



SnowHydro 2018

# SnowHydro – International Conference on Snow Hydrology

12. – 15. February 2018, Heidelberg

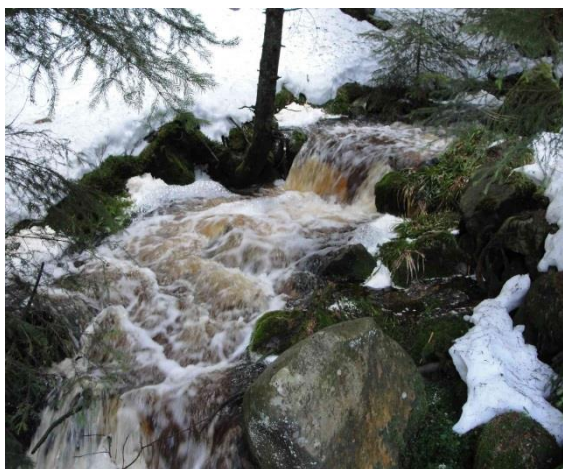


**First circular: Conference announcement**

SnowHydro will take place in Heidelberg (Germany),  
at the Department of Geography at Heidelberg University,  
from Monday 12. February to Thursday 15. February 2018

<http://www.geog.uni-heidelberg.de/hydro/snow2018.html>

Snow is an important component of the hydrological cycle. The seasonal storage of water in the snowpack may last over months, and its retarded release is a major factor of reliable water supply for ecosystems and human needs during dry periods. Rapid snow melt can however cause destruction through sudden floods, mostly in combination with rainfall. Thus, water demanding downstream regions are highly vulnerable with regard to the presence or absence of snow in the headwaters.



Increasing air temperatures and changing precipitation patterns driven by climate change will modify snow conditions and thus lead to changing water supplies. The consequences of reduced snow duration and an increasing share of rainfall on precipitation will completely change the hydrology of a region and may lead to severe water problems.

The spatial heterogeneity of snow accumulation and ablation in complex terrain is triggered by multiple causes, and the reliable estimation of the variability of the snowpack remains a challenge.



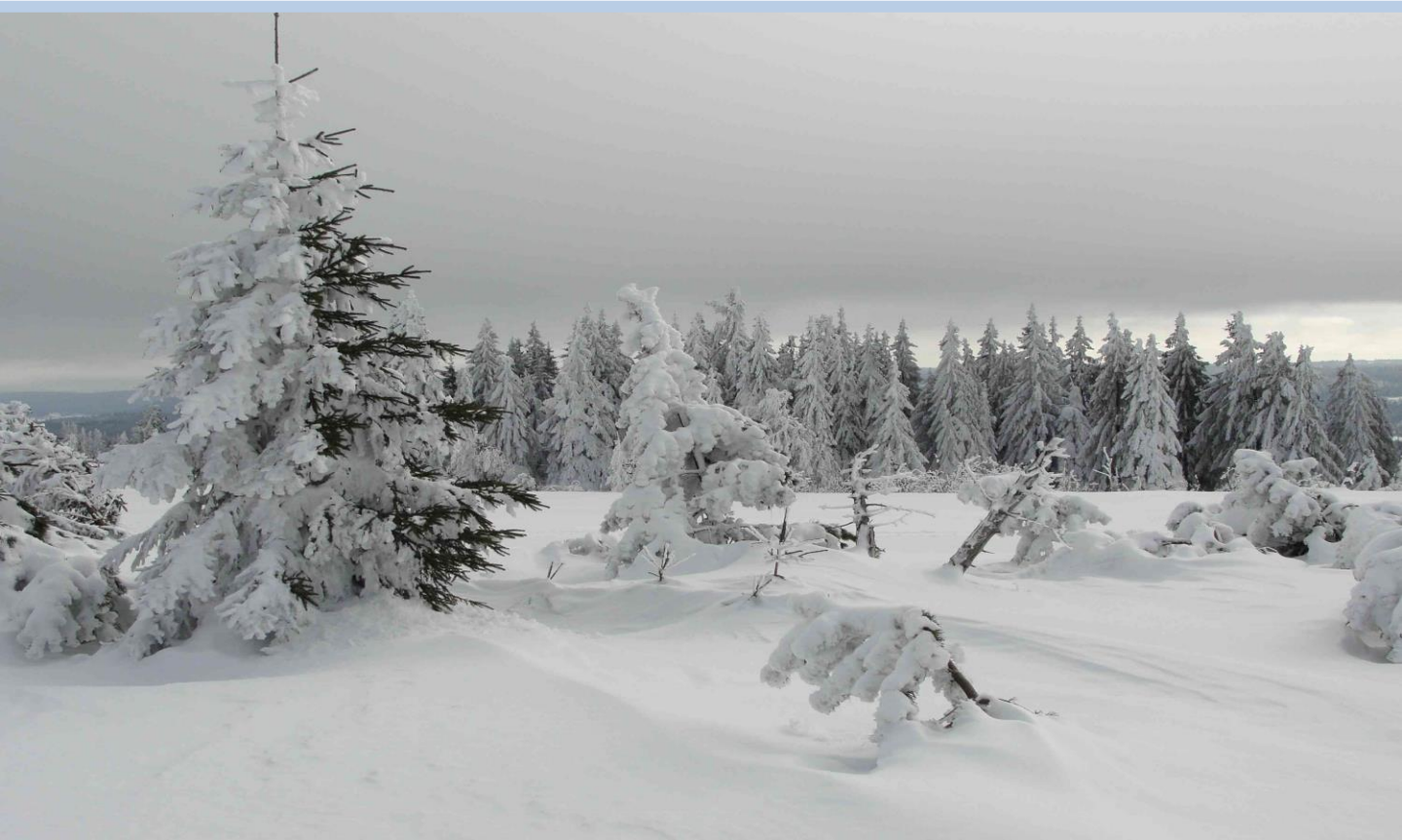
Traditional methods provide accurate information at the point scale, but they lack high observation frequency and spatial coverage. Remote sensing techniques are able to monitor the snowpack over large spatial domains. Yet, beside limited temporal resolution, remotely sensed data is often biased by snow misclassifications and cloud cover. Hydrological models require reliable input data, but these have limited availability especially in mountainous regions. The simulation of snowmelt frequently lacks sufficient spatial and temporal detail, so that forecasting of snowmelt runoff for operational purposes is still a challenging task.



The SnowHydro conference will address the range of topics with regard to snow and its significance for hydrology. It aims at bringing together experience from experimental research, hydrological modelling and remote sensing, and it will facilitate joint research on snow science.

We welcome contributions on all aspects of snow and hydrology, with emphasis on the following specific topics:

- ✓ remote sensing of snow properties
- ✓ experimental research and new measurement techniques
- ✓ spatial variability of snow
- ✓ snow-vegetation interaction
- ✓ snow data assimilation for modelling purposes
- ✓ the prediction of snow melt and runoff
- ✓ simulation models of snow, model comparisons
- ✓ snow in semi-arid environments
- ✓ climate change, snow conditions and water supply
- ✓ teaching concepts in snow hydrology



After this first announcement, a Call for Papers and Sessions will be issued in **May 2017**. The deadline for receipt of proposals will be **October 2017**. A draft program will be published in **December 2017**.

Visit the conference page

<http://www.geog.uni-heidelberg.de/hydro/snow2018.html>

for updated information

The Conference will include a full range of academic sessions, plenary lectures, social events and a field trip to the Black Forest.

The participation of early career scholars and postgraduate researchers is positively encouraged.



We gratefully acknowledge the support of the German Hydrological Society (DHG) and the Heidelberg Center for the Environment (HCE).

Photo credits: Lucas Menzel



UNIVERSITÄT  
HEIDELBERG  
ZUKUNFT  
SEIT 1386

