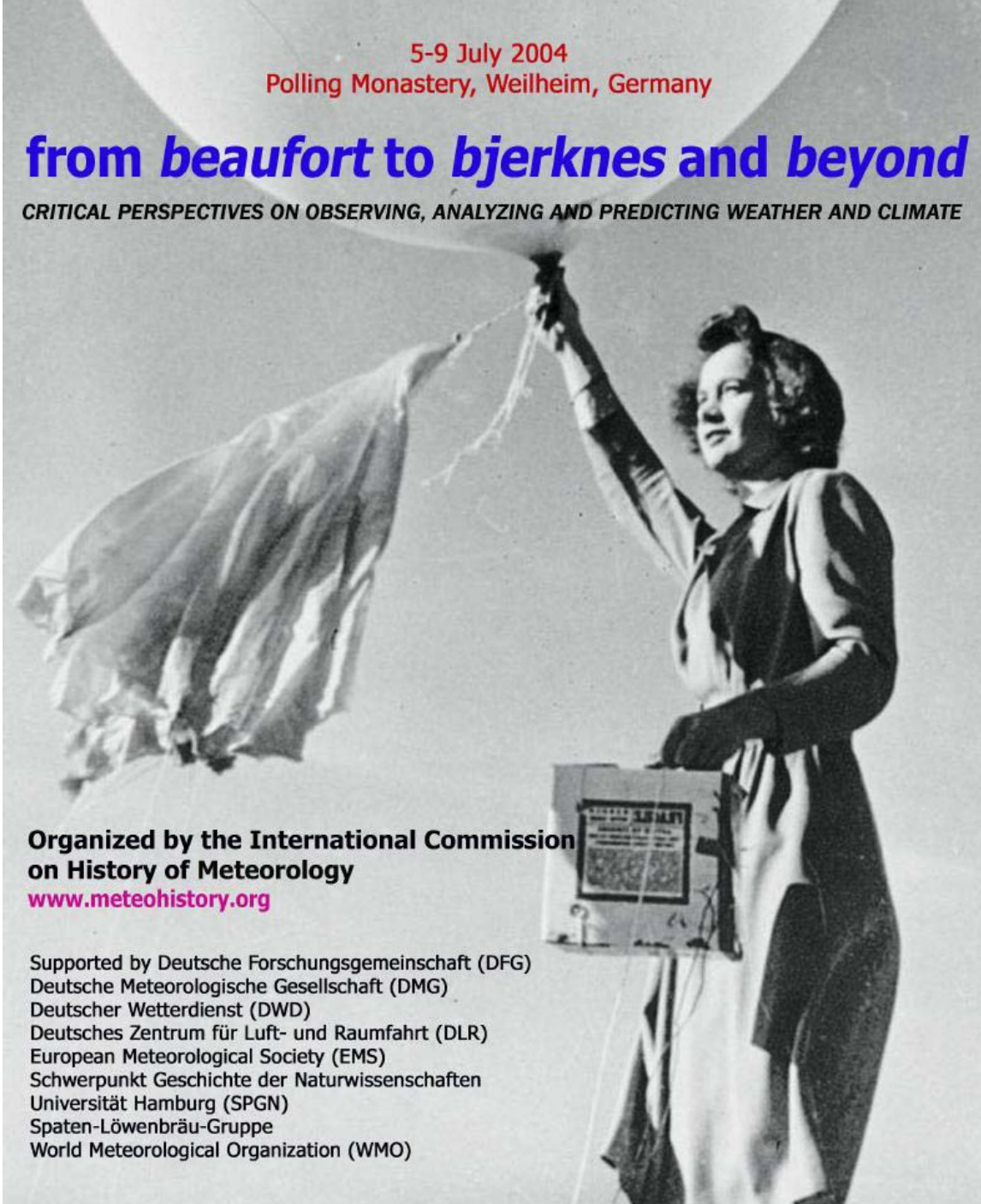


**INTERNATIONAL COMMISSION ON HISTORY OF METEOROLOGY**  
**Conference Programme**



5-9 July 2004  
Polling Monastery, Weilheim, Germany

**from *beaufort* to *bjerknes* and *beyond***

**CRITICAL PERSPECTIVES ON OBSERVING, ANALYZING AND PREDICTING WEATHER AND CLIMATE**

**Organized by the International Commission  
on History of Meteorology**  
[www.meteohistory.org](http://www.meteohistory.org)

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European Meteorological Society (EMS)  
Schwerpunkt Geschichte der Naturwissenschaften  
Universität Hamburg (SPGN)  
Spaten-Löwenbräu-Gruppe  
World Meteorological Organization (WMO)

**Barocker Bibliothekssaal, Kloster Polling**  
Weilheimer Straße, D-82398 Polling, Germany

Entry through courtyard opposite of *Alte Klosterwirtschaft*

## Monday, 5 July

09:00-10:30 Registration

10:30-12:00 Conference Opening and Keynotes

Chair: Hans Volkert

*Welcome and Opening*

Cornelia Lüdecke Vice-president of ICHM, President of DMG-FAGEM, Programme Chair

Heinrich Nöth President of Bayerische Akademie der Wissenschaften, München, D  
*“Polling and the academy – a 18<sup>th</sup> century competence centre”*

Stefan Emeis Vice-president of DMG-FAGEM, Local Arrangements Chair

*Conformity to observations: A banner and bane in the development of weather prediction*

Huw C. Davies Vice-president of the International Association for Meteorology and Atmospheric Science and Institute for Atmospheric and Climate Science, ETH, Zürich, CH

*Climate dynamics, science dynamics, and technological change, 1804-2004*

James R. Fleming President of ICHM and Science, Technology and Society Program, Colby College, Waterville, Maine, USA

12:00-14:00 Lunch

14:00-16:00 Early Modern Issues

Chair: Vladimir Jankovic

*A Renaissance depiction of a tornado*

Klaus P. Hoinka Institut für Physik der Atmosphäre, DLR, Oberpfaffenhofen, D

Manuel de Castro Dpto. Ciencias Ambientales, Univ. Castilla-La Mancha, Toledo, E

*An eighteenth-century meteorological society in the Netherlands: An investigation on early organization, instrumentation and quantification of the science of weather*

Huib J. Zuidervaat Bloemendaal, NL

*Early investigations of an aquaplanet*

Joseph Egger Meteorologisches Institut, Ludwig Maximilians Universität, München, D

*Joseph Stepling and windstorms in Europe from 17-19 February 1756*

Jan Munzar Academy of Science of the Czech Republic, Brno, CZ

*Lightning and gunpowder in the 18<sup>th</sup> Century*

E. Philip Krider Institute of Atmospheric Physics, University of Arizona, Tucson, Arizona, USA

*Discussion*

16:00-16:20 C o f f e e break and posters

16:20-18:00 Nineteenth Century I

Chair: Mott Greene

*The dialectic of the atmosphere: Heinrich Wilhelm Dove's meteorology in its philosophical and political context*

Bernhard Fritscher Lehrstuhl für Geschichte der Naturwissenschaften, Univ. München, D

*Heinrich Wilhelm Dove's position in the history of meteorology of the 19th century*

Karl-Heinz Bernhardt Leibnitz Societät, Berlin, D

*K.E.v. Baer's contribution to the research into the climate of polar regions during the period of 1830 to 1840*

Erki Tammiksaar Baer-Museum, Tartu, Estonia

*On the verge of a new science: Meteorology in John Herschel's terrestrial physics*

Gregory Good Dept. of History, West Virginia University, Morgantown, USA

*Discussion*

*Presentation of the EMS Young Student Travel Award*

Werner Wehry President European Meteorological Society, Freie Univ., Berlin, D

18:30-20:00 Ice-breaker party, Alte Klosterwirtschaft Polling ( <http://www.klosterwirtschaft-polling.de> )

## T u e s d a y, 6 J u l y

09:00-10:40 The Dynamics of Climate Change

Chair: Gregory Cushman

*Eduard Brückner's analysis of climatic change and climate impact*

Hans von Storch Institute for Coastal Research, GKSS Research Center, Geesthacht, D  
Nico Stehr ITAS, Forschungszentrum Karlsruhe, Karlsruhe, D

*Influence of climate on fisheries: Overview of emergence, approval and perception of the idea, 1850-1950s*

Julia A. Lajus Institute for the History of Science and Technology, Russian Academy of Sciences, and Centre for Environmental and Technological History, European University at St. Petersburg, RUS

*From weather modification to climate change: The work of Gordon J.F. MacDonald*

Naomi Oreskes University of California San Diego, San Diego, California, USA

*Toy models and MIPS: Science and technoscience in climate modeling, 1957-2004*

Mott Greene University of Puget Sound, Tacoma, Washington, USA

*Discussion*

10:40-11:00 C o f f e e break and posters

11:00-12:40 The Societas Meteorologica Palatina

Chair: Stefan Emeis

*The very first beginning of the Observatorium Hohenpeißenberg*

Klaus Wege Deutscher Wetterdienst, Observatorium Hohenpeißenberg, D

*Astrometeorological weather prediction at the time of the Societas Meteorologica Palatina*

Cornelia Lüdecke SP Geschichte der Naturwissenschaften, Universität Hamburg, D

*From observant station of the Societas Meteorologica Palatina at Pyshma to the Ural region administration of GIDROMET: History of development of meteorological supervision at the border of Europe and Asia (Ural)*

Vladimir Litovsky The Russian State Vocational-Pedagogical University, Yekaterinburg, RUS

*Early observations of and knowledge on air electricity and magnetism at Hohenpeißenberg during the Palatina era*

Peter Winkler Deutscher Wetterdienst, Observatorium Hohenpeißenberg, D

*Discussion*

12:40-14:30 L u n c h

14:30-15:00 Bus Trip to the Hohenpeißenberg Observatory of Deutscher Wetterdienst (DWD)

15:00-17:00 Tour of the Observatory and coffee break

17:30 Return

**W e d n e s d a y, 7 July**

09:00-10:20 Focus on the Americas

Chair: Katharine Anderson

*Abbot Lawrence Rotch: Observer extraordinaire*

Jinny Nathans American Meteorological Society, Boston, Massachusetts, USA

*American meteorological culture during World War II*

Roger Turner History and Sociology of Science Department, University of Pennsylvania, Philadelphia, Pennsylvania, USA

*Bergen South: The Americanization of the meteorology profession in Latin America during World War II*

Gregory T. Cushman History Department, University of Kansas, Lawrence, Kansas, USA

*Discussion*

10:20-10:40 C o f f e e break and posters

**10:40-12:00 Practical and Theoretical Issues**

Chair: Togo **Tsukahara**

*The unknown history of Schwarzschild's equation*

Joachim **Pelkowski** Institut für Meteorologie und Geophysik, J.W.Goethe-Universität  
Frankfurt, Ober-Mörlen, D

*Weather, finance and meteorology: Forecasting and derivatives*

Samuel **Randalls** University of Birmingham, Birmingham, UK

*The 18<sup>th</sup> and 19<sup>th</sup> century temperature observations, how reliable are they?*

Øyvind **Nordli** Norwegian Meteorological Institute, Oslo, N

*Discussion*

**12:00-14:00 L u n c h**

**14:00-16:00 Focus on Asia**

Chair: Huw **Davies**

*Varahamihira, the earliest meteorologist*

Kottapalli S. **Murty** Co-ordinator of Geoarchives, INHIGEO, Nagpur, India

*Soldiers, missionaries and merchants on the road: Early meteorological observations carried out by westerners in China*

Gaston R. **Demarée** Royal Meteorological Institute, Brussels, B

*Meteorological instruments of Joseon dynasty (15th century) in Korea*

Youngsin **Chun** Meteorological Research Institute, Seoul, Korea  
Sang-woon **Jeon** Former President of the Sung-Shin University, Seoul, Korea

*The dust storm: Historical evolution of Inner Mongolia and the impacts of the climate change*

Gao **Tao** Inner Mongolia Meteorological Institute, Hohhot, Inner Mongolia, China

*Nineteenth-century East Asian climate reconstruction from the perspective of history of science*

Togo **Tsukahara** Kobe University, Kobe, Japan

*Discussion*

**16:00-16:20 C o f f e e break**

**16:20-18:00 Tools and Techniques**

Chair: Gregory **Good**

*The Chapman wind scale of 1779*

Tage **Andersson** Swedish Meteorological Society, Norrköping, S

*Clouds, sounding balloons and stratosphere: Teisserenc de Bort, a life in meteorology*

Mickaël **Fonton** University of Paris, Paris, F

*The role of weather flights in the history of meteorology*

John A. **Kington** Climatic Research Unit, University of East Anglia, Norwich, UK

*Fog, dust and rising air: Understanding cloud formation, cloud chambers, and the role of meteorology in Cambridge physics in the late 19th Century*

Richard **Staley** University of Wisconsin-Madison, USA, and Max Planck Institute for the History of Science, Berlin, D

*Discussion*

**20:00 Concert, Barocker Bibliothekssaal**

**Thursday, 8 July**

**09:00-10:40 Nineteenth Century II**

Chair: Manuel **Palomares**

*Atmospheric constitutions: A taxonomy of issues in European medical meteorology (1750-1850)*

Vladimir **Jankovic** University of Manchester, Manchester, UK

*The contribution of Alexander Buchan to the development of climatology and synoptic meteorology*

Marjory **Roy** Scottish Centre of the Royal Meteorological Society, Edinburgh, UK

*The case for weather forecasting: Victorian meteorology and the press*

Katharine **Anderson** York University, Toronto, Ontario, Canada

*Nice weather, meteors at the end of the day*

Christina H. **Barboza** Museum of Astronomy and Related Sciences, Rio de Janeiro, Brazil

*Discussion*

**10:40-11:00 Coffee break and posters**

**11:00-12:20 Early Institutions, Networks, and Observations**

Chair: Gaston **Demarée**

*The meteorological history and future perspectives in Latvia*

Dinara **Gershinkova** Latvian Hydrometeorological Agency, Riga, Latvia

*The observation of the upper troposphere in Tenerife Island during the last centuries and the mountain observatory in Izaña*

Fernando De **Ory** Nacional Institute of Meteorology, Tenerife, E

Manuel **Palomares** Nacional Institute of Meteorology, Madrid, E

*The discovery of latent heat 250 years ago*

Stefan **Emeis** Institut für Meteorologie und Klimaforschung, IFU Garmisch, D

*Discussion*

12:20-14:00 L u n c h

14:00-15:00 Particular Locales I

Chair: Luci Nunes

*Contributions by scientists of the Central Institute of Meteorology and Geodynamics in Vienna on observing, analyzing and predicting since the foundation in 1851 to 1938*

Christa **Hammerl** Zentralanstalt für Meteorologie und Geodynamik, Wien, A

*Scaling down: Mapping the “Austrian” climate between empire and republic*

Deborah **Coen** Harvard University, Cambridge, Massachusetts, USA

*Danish ice core research 1952 - 1982*

Maiken **Lolck** History of Science Department, Aarhus, DK

*Discussion*

15:20-15:40 C o f f e e b r e a k

15:40-16:40 Particular Locales II

Chair: Youngsin **Chun**

*Investigation and forecast of droughts in Brazil: A historical view*

Silvia **Figureirôa** Institute of Geosciences, State University of Campinas, Campinas, Brazil

Luci **Nunes** Institute of Geosciences, State University of Campinas, Campinas, Brazil

*Global cooling and the cold war: A chilly beginning for the United States’ Climate Analysis Center?*

Robert **Reeves** ) National Oceanic and Atmospheric Administration,

Daphne **Gemmill** ) National Weather Service,

Robert **Livezey** ) Silver Spring,

Jim **Laver** ) Maryland, USA

*Discussion*

17:45-18:00 ICHM Business Meeting

19:00 C o n f e r e n c e D i n n e r , T a s s i l o s a a l , P o l l i n g e r C a t e r i n g S e r v i c e

## F r i d a y , 9 J u l y

09:00-10:20 Pedagogical Issues

Chair: Cornelia **Lüdecke**

*How lecture notes reflect the states of science and of technology: From Vilhelm Bjerknes’s type-scripts of 1914-17 to pdf-files in 2004*

Hans **Volkert** DLR, Institut für Physik der Atmosphäre, Oberpfaffenhofen, D

Michael **Börngen** Universität Leipzig, Institut für Meteorologie, Leipzig, D

Ludwig **Weickmann** Starnberg, D

*Hann’s thermodynamic foehn theory and its presentation in meteorological textbooks in the course of time*

Petra **Seibert** Institute of Meteorology, University of Natural Resources (BOKU), Wien, A

***The didactic importance of the historical context in the teaching of climatology***

Luci H. **Nunes**                      Institute of Geosciences, State University of Campinas, Campinas, Brazil  
Ana Maria H. **Avila**                Institute of Geosciences, State University of Campinas, Campinas, Brazil

***Discussion***

**10:20-10:40    C o f f e e   b r e a k**

**10:40-11:40 “Bjerknes and beyond”**

Chair: Richard Staley

***Bjerknes “like father, like son”***

Doria B. **Grimes**                      NOAA Central Library, Silver Spring, Maryland, USA

***The world according to GARP: Scientific internationalism and the construction of global meteorology, 1961-1980***

Erik M. **Conway**                      NASA Langley Research Center, Maryland, USA

***Discussion***

**11:40-12:00    C l o s i n g   C e r e m o n y**

***Relevance of historical perspectives for current research activities***

Jutta **Graf**                                DLR, Forschungszentrum Oberpfaffenhofen, D

**Poster Presentations on permanent display:**

***POSTER 1:    The ICHM current bibliography project***

Brant **Vogel**                              New York, New York, USA

***POSTER 2:    Treasures of the NOAA central library***

Doria B. **Grimes**                      NOAA Central Library, Silver Spring, Maryland, USA

***POSTER 3:    The Ben Nevis meteorological observatory, 1883-1904***

Marjory **Roy**                              Scottish Centre, Royal Meteorological Society, Edinburgh, UK

***POSTER 4:    Reconstruction of historical severe convective storms from 25-26 May 1872***

Miloslav **Müller**                      Institute of Atmospheric Physics, Praha, CZ



Ceiling detail in the Baroque Library Hall of Polling monastery:

***The nine classical muses and ‘Scientia’ with telescope and globe***