

Swiss NCCR Summer School

GRINDELWALD, SEPT. 7-14, 2002

The mountain resort of Grindelwald hosted the first ever Swiss NCCR (National Center for Competence in Climate Research) Summer School. Interest in the one week event was so high that two thirds of the applications had to be turned down. Along with the high mountains nearby, high expectations for stimulating sessions were clearly fulfilled, as a survey among the 80 participants and high profile lecturers from 20 countries showed.

A wide range of lectures, poster sessions, workshops and excursions was held around the central themes of "The Climate System: Past, Present and Future," "Climate Risks: Assessment, Hedging, Climate Variability" and "Predictability and Climate impacts". Topics of the 12 keynote lectures ranged from "The climate of the last millennium" (Ray Bradley, University of Massachusetts), and "The Climate System" (Thomas Stocker, University of Berne) to "Present and future climate: How sensitive is the climate" (Dennis Hartmann, University of Washington, Seattle) and "Assessing global climate change policies with computable general economic equilibrium models" (Alain Bernard, Ministry of Transport France). Arguably the most intense culture shock resulted when the traditional climate community was exposed to the work of economists - and vice versa. Talks that focused on the impact of global change on terrestrial ecosystems included "Climate change impacts on Swiss grasslands" (Jürg Fuhrer, FAL Zürich, Switzerland), "Climate change effects on agricultural crops" (Frank Ewert, University of Taastrup, Denmark), and "Global Environmental Change and Food and Fibre Production" (Peter Gregory, University of Reading).

A lot of researchers realised that colleagues specializing in very different areas were confronted with similar difficulties, mainly the need to upscale (or downscale) their findings in order to understand the big picture (or the details). For



Fig. 1: Participants of the NCCR Swiss Summer School in Grindelwald on excursion to the Lower Grindelwald Glacier.

example, people dealing with ecological impacts have to find ways to upscale the biochemical reactions they observe in cells to the level of organisms, then to the level of crops, to forests and finally to the ecosystem as a whole - and the other way around. The same conceptual difficulties can be found in climate observation and climate modelling and even - this was one of this Summer Schools revelations - in a top down vs. bottom up approach in the integrated assessment of global change policies.

The Summer School explored more common ground as several speakers presented their studies on interannual to decadal climate variability. Audiences were enthralled by topics such as "El Nino/Southern Oscillation: Observations, Mechanisms and Theory" (David Battisti, University of Washington), "Weather and Climate Variations: The Challenge of Prediction" (Huw Davies, ETH Zurich), and "Observations: Climate Modes and Dynamics (Pacific and Atlantic)" (Clara Deser, NCAR Boulder).

Finally, Heinz Wanner, University of Berne gave an introduction to the "History of Alpine Climatology and Meteorology"; Christian Pfister, University of Berne talked on "Climate

and Societies"; Alain Haurie, University of Geneva discussed "Top-down vs Bottom-up Approaches in Integrated Assessment Modelling" and Jean-Charles Hourcade, CIRED, France gave his view on "Damage uncertainties and timing of the responses to climate change: lessons from integrated stochastic optimal control models".

The second international NCCR Summer School will take place from 30 August to 6 September 2003, again in Grindelwald, and will focus on climate change and its impacts on terrestrial ecosystems (online registration on www.nccr-climate.unibe.ch).

PAGES co-sponsored the event by financing a number of grants and by organizing a one day visit at the IPO in Bern in order to discuss possibilities to better involve young scientists in PAGES activities. The 2002 PAGES fellows were Mariano Masioskas, Argentina who was the winner of the Summer School's Blackwell poster award Jarmila Mackova, Czech Republic, Rita Pongracz, Hungary and Olga Zolina, Russia.

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