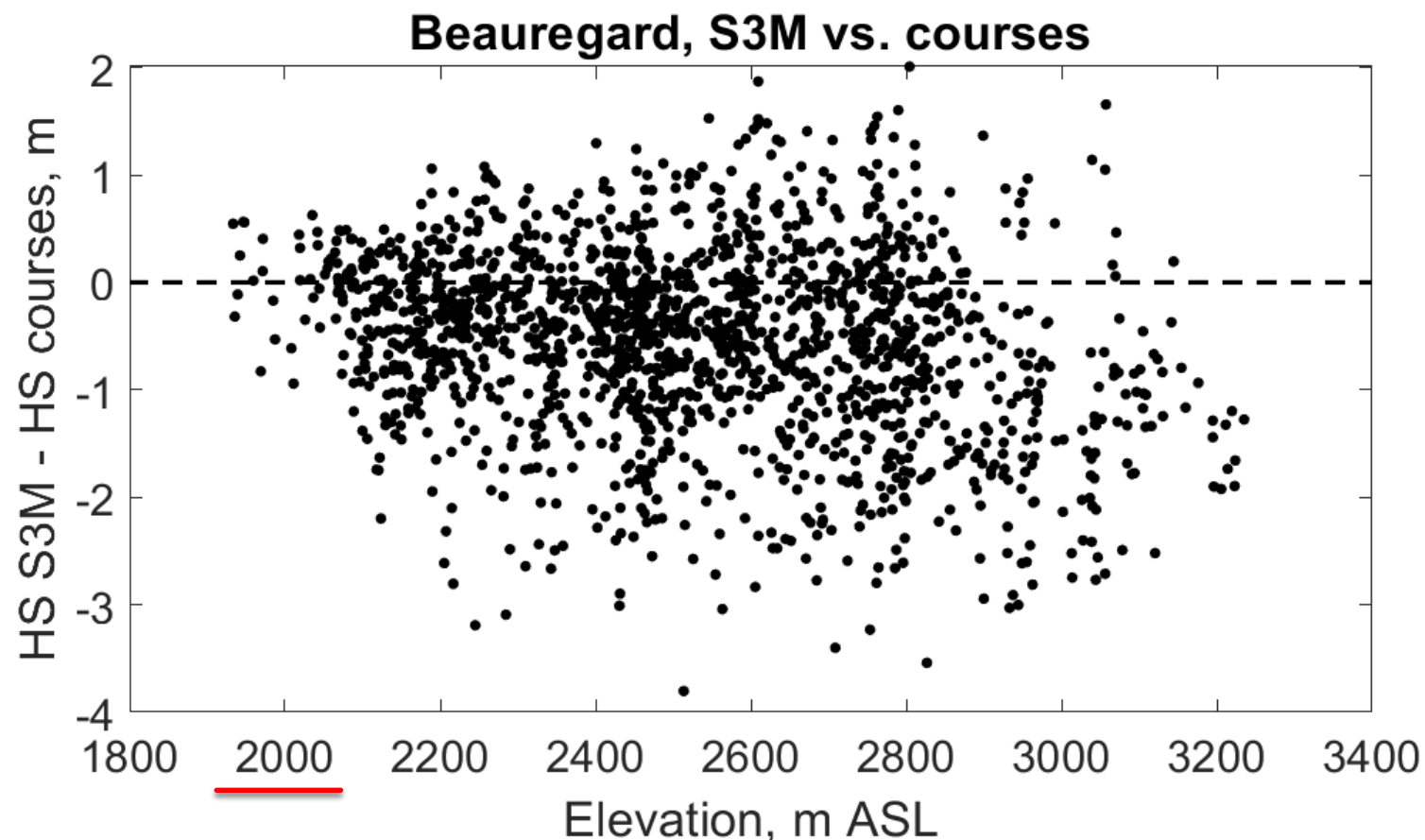
Avanzi et al. (prep.)

We focused on improving hydrologic predictions for **high-elevation, hydropower-related, ungauged catchments.**

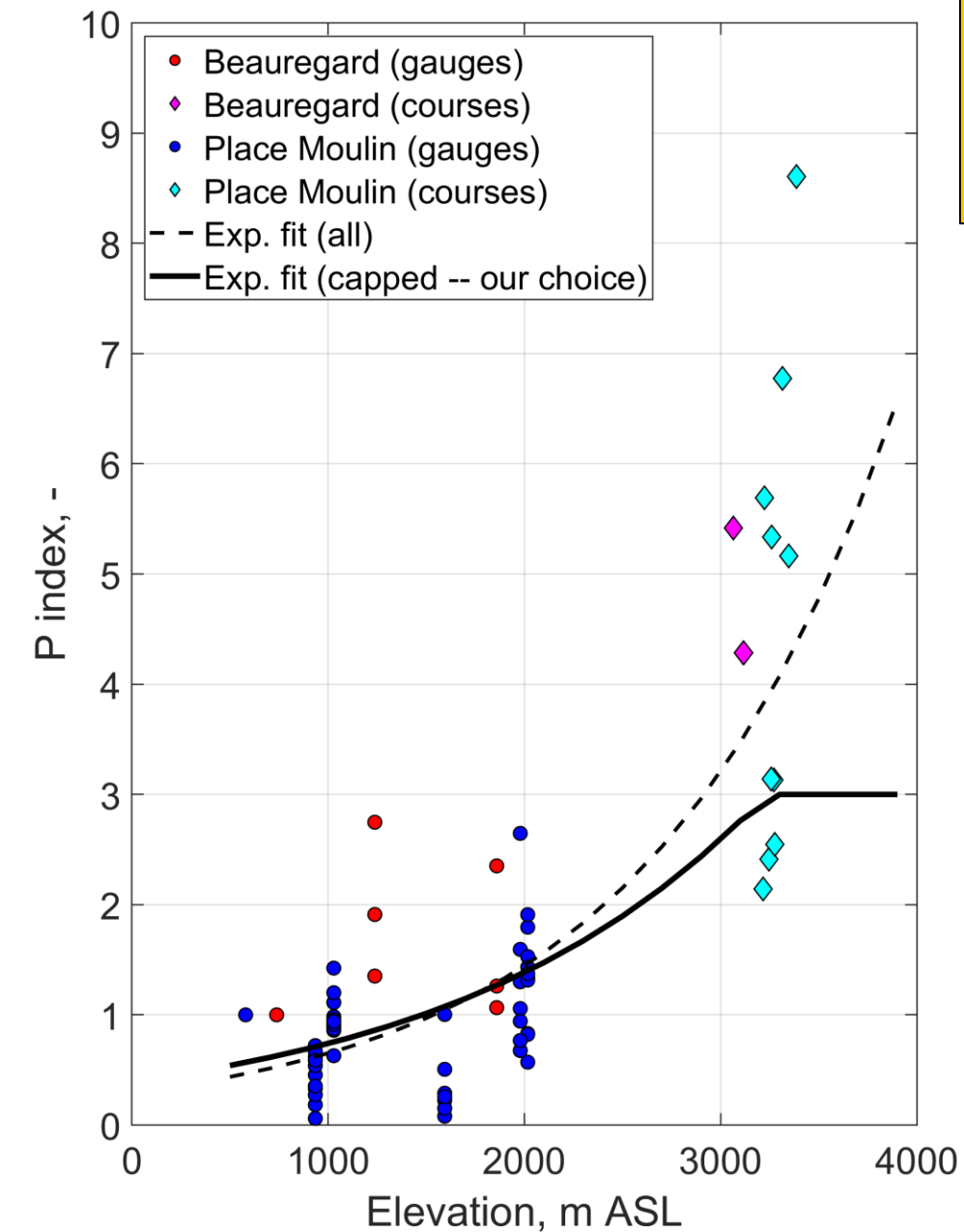No prec. gauge, but **thousands of manual snow data**

0   7.5   15 km

⊙ Precip. gauges   · Course (example)   Beauregard   Place Moulin

Reason is that for these ungauged high elev. catchments, we tend to underestimate snow-course SWE and annual runoff

Beauregard 2017

Beauregard, S3M vs. courses

Can snow-course data help us learn about precipitation orographic enhancement and thus improve snow-hydrologic predictions?

Yes, even sparse data help!

Beauregard 2017

Beauregard, S3M vs. courses