

# *Spawning the Atmosphere Measurements of Jungfrauoch*

**A Workshop organised by the sc|nat 'Jungfrauoch Kommission'**

Swiss Academy of Sciences, House of Science, Schwarztörstrasse 9, CH-3007 Bern,  
Conference Room 'Max' on the Ground Floor  
Tuesday (p.m.)/ Wednesday 25/26 November 2008

## Programme

### Tuesday afternoon, 25 November 2008, 1500 hrs – ca. 1900 hrs

1500-1520 – Introduction

- 1500 – Aims of the Workshop, *Martin C.E. Huber* (Jungfrauoch Kommission)
- 1510 – "The Alpine Research Station on Jungfrauoch – Origin, History and the Future", *Erwin O. Flückiger* (Univ. Bern, Director of the Research Station)

1520- 1620 – Reports (20 minutes with 10 minutes discussion each):

- 1520 – "Aerosol measurements in the context of the Global Atmosphere Watch Programme and several EC projects", *Urs Baltensperger* and Ernest Weingarten (Lab. Atm. Chem., PSI)
- 1550 – "Stratosphere-Troposphere Exchange", *Valentin Simeonov*, Hubert van den Bergh, *Marcel Bartlomé* and Bertrand Calpini (EPFL- Faculté Environnement Naturel, Architectural et Construit/Laboratory for Air and Soil Pollution, EPFL)

1620-1640 – **Coffee break**

1640-1840 – Reports

- 1640 – "Overview of existing high-level data products derived from high-resolution Fourier-Transform Infra-Red spectra recorded at the Jungfrauoch station, typical results and their valorisation", *Emmanuel Mahieu* (GIRPAS)
- 1710 – "Contributions to the exploitation of Fourier-Transform Infra-Red observations at the Jungfrauoch: recent work on O<sub>3</sub> and CO, and future research directions", *Martine De Mazière* et al. (Institute of Space Aeronomy, Brussels)
- 1740 – "Water vapour retrievals from Jungfrauoch spectra: valorisation of early observations for multi-decadal trend determinations", *Philippe Demoulin* (Université de Liège, Institut d'Astrophysique et de Géophysique, Groupe InfraRouge de Physique Atmosphérique et Solaire (GIRPAS))
- 1810 – "Long-term monitoring of stratospheric composition by ultraviolet-visible spectrometry and contribution to satellite validation", François Hendrick et al., (Institute of Space Aeronomy, Brussels) [presented by *Michel Van Roozendael*]

1840-1850 – Summary of First Day:

- 1840 – "First tentative conclusions following the reports of the first day", *Jean-Claude Gérard* (Laboratoire de Physique Atmosphérique et Planétaire, Institut d'Astrophysique et Géophysique, Université de Liège)

## **Wednesday, 26 November 2008, 0900 hrs – ca.1630 hrs**

0900-0915 – Introduction:

- 0900 – "The Original Atmospheric Aims of the Liège Measurements of the Solar Spectrum at High Resolution", *Ginette Roland* (Université de Liège)

0915-1015 – Reports (20 minutes with 10 minutes discussion each):

- 0915 – "Instrumental developments in the frame of harsh environmental conditions remote-controlled Fourier-Transform Spectroscopy", *Christian Servais* (GIRPAS)
- 0945 – "Multi-spectra multi-windows retrievals from ground-based Fourier-Transform Infra-Red spectra: application to carbonyl fluoride (COF<sub>2</sub>)", *Pierre Duchatelet* (GIRPAS)

1015-1035 – **Coffee break**

1035-1100 – General Discussion: "Spawning the Atmosphere Measurements of Jungfraujoch"

1100-1230 – Reports (20 minutes with 10 minutes discussion each):

- 1100 – "On the potential of the new Multi-Axis Differential Optical Absorption Spectroscopy (MAXDOAS) technique for the monitoring of tropospheric composition at the Jungfraujoch", *Michel Van Roozendaal* et al. (Institute of Space Aeronomy, Brussels)
- 1130 – "What can we learn from combined CO<sub>2</sub> and O<sub>2</sub> measurements at Jungfraujoch?", *Markus Leuenberger*, Physikalisches Institut, Klima- und Umweltphysik, University of Bern)
- 1200 – "Air pollution measurements at Jungfraujoch: from determination of trends to European source estimation", *Brigitte Buchmann* and Stefan Reimann (Air Pollution/Env. Technol., EMPA)

1230-1330 – **Lunch break**

1330-1530 – Reports (20 minutes with 10 minutes discussion each):

- 1330 – "Trace gas measurements at Jungfraujoch to study intercontinental air pollutant transport and tropospheric ozone trends", *Johannes Stähelin* and Thomas Peter (Inst. Atm. & Climate, ETHZ)
- 1400 – "Long-term air pollution records retrieved from Alpine ice cores", *Heinz Gäggeler* and Anja Eichler (PSI, Lab. f. Radiochem. & Environmental Chem.)
- 1430 – "Ice nuclei measurements in the context of the Global Atmosphere Watch Programme and several EC projects", *Olaf Stetzer*, Ulrike Lohmann and Berko Sierau (ETHZ, Inst. Atm. & Climate)
- 1500 – "Overview on activities in the frame of the Network for the Detection of Atmospheric Composition Change (NDACC) Primary Site Station Bern that belongs (for NDACC) to Jungfraujoch", *Niklaus Kämpfer* (Inst. Appl. Phys. Univ. Bern)

1530-1620 – Reports (17 minutes with 8 minutes discussion each)

- 1530 – "Comparing aerosol optical depth (AOD) observations at Jungfraujoch with those of lower altitude stations", *Laurent Vuilleumier* (Federal Office of Meteorology and Climatology, MeteoSwiss)
- 1555 – "Long records of weather measurements at Jungfraujoch and their significance yesterday, today and tomorrow", *Simon Scherrer* (Climate Services, Federal Office of Meteorology and Climatology, MeteoSwiss)

1620- 1630 – Conclusion:

- Summary, Actions, *Martin C.E. Huber* (Jungfraujoch Kommission)

1630- – **Farewell coffee break**