



GAW-CH Conference 18-19 January 2011

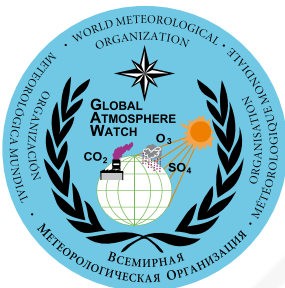
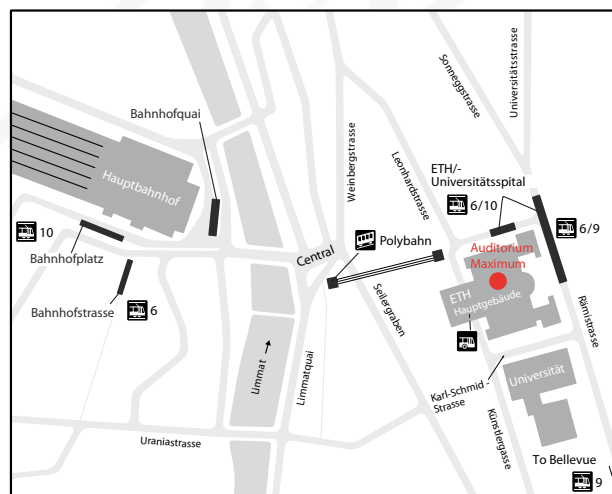
Swiss Federal Institute of Technology ETHZ
Auditorium Maximum
Zurich – Switzerland

Conference venue

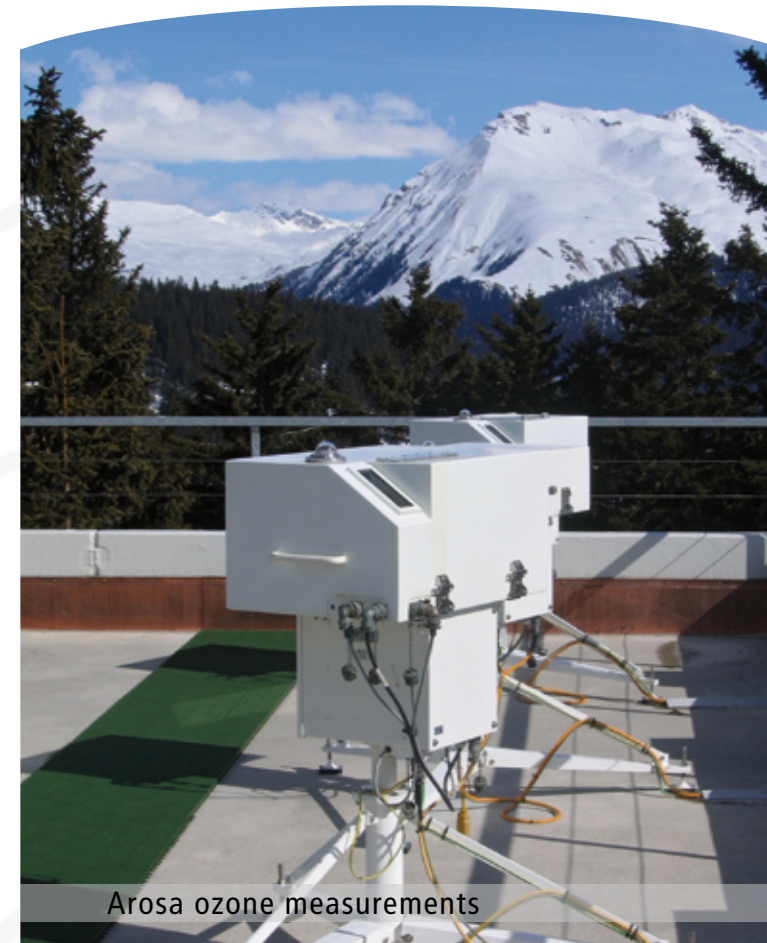
From tram stop «Bahnhofstrasse/HB»: tram no. 6 (direction Zoo)
to tram stop «ETH/Universitätsspital».

From tram stop «Bahnhofplatz/HB»: tram no. 10 (direction Flughafen
or Bahnhof Oerlikon) to tram stop «ETH/Universitätsspital».

Journey time: about 7 minutes.



GAW - Global Atmosphere Watch
For more information, please visit
www.meteoswiss.ch/gaw



Arosa ozone measurements

GAW-CH Conference 2011

The Global Atmosphere Watch programme (GAW) of the World Meteorological Organization (WMO) monitors and assesses the influence of human activity on the global atmosphere. Established in 1989, GAW provides high quality observations and analyses of atmospheric composition and selected physical properties, with an emphasis on quality assurance and control, and delivers integrated products and services to users.

In 1994, the Swiss GAW programme (GAW-CH) was launched as a national contribution to the international GAW programme. GAW-CH is coordinated by the Federal Office of Meteorology and Climatology MeteoSwiss. Within GAW-CH, a strong collaboration has been established between national research institutions and federal offices involved in atmospheric observations and analyses. The Swiss GAW programme includes monitoring of various physical and chemical atmospheric variables, research activities and advanced services, so as to deliver reliable information to the scientific community and to policymakers.

This conference will present the main results of the GAW-CH projects carried out from 2007 to 2009. During this period, numerous scientists from several Swiss institutions were active in research and monitoring projects, covering topics such as stratospheric processes, cloud properties, radiative forcing, aerosols and trace gases. As well as reviewing the outcome of these GAW-CH projects, the conference will look ahead to the GAW-CH projects planned for 2010–2013.

18-19 January 2011

Swiss Federal Institute of Technology ETHZ
Auditorium Maximum

15 December

Please register until **30 November 2010** on the conference website: www.meteoswiss.ch/gaw-conference

Programme

Tuesday, 18 Jan 2011

Opening and Overview

- 09:45 **Introduction**
Gerhard Müller, MeteoSwiss
- 09:55 **The GAW international activities related to WMO**
Liisa Jalkanen, WMO
- 10:10 **The GAW programme in atmospheric research and in the field of environmental prediction**
Oystein Hov, Chair WMO OPAG & JSSC/EPAC

- 10:30 **The Swiss GAW Programme**
Dominique Ruffieux, MeteoSwiss

Coffee break

First Session: Gaseous Species

- 11:05 **Reactive gases: the beauty and the beast for modeling tropospheric ozone changes**
Martin Schultz, Forschungszentrum Jülich
- 11:25 **Greenhouse gases: trends and top down regional emissions**
Brigitte Buchmann, Empa
- 11:45 **Better GAW data quality with new analytical techniques**
Christoph Zellweger, Empa
- 12:05 **Monitoring of greenhouse gases at the Jungfraujoch: a 60-year database**
Philippe Demoulin, University Liège

Lunch

Second Session: Water Vapour and Clouds

- 13:45 **Importance of water vapour for GRUAN**
Holger Vömel, DWD Lindenberg
- 14:05 **Humidity from the ground to the mesopause by microwave radiometry**
Niklaus Kämpfer, University Bern
- 14:25 **Water vapour column integration at Payerne**
Rolf Philipona, MeteoSwiss
- 14:45 **Cirrus clouds and upper tropospheric humidity**
Thomas Peter, ETH Zurich

Coffee break

Third Session: Ozone

- 15:35 **Ozone recovery and the cooling stratosphere**
Wolfgang Steinbrecht, DWD Hohenpeissenberg
- 15:55 **Long-term merged ozone data records and the detection of ozone recovery**
Richard Stolarsky, John Hopkins University USA

- 16:15 **Ozone monitoring: operational services & science**
René Stübi, MeteoSwiss

- 16:35 **Long-term total ozone trends studies**
Johannes Staehelin, ETH Zurich

- 16:55 **Dynamics of stratospheric ozone by microwave radiometry**
Klemens Hocke, University Bern

17:15 *Ice breaker*

20:00 *Dinner*

Wednesday, 19 Jan 2011

Fourth Session: Aerosols

- 09:30 **Why do we measure aerosols at Jungfraujoch?**
Urs Baltensperger, PSI
- 09:50 **Importance of GAW aerosol data in climate modeling**
Ulrike Lohmann, ETH Zurich
- 10:10 **Aerosol-cloud interactions**
Ernest Weingartner, PSI

Coffee break

- 11:00 **The Raman Lidar at Payerne, a new perspective**
Bertrand Calpini, MeteoSwiss

- 11:20 **Importance of synoptic weather types in aerosol climatology**
Martine Collaud Cohen, MeteoSwiss

Fifth Session: Radiation

- 11:40 **The importance of surface radiation observations in climate research**
Martin Wild, ETH Zurich
- 12:00 **Uncertainties of solar spectral irradiance: implications for the modeling of the atmospheric chemistry and climate**
Eugene Rozanov, PMOD/WRC

Lunch

- 13:40 **UV: studying past evolution & serving future needs**
Laurent Vuilleumier, MeteoSwiss

- 14:00 **Long-wave radiation at Davos and implications for cloud changes**
Julian Gröbner, PMOD/WRC

- 14:20 **A century of turbidity measurements at PMOD, Davos**
Christoph Wehrli, PMOD/WRC

- 14:40 **Data management, discovery and retrieval of GAW data**
Jörg Klausen, MeteoSwiss

Summary

- 15:00 **GAW-CH, what we learned and future perspectives**
Chairmen/all

16:00 *End of the conference*