



Schweizerische Eidgenossenschaft  
Confédération suisse  
Confederazione Svizzera  
Confederaziun svizra

Swiss Confederation

Federal Department of Home Affairs FDHA  
Federal Office of Meteorology and Climatology MeteoSwiss

**MeteoSwiss**

13<sup>th</sup> to 14<sup>th</sup> September 2021, virtual event

# Swiss National GAW/GCOS Symposium

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The role of consistent observations for the understanding of the Earth System across the water, energy and carbon cycles.



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## Aims

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...to **showcase achievements** of the national GAW and GCOS programmes and their associated communities



...to **promote the understanding** of the water, carbon and energy cycles and assess related observational gaps



...to **spark ideas for innovative and collaborative approaches** across the broader Swiss GAW and GCOS communities

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## About

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### GAW-CH

Launched in 1989, the Global Atmosphere Watch programme (GAW) is a partnership of over 100 countries to monitor the composition of the atmosphere. The programme supports a worldwide network of selected monitoring stations for measuring greenhouse gases, ozone, UV radiation, aerosols, reactive gases and precipitation chemistry with high accuracy and comparable around the globe. The GAW-CH Office at MeteoSwiss coordinates around a dozen institutions that carry out the Swiss national GAW activities, including monitoring and research, as well as central facilities for calibration and quality assurance of the global network. GAW is the atmospheric chemistry component of GCOS.

More information [GAW-CH](#)

More information [GAW International](#)

### GCOS Switzerland

The Global Climate Observing System (GCOS) was established in 1992 to globally coordinate climate observation and to provide users with the data and information needed to address climate-related concerns. Today, within the framework of GCOS Switzerland, high quality data on 33 Essential Climate Variables (ECVs) are being continuously collected, processed and made available to the public. GCOS Switzerland also includes 6 international calibration and data centers. The systematic observation of ECVs and the operation of international centres in Switzerland is facilitated by the common effort of 28 National Partner Institutions.

More information [GCOS Switzerland](#)

More information [GCOS International](#)



# Day 1 – Monday, 13<sup>th</sup> September 2021

9:00		Log-in & virtual welcome
10:00	Opening Session	<b>Welcome address: MeteoSwiss</b> Bertrand Calpini, MeteoSwiss Deputy Director
10:05		<b>Welcome address: GAW and GCOS International Programmes</b> Oksana Tarasova, Head of GAW – WMO Han Dolman, Chairman GCOS Steering Committee – WMO
10:15		<b>Information</b> regarding the structure and agenda of the symposium
10:20		<b>Keynote address: WMO perspective</b> Jürg Luterbacher, WMO Director of Science & Innovation
10:35		<b>Keynote address: IPCC perspective</b> Sonia Seneviratne, Coordinating lead author of the AR6
11:05		<b>Keynote address: ECMWF perspective</b> Vincent-Henri Peuch, Deputy Director of the Copernicus Department at ECMWF
11:45		Lunch break
13:00	Carbon Cycle	<b>Keynote address: Overview and challenges</b> Han Dolman, Vrije University Amsterdam
13:30		<b>From weather to ecosystem forecasts - Opportunities for reliable carbon cycle and climate impact projections</b> Benjamin Stocker, ETH Zurich
13:50		<b>Combined O<sub>2</sub> and CO<sub>2</sub> measurements as tool for the partitioning of CO<sub>2</sub> emissions among the atmosphere, biosphere and ocean</b> Markus Leuenberger, University of Bern
14:10		Short break
14:20		<b>Soil carbon sequestration as net emission technology – Where do we stand?</b> Jens Leifeld, Agroscope
14:40		<b>Estimating emissions from ground-based and space-borne trace gas observations: Services for climate change mitigation</b> Dominik Brunner, Empa
15:00		<b>Meet the speakers on gather.town</b>
15:20	<b>Synthesis discussion and main findings</b> Discussion moderated by Han Dolman	
15:45		<b>Poster pitches</b>
16:00		<b>Virtual poster session &amp; open-end apéro on gather.town</b>
17:30		End of day 1



# Day 2 – Tuesday, 14<sup>th</sup> September 2021

9:00	<b>Energy Balance</b>	<b>Keynote address: Overview and challenges</b> Karina von Schuckmann, Mercator Océan – France
9:30		<b>The GAW-CH contributions to constraining aerosol radiative impacts with in-situ and remote sensing measurements</b> Martin Gysel-Ber, PSI
9:50		<b>Radiation balance measurements from the Surface and Space</b> Julian Gröbner, PMOD
10:10		Short break
10:20		<b>Aerosol-cloud interactions in orographic clouds – Observations and simulations</b> Ulrike Lohmann, ETH Zurich
10:40		<b>Satellite-based radiation and its application</b> Anke Duguay-Tetzlaff, MeteoSwiss
11:00		<b>Meet the speakers on gather.town</b>
11:20		<b>Synthesis discussion and main findings</b> Discussion moderated by Karina von Schuckmann
11:45	<b>Poster pitches</b>	
12:00		Lunch break
13:00		<b>Virtual poster session on gather.town</b>
13:40	<b>Water Cycle</b>	<b>Keynote address: Overview and challenges</b> Anny Cazenave, ISSI
14:10		<b>Observations for land water resources and drought conditions: Soil moisture and runoff</b> Lukas Gudmundsson, ETH Zurich
14:30		<b>Glacier changes and water resources in a changing climate in the water towers of the world</b> Francesca Pellicciotti, WSL
14:50		Short break
15:00		<b>Combining approaches for improved quality and quantity of precipitation estimates in high mountains environments</b> Nadine Salzmann, University of Fribourg
15:20		<b>Coupled information sources nurture water quality studies and services</b> Damien Bouffard, Eawag
15:40		<b>Meet the speakers on gather.town</b>
16:00		<b>Synthesis discussion and main findings</b> Discussion moderated by Anny Cazenave
16:25	<b>Recap</b>	<b>Recap of the main points of the symposium</b> Han Dolman, Karina von Schuckmann, Anny Cazenave, Vincent-Henri Peuch
16:45	<b>Closing Part</b>	<b>Synthesis discussion panel with introductory remarks from Thomas Stocker</b> Brigitte Buchmann – Empa, Bertrand Calpini – MeteoSwiss, Janet Hering – Eawag, Jürg Luterbacher – WMO, Karine Siegwart – FOEN
		<b>Closing of the symposium</b> Bertrand Calpini, MeteoSwiss Deputy Director
17:35		End of day 2



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# Organisation

## Scientific Programme Committee

Julian Gröbner  
Martin Hoelzle  
Fortunat Joos  
Sonia Seneviratne  
Martin Steinbacher  
Reto Stöckli  
Martin Wild

## Organising Committee

GAW-CH Office  
Swiss GCOS Office

# Practical Information

## Poster Session

The virtual poster session will take place on gather.town and is dedicated to the Swiss national GAW and GCOS activities.

## Form of the symposium

Due to the epidemiological situation, we have decided to hold the symposium in a virtual format. There will be a live broadcast of all presentations and discussions, and you will be able to participate through an interactive online meeting platform.

Please click [here](#) to register.

There is no participation fee.

