

19th International  
**SWISS CLIMATE SUMMER SCHOOL**  
29 August – 3 September 2021  
Monte Verità, Ascona, Switzerland

# VEGETATION, LAND SURFACE AND CLIMATE INTERACTIONS

**ETH** zürich

**u<sup>b</sup>**

**UNIVERSITÄT  
BERN**

**OESCHGER CENTRE  
CLIMATE CHANGE RESEARCH**



## FROM THE ATMOSPHERIC TO CLIMATE IMPACTS



## VEGETATION-CLIMATE INTERACTIONS IN THE CONTEXT OF CLIMATE CHANGE



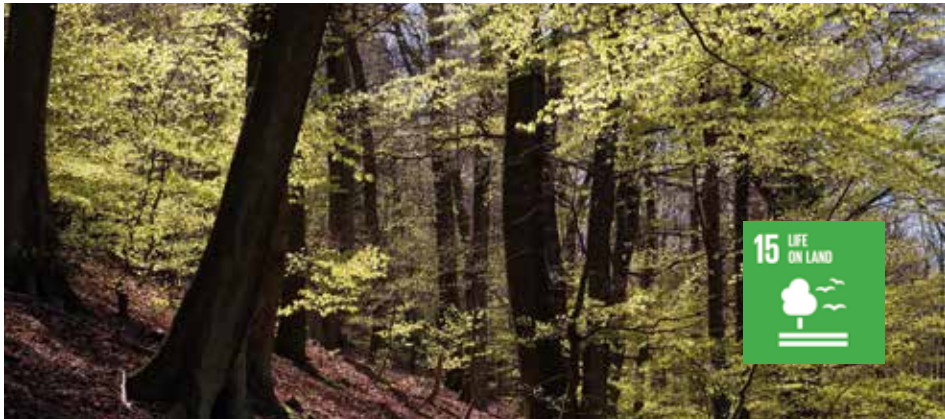
## CARBON CYCLE FEEDBACKS IN THE CLIMATE SYSTEM



## SUSTAINABLE DEVELOPMENT GOALS



Picture from flickr, <https://bit.ly/2FWai0C>



### SWISS CLIMATE RESEARCH

The network of leading Swiss institutions in climate research and education invites early stage scientists to join high-profile climate researchers in Southern Switzerland for keynote lectures, workshops, poster sessions, and personal interactions on the occasion of the 19th Swiss Climate Summer School 2021.

### SCOPE OF THE SUMMER SCHOOL

The 19th International Swiss Climate Summer School focuses on the theme "Vegetation, Land Surfaces and Climate Interactions". The purpose of this summer school is to bring early stage researchers in touch with established scientists from different disciplines to address the question how vegetation and the land surface are affected and altered due to climate change, and how the resulting changes feed back to the atmosphere and hydrological processes in the climate system. The carbon cycle, which directly affects the global greenhouse gas budget, and the hydrological cycle, which is strongly influenced by plant transpiration, are the key relations between vegetation and climate that will be addressed from multiple perspectives during the summer school. The main questions to be addressed in the keynote lectures and discussed in smaller groups within the planned workshops are:

- How do forests and other ecosystems interact with climate and climate change, and on which temporal and spatial scales?
- How does water vapor in the atmosphere – the strongest greenhouse gas – depend on vegetation distribution and activity, and how does it relate to anthropogenic emissions of CO<sub>2</sub> and other greenhouse gases?
- How can we measure CO<sub>2</sub> and greenhouse gas fluxes and their driving climate variables to inform and improve computer models?
- What mitigation options exist to alleviate climate change effects via land use management?
- How exactly are soil and vegetation-atmosphere interactions represented in climate models, and what research needs exist to increase model prediction skills?

This summer school addresses early stage researchers from the climate, agriculture, and forest ecosystems sciences. In addition to keynote lectures from internationally renowned experts and extensive time for discussions and poster sessions, two half days will be scheduled for parallel workshops. All Summer School participants are expected to present a poster of their research to discuss their own research with the other participants.

### LECTURERS FOR KEYNOTES AND WORKSHOPS, AND ORGANIZERS (confirmed)

**R. BARDGETT** (U Manchester, UK)  
**E. DAVIN** (ETH, CH)  
**W. EUGSTER** (ETH, CH)  
**A. GALLEGU-SALA** (U Exeter, UK)  
**M. GHARUN** (ETH, CH)  
**C. GROSSIORD** (EPFL & WSL, CH)  
**A. JENTSCH** (U Bayreuth, DE)  
**F. JOOS** (U Bern, CH)

**J. PONGRATZ** (LMU Munich, DE)  
**A. RIGLING** (ETH & WSL, CH)  
**C. SCHNADT POBERAJ** (ETH, CH)  
**S. SENEVIRATNE** (ETH, CH)  
**B. STOCKER** (ETH, CH)  
**W. TINNER** (U Bern, CH)  
**K. TREYDTE** (WSL, CH)  
**G. VON ARX** (WSL, CH)

### DEADLINE FOR APPLICATIONS: 28 FEBRUARY 2021

The Summer School is open to early stage researchers (PhD students and postgraduate students) worldwide. Participation is highly competitive and will be limited to a maximum of 65. The registration fee (1300 CHF) includes full board accommodation, excursion, and teaching material. Successful applicants will be notified in March 2021. The Swiss Climate Summer School thrives on the physical presence of both participants and speakers. However, note that depending on the Covid-19 situation, we might need to adapt the school format accordingly. Detailed information and the application form are available at: [www.climateresearch.ch](http://www.climateresearch.ch).

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**ETH** zürich



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