

The Victor F. Hess Society and the European Physical Society/History of Physics group (EPS/HoP) are pleased to invite you to the second international conference on the European History of Physics of the series: *The Roots of Physics in Europe (RoPE)*:

## ***100 Years of Cosmic Rays***

The conference is held under the auspices of the first European Centre for the History of Physics: Echophysics, Schloss 1, Poellau Castle, 8225 Poellau, Austria, May 4-5, 2012

### **Symposium programme**

#### **Friday morning session, May 4, 2012**

Chair of the session: Schuster, Peter M. (Victor F. Hess Society and Echophysics; Poellau)

- 09:00–10:00 Drury, Luke (Director of the School of Cosmic Physics, Dublin; President of the Royal Irish Academy)  
*The strange discovery of Viktor Hess - one hundred years of cosmic ray studies*
- 10:00–10:30 Grandin, Karl (Royal Swedish Academy of Sciences; Stockholm)  
*The Nobel Prize to Victor Franz Hess 1936: A second look*
- 10:30–11:00 Kempa, Janusz (Warsaw University of Technology)  
*Half-century studies of cosmic rays in Lodz*
- 11:00–11:30 Coffee break
- 11:30–12:00 Panasyuk, Mikhail (Director of the Skobeltsyn Institute of Nuclear Physics of the Lomonosov Moscow State University)  
*Russian contribution in 100 years of history of cosmic ray study*
- 12:00–12:30 Usoskin, Ilya (University of Oulu)  
*The atmospheric ionization caused by cosmic rays, specifically for the altitudes of Hess's balloon flights*
- 12:30–13:00 Bauer, Siegfried (University of Graz)  
*The first cosmic ray observations on Austrian mountains*
- 13:00–14:30 Lunch break

Friday afternoon, May 4, 2012, subdivides into the conference session (14:30–17:30) and a festive programme for the conference Participants (from 17:30 onwards)

#### **Friday afternoon session, May 4, 2012**

Chair of the session: Weaire, Denis, FRS (Trinity College, Dublin)

- 14:30–15:00 Hoffmann, Dieter (Max-Planck-Institut, Berlin)  
*Werner Kolhörster (1887-1945): The pioneer of cosmic ray research in Germany*

- 15:00-15:30 Kamisheva, Ganka (Institute of Solid State Physics—BAS; Sofia)  
*Professor Elisabeth Kara-Michailova*
- 15:30–16:00 Lacki, Jan (University of Geneva)  
*From atmospheric electricity to cosmic rays: A. Gockel's pioneering investigations*
- 16:00–16:30 Coffee break
- 16:30–17:00 Kragh, Helge (University of Aarhus)  
*Cosmic rays and early physical cosmology*
- 17:00–17:30 Wolfendale, Sir Arnold (Durham University)  
*British contributions to early cosmic ray research*

### Festive Friday afternoon programme for the Participants of the conference

- 17:30–18:30 Visit of the Participants together with the Austrian Federal Minister for Science and Research Prof. Dr. Karlheinz Töchterle to the Victor F. Hess Heritage and Research Centre and to the exhibition *Radiation and Mankind* at Echophysics at Schloss Poellau  
Drinking a toast to '100 years of cosmic particles'
- 18:30 Musical intermezzi at the *Großer Freskensaal*: Brass wind quartet of Poellau
- Welcome addresses:  
Emeritus Prof. Dr. Hartmut Kahlert, Retired Rector of the Graz University of Technology, Vicepresident of the Victor F. Hess Society  
Johann Schirnhofner, Mayor of Poellau
- Introductory address:  
Dr. Peter Maria Schuster, President of the Victor F. Hess Society, Director of Echophysics
- Celebratory address:  
Prof. Dr. Karlheinz Töchterle, Austrian Federal Minister for Science and Research
- Conferring of the Extraordinary Certificates of Honour of the V. F. Hess Society
- Plenary lecture at the *Großer Freskensaal* at Schloss Poellau by Prof. Dr. Friedrich Wagner (Director Max-Planck-Institut for Plasmaphysics)  
*Possibilities and restrictions of global energy systems*  
(Introduction of the Speaker by Prof. Heinz Krenn, University of Graz, Vicepresident of the Victor F. Hess Society)
- 20:00 Dinner party at Berggasthof König, Poellauberg (shuttle coach)

## Symposium Programme, continued

### Saturday morning session, May 5, 2012

Chair of the session: Kragh, Helge (University of Aarhus)

- 09:00–09:30 Trimble, Virginia (University of California, Irvine)  
*Unsung heroines of cosmic rays (and a few heroes)*
- 09:30–10:00 Pérez-Peraza, Jorge A. (Instituto de geofísica, UNAM, Coyoacán, México)  
*Mexican Contribution to Cosmic Ray Physics*
- 10:00–10:30 Ron, José Manuel Sánchez (Real Academia Española)  
*Physics and Spanish politics: Arturo Duperier's cosmic ray research as an exile in England and his relationship with Blackett (1939–1953)*
- 10:30–11:00 Abdel-Raouf, M. Assaad (United Arab Emirates University)  
*'Cosmic-rays' role in the discovery of antiparticles: are there indications for possible existence of overlapping universe and antiuniverse?*
- 11:00–11:30 Coffee Break
- 11:30–12:00 Walter, Michael (Deutsches Elektronen-Synchrotron DESY)  
*Cosmic ray research with balloons*
- 12:00–12:30 Holmberg, Peter (University of Helsinki)  
*Ionizing radiation—concept of risk and benefit during 100 years*
- 12:30–13:00 Besser, Bruno P. (Austrian Academy of Sciences, Graz)  
*From radioactivity via cosmic rays to atmospheric electricity: Institute for Radium Research, Vienna*
- 13:00–13:30 Kutschera, Walter (University of Vienna)  
*Radiocarbon, the most versatile product of cosmic rays*
- 14:00–15:30 Board meeting of the Austrian Physical Society
- 14:00–15:00 2012 annual board meeting of the EPS/HoP group

Saturday afternoon, May 5, 2012, includes another occasion, for Participants only, to visit the Echophysics exhibition (15:30–17:00) and the Grand Opening programme, also for the general public (from 17:00 onwards, see below for more details).

Except for the plenary public lecture, the festive programme is held in German & English.

### Saturday afternoon, May 5, 2012

- 14:00 – 17:00 Sale of the special postage stamp, issued by the Österreichische Post AG to commemorate the centenary of Victor F. Hess' discovery of the cosmic rays, with the commemorative postal stamp of the issue day, at the special postoffice at the *Refectorium* hall, Schloss Poellau
- 15:30 – 17:00 For Participants only: Visit to the Victor F. Hess Heritage and Research Centre and to the exhibition *Radiation and Mankind* at Echophysics

(The non-German speaking Participants who wish to prolonge their visit at the Echophysics exhibition are welcome to do so until ca. 19:00)

17:00 Grand opening ceremonies at the *Großer Freskensaal* at Schloss Poellau  
(for Participants and the general public)

Musical intermezzi: Wood wind ensemble of the Poellau Music Classes

Welcome address:

Emeritus Prof. Dr. Hartmut Kahlert, Retired Rector of the Graz University of Technology, Vicepresident of the Victor F. Hess Society

Introductory address:

Dr. Peter Maria Schuster, President of the Victor F. Hess Society, Director of Echophysics

Addresses:

Johann Schirnhofer, Mayor of Poellau

Prof. Dr. Helmut Denk, President of the Austrian Academy of Sciences

Prof. Dr. Erich Gornik, President of the Austrian Physical Society

Guests of honour

Presentation of the special 'Victor F. Hess' postage stamp issued by the Österreichische Post AG on the occasion of the jubilee centenary, given by Günter Schmied, Head of product management, Austrian Philately

18:00 Plenary public lecture (in German) by  
Prof. Dr. Erwin O. Flückiger/Bern  
*100 Jahre Kosmische Strahlung – eine Abenteuergeschichte mit Fortsetzung*  
(Introduction of the Speaker by Prof. Heinz Krenn, University of Graz,  
Vicepresident of the Victor F. Hess Society)

ca. 19:00 A few words of explanation about: *Preparing a hot-air balloon for take-off*  
By Josef Starkbaum, world champion and most successful Austrian balloonist  
and Dr. Alfred Eitel, Styrian balloonist and scientist

Finale

in front of the Poellau Cathedral

Buffet

Staging a hot-air balloon take-off

Styrian music duo of Poellau

(Under adverse weather conditions the buffet will be served in the foyer space that precedes the *Refectorium* hall at Schloss Pöllau.)