SENSITIVITY OF SPRING-SUMMER DROUGHT TO WARMING IN MONTANE AND ARID REGIONS
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1. The ratio of AET/PET is an indicator of aridity and also of the availability of water for evapotranspiration

2. The AET/PET ratios contain information of the spatial distribution of the spring-summer soil moisture footprint of winter snowpack.

3. Warming strongly affects the wintertime rain/snow ratio and the spring-summer snowmelt and AET rates.

4. Winter precipitation is an important determinant of spring-summer drought not only in the snow-covered areas, but also in a large part of arid and semi-arid regions.

5. The connection between winter precipitation and spring-summer drought in high AET efficiency regions is governed by the thermodynamics of snow processes and therefore very sensitive to warming.

6. Changes in soil moisture due to prescribed changes of temperature and precipitation, support the notion that spring-summer drought in regions of high AET efficiency would be more affected by warming through significant increases in spring AET, while changes in precipitation affect drought conditions in the arid regions.

7. Conclusions

APPENDIX: DATA SOURCES

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