

18th International  
**SWISS CLIMATE SUMMER SCHOOL**  
8 - 13 September 2019, Monte Verità, Ascona, Switzerland

# CARBON AND CLIMATE IN THE PARIS WORLD: GETTING OUT OF THE FOSSIL FUEL CARBON BUDGET CRUNCH.

**ETH** zürich

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

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**UNIVERSITÄT  
BERN**



## NATURE, SIZE, AND PROCESSES OF THE CARBON BUDGET



## CO<sub>2</sub> EMISSIONS, DRIVERS, AND TRAJECTORIES →



## CREATING NEGATIVE EMISSIONS AND OTHER GEOENGINEERING OPTIONS



## SOCIETAL AND ECONOMIC PROCESSES AND RESPONSES →



## SWISS CLIMATE RESEARCH

The network of leading Swiss institutions in climate research and education invites young scientists to join high-profile climate researchers in Southern Switzerland for keynote lectures, workshops, and poster sessions on the occasion of the 18th Swiss Climate Summer School 2019.

## SCOPE OF THE SUMMER SCHOOL

The 18th International Swiss Climate Summer School focuses on the theme «Carbon and climate in the Paris world: getting out of the fossil fuel carbon budget crunch». It is motivated by the current paradoxical situation wherein the internationally recognized warming targets of 2°C or even 1.5°C imply a tightly limited fossil fuel emission budget for the entire 21st century, while the trends in the fossil fuel emissions suggest that this budget is consumed within the next one to three decades. With conventional mitigation and adaptation options not sufficiently exploited, humankind may need to deploy unconventional methods to meet its climate target. In this highly interdisciplinary summer school, we will learn about and discuss

- the nature, size, and controlling processes of this carbon budget,
- the drivers behind past and future fossil fuel emissions,
- the climatic consequences of the Paris agreement,
- the options available to us to create negative emissions, and
- the socio-economic drivers that can either accelerate or decelerate these developments.

This summer school addresses Early Stage Researchers from the climate, engineering, social and economic sciences. In addition to keynote lectures from internationally renowned experts and extensive time for discussions and poster sessions, two half days will be spent in smaller groups working jointly on concrete case studies, involving practitioners. The theme of the summer school is very timely, as the role and potential of negative emissions is a rapidly emerging topic for science, technology, and policymaking alike, and has also led to several initiatives around the world. All Summer School participants are expected to present a poster of their research.

Pictures from "For Climate's Sake!", Lars Müller Publishers, 2012

## LECTURERS FOR KEYNOTES AND ORGANIZERS (confirmed)

**PHILIPPE CIAIS** → LSCE, FR  
**SABINE FUSS** → MCC and HU Berlin, DE  
**NICOLAS GRUBER** → ETH Zurich, CH  
**RETO KNUTTI** → ETH Zurich, CH  
**ULRIKE LOHMANN** → ETH Zurich, CH  
**MARCO MAZZOTTI** → ETH Zurich, CH  
**JULIA PONGRATZ** → LMU Munich, DE

**FORTUNAT JOOS** → U Bern, CH  
**CHRISTINA SCHNADT POBERAJ**, ETH Zurich, CH  
**THOMAS STOCKER** → U Bern, CH  
**PHILIPPE THALMANN** → EPFL, CH  
**IVO WALLIMANN-HELMER** → U Fribourg, CH  
**MARTIN HEIMANN** → MPI-Jena, DE  
**NIKLAUS E. ZIMMERMANN** → WSL, CH

## DEADLINE FOR APPLICATIONS: 11 JANUARY 2019

The Summer School is open to young researchers (PhD students and Post-Docs) worldwide. Participation is highly competitive and will be limited to a maximum of 65. The registration fee (1300 CHF) includes half board accommodation, excursion, and teaching material. Successful applicants will be notified in February 2019. Detailed information and the application form are available at: [www.climate-research.ch](http://www.climate-research.ch).

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