

European Geosciences Union General Assembly 2009



Information & Schedules

Vienna | 19 – 24 April 2009

BMW_F

Austria Center Vienna (ACV)

Tel: +43-1-260 69-0

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<p>Basement (Blue Level)</p>	<p>Seating (LAN Plug & Play) Halls X and Y, Foyer D, Foyer I/K</p> <p>Internet Terminals & LAN (Plug & Play) Hall Y</p> <p>Refreshments Café Vienna – Hall X Snack Bar – Foyer D Water Fountains</p>	<p>Poster Areas Halls X and Y with Coffee Points</p>	<p>Rooms 1, 2, 3, 4, 5, 6, 7, 8, 9, D</p> <p>Splinter Meeting Rooms SM1 & SM2</p>
<p>Ground Floor (Yellow Level)</p>	<p>Seating (LAN Plug & Play) Foyer E</p> <p>Internet Terminals Hall Z (from Wednesday)</p> <p>Refreshments Café Melange – Entrance Bistro – Foyer E Water Fountains</p>	<p>Information Desks EGU Info Desk, Hotel Reservation, Airport Service</p> <p>Exhibition Commercial and Research Exhibition</p> <p>Message Boards & Job Posting</p> <p>Registration Hall Z</p>	<p>Rooms 10, 11, 12, 13, 14, 15, 16, 17</p> <p>Splinter Meeting Rooms SM3 & SM4</p> <p>Rehearsal Rooms Foyer E</p> <p>Press Centre Foyer F</p>
<p>First Floor (Green Level)</p>	<p>Seating (LAN Plug & Play) Gallery</p> <p>Refreshments Snack Bar Water Fountains</p>	<p>Poster Area BG Area</p> <p>Exhibition Commercial and Research Exhibition</p>	<p>Rooms 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30</p> <p>Child Care & Kids' Discovery Workshop</p>
<p>Second Floor (Red Level)</p>	<p>Seating (LAN Plug & Play) Foyers A, B, C</p> <p>Refreshments Snack Bar – Foyer A Water Fountains</p>	<p>Poster Area Hall A with Coffee Points</p>	<p>Rooms 31, 32, 33, 34, 35, 36, 37</p> <p>Splinter Meeting Rooms SM5 & SM6</p>
<p>Third Floor (Purple Level)</p>	<p>EGU Council</p>		<p>Rooms 38, 39, 40, 41</p>

General Information

Location and Conference Address

The General Assembly of the European Geosciences Union (EGU) is held at the Austria Center Vienna (ACV) in Vienna, Austria, from 19 – 24 April 2009. The assembly is open to the scientists of all nations.

Austria Center Vienna
 Bruno-Kreisisky-Platz 1
 1220 Vienna
 Austria
 Tel: +43-1-260 69-0
 Fax: +43-1-260 69-303

The congress centre is located next to the station "Kaisermühlen/Vienna Int. Centre" of the subway U1 running from the city centre (Stephansplatz) to Leopoldau.

The entire congress centre is fully accessible for wheel-chairs.

Official Language

The official language of the General Assembly is English. Simultaneous interpretation is not provided. It is therefore expected that authors are able to present their research more or less fluently in the English language.

Rules of Conduct

- Smoking is prohibited in the entire congress centre. Outside, on the forecourt of the main entrance are areas designated for smokers.
- It is prohibited to copy any presentation from the notebooks in the lecture rooms.
- It is prohibited to take photos of any scientific material at the conference.

Guest Registration

Guests, partners, or accompanying persons are invited to register on-site at the "accompanying person" or "daily ticket" rates at the On-site Registration in Hall Z.

Programme

The scientific programme of the General Assembly includes Union Symposia, Oral & Poster Sessions on disciplinary and interdisciplinary topics covering the full spectrum of the geosciences and the space and planetary sciences, Educational & Outreach Symposia, EGU Short Courses, Key Note & Medal Lectures, and Townhall & Splinter Meetings.

The up-to-date programme of each event is posted in front of the respective lecture room or in the respective poster area.

Services

General Service Points

Entrance Hall – Ground Floor (Yellow Level)

- **EGU Info Desk:** General Contact, Grants, Lost & Found, Printing & Photocopies, Facility Desk for Lecture Rooms
- **Hotel & Restaurant Reservation, Airport Service:** Mondial hotel reservation and travel assistance
- **Personal Message and Open Announcement Board**
- **Wardrobes** are located behind the Café Melange (Entrance)
- **Accompanying Persons' Meeting Point** in Foyer E

Seating Areas are reserved on the Basement (Blue Level), in the poster area Halls X/Y as well as in Foyer D and Foyer I/K, on the Ground Floor (Yellow Level) in Foyer E, on the First Floor (Green Level) on the Gallery, and on the Second Floor (Red Level) in Foyers A, B and C.

Rehearsal is organized in rooms Rehearsal 1 and Rehearsal 2 in Foyer E – Ground Floor (Yellow Level).

Internet, WLAN & LAN

- **Internet** terminals are located on the Basement (Blue Level) in Hall Y and on the Ground Floor (Yellow Level) in Hall Z (from Wednesday).
- **WLAN** is available throughout the entire congress centre; power sockets are available in the seating areas in various foyers.
- **LAN Plug & Play** is available on the Basement (Blue Level) in Hall Y next to the Internet terminals as well as in the seating areas.

Exhibition, Media & Job Posting

- **Research & Commercial Exhibition:** Entrance Hall – Ground Floor (Yellow Level) & Gallery – First Floor (Green Level)
- **Press Centre:** Foyer F – Ground Floor (Yellow Level)
- **Job Posting:** Entrance Hall – Ground Floor (Yellow Level)

Refreshments & Lunch

- **Coffee and Lunch Breaks** are scheduled from Monday – Friday, 10:00–10:30 and 15:00–15:30 as well as 12:00–13:30.
- **Complimentary Refreshments** are only served during the coffee breaks and exclusively in the poster areas Halls X/Y and A (Coffee Points).
- **Refreshments, Snacks & Lunch** are offered on a self-payment basis on each floor.
 - Basement (Blue Level), Hall X – Café Vienna
 - Basement (Blue Level), Foyer D – Snack Bar
 - Ground Floor (Yellow Level), Entrance – Café Melange
 - Ground Floor (Yellow Level), Foyer E – Bistro
 - First Floor (Green Level) – Snack Bars
 - Second Floor (Red Level), Foyer A – Snack Bars
- **Water Fountains** are located on all floors and are marked.

Conference Hours and Special Events

Registration (Hall Z)

Sunday, 19 April 2009, 12:00–20:00
 Monday – Thursday, 20 – 23 April 2009, 08:00–19:00
 Friday, 24 April 2009, 08:00–13:00

Opening Reception

Sunday, 19 April 2009, Gallery – First Floor (Green Level), 18:30–20:30

Oral and Poster Sessions

Monday – Friday, 20 – 24 April 2009

In general, the meeting days are cut into five time blocks each with one and a half hour. Concerning the Oral & Poster Block V, 17:30–19:00, there are two options: within **option 1** an additional extensive public poster viewing is scheduled to enhance the visibility of poster presentations, whereas within **option 2** this time block is reserved for oral and poster presentations like within the time blocks 1–4.

Posters may be on display daily from 08:00–19:30 (Display Time). After 19:30 the remaining posters will be taken down by the conference staff, and they will be marked by the day and their poster number and stored in the poster area in corresponding boxes marked "Taken Down Posters". During the poster sessions scheduled in parallel to the oral sessions the authors are kindly asked to stand near their posters for interview and discussion (Author in Attendance).

Oral & Poster Block I	08:30–10:00
Break I	10:00–10:30
Oral & Poster Block II	10:30–12:00
Lunch Break	12:00–13:30
Lunch Block 1 (EBM, SPM, UM only)	12:00–13:30
Lunch Block 2 (DBM only)	12:15–13:15
Oral & Poster Block III	13:30–15:00
Break II	15:00–15:30
Oral & Poster Block IV	15:30–17:00
Break III	17:00–17:30
Poster viewing only	17:30–19:00 (Option 1)
Oral & Poster Block V	17:30–19:00 (Option 2)
Block VI (ML, TM only)	19:00–20:00

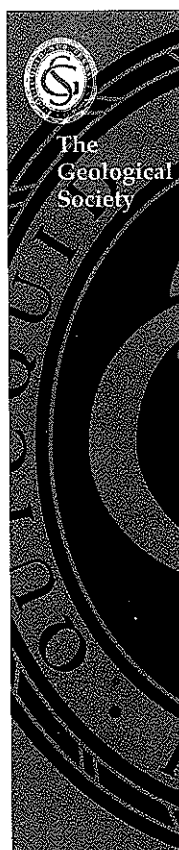
Authors in attendance:

PI:	08:30–10:00
PII:	10:30–12:00
PIII:	13:30–15:00
PIV:	15:30–17:00
PV:	17:00–19:00

Plenary Meeting

Monday, 20 April 2009, Room D, 12:15–13:15

All EGU members paid-up for 2009 are invited to participate in this event to discuss the reports of the President and the Treasurer of the Union.



The Geological Society of London received its Royal Charter (1825) for "investigating the mineral structure of the Earth" and is Britain's national geological society. A learned society and professional body, it is the UK Chartering authority for geoscience. The Society has a membership of 9100.

To find out about joining the Society and benefiting from substantial discounts on publications of GSL and other societies worldwide **visit our stand (No 7) at the EGU General Assembly. We will be offering generous discounts to delegates during the conference.**

Conveners' Reception

Friday, 24 April 2009, 19:30–21:00, Meeting Point: Basement (Blue Level), in front of Room 7

Council Meetings

Sunday, 19 April 2009, Room 40, 13:00–18:00
Friday, 24 April 2009, Room 40, 17:30–19:00

EONS Meetings

Sunday, 19 April 2009, Room 40, 09:00–12:00
Friday, 24 April 2009, Room 39, 11:00–14:00

Publication Committee Meetings


Tuesday, 21 April 2009, Room 40, 08:00–10:00
Friday, 24 April 2009, Room 40, 12:00–13:30

Finance Committee Meeting

Friday, 24 April 2009, Room 41, 14:00–16:00

Child Care & Kids' Discovery Workshop

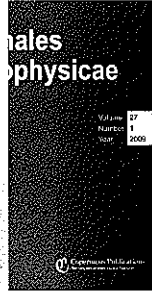
Child Care & the Kids' Discovery Workshop are organized in 2 separate areas on the First Floor (Green Level). Please contact the EGU Information Desk for arrangements.

 Medals presented on behalf of the European Geosciences Union 	Medal	Recipient	Presented
Monday, 20 April			
	Sergey Soloviev Medal	Jochen Zschau	Room 6, 13:45
	Julius Bartels Medal	Jean-André Sauvaud	Room 11, 15:30
Tuesday, 21 April			
	Philippe Duchaufour Medal	Fiorenzo Cesare Ugolini	Room 24, 11:15
	Hannes Alfvén Medal	Lev Zelenyi for Albert A. Galeev	Room 5, 13:30
	Vilhelm Bjerknes Medal	J. Ray Bates	Room 28, 13:30
	Robert Wilhelm Bunsen Medal	Jonathan F. Stebbins	Room 23, 15:30
	Stephan Mueller Medal	Stefan M. Schmid	Room 16, 17:30
	Ralph Alger Bagnold Medal	Gerard Govers	Room 19, 17:45
	John Dalton Medal	Jeffrey J. McDonnell	Room 31, 18:30 (incl. Introduction)
	Augustus Love Medal	Ulrich R. Christensen	Room 17, 19:00 (incl. Introduction)
	Vening Meinesz Medal	Susanna Zerbini	Room 26, 19:00 (incl. Introduction)
	Louis Néel Medal	Yves Guéguen	Room 33, 19:00 (incl. Introduction)
	Jean Baptiste Lamarck Medal	Maurice E. Tucker	Room 36, 19:00 (incl. Introduction)
	Louis Agassiz Medal	Eric W. Wolff	Room 16, 19:15
	Christiaan Huygens Medal	Valery Korepanov	Room 4, 19:15 (incl. Introduction)
Wednesday, 22 April			
	Milutin Milankovic Medal	Pascale Braconnot	Room 13, 10:30
	Alexander von Humboldt Medal	Rafael Navarro-González	Room D, 16:45
	Alfred Wegener Medal	Lennart Bengtsson	Room D, 17:30
	Arthur Holmes Medal	David Gubbins	Room D, 18:15
Thursday, 23 April			
	Fridtjof Nansen Medal	Jochem Marotzke	Room D, 10:30
	Hans Oeschger Medal	Thomas Stocker	Room 13, 10:30
	Lewis Frey Richardson Medal	Stéphan Fauve	Room 15, 13:30 (incl. Introduction)
	Plinius Medal	Helen Crowley	Room 6, 15:45
	Petrus Peregrinus Medal	Christopher A. Jones	Room 33, 17:30 (incl. Introduction)
	Petrus Peregrinus Medal	Eigil Friis-Christensen	Room 33, 18:30 (incl. Introduction)
	Henry Darcy Medal	Demetris Koutsoyiannis	Room 31, 18:30 (incl. Introduction)



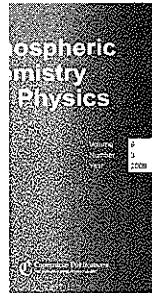
Advances in Geosciences (ADGEO)

- Peer-Reviewed
- Special Publications and Proceedings



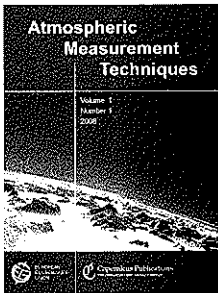
Annales Geophysicae (ANGEO)

- Peer-Reviewed
- Immediate Publication
- Solar Terrestrial Physics
- Impact Factor 2008: 1.427



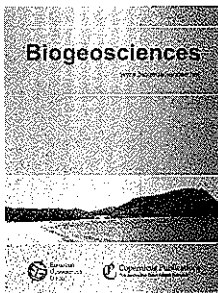
Atmospheric Chemistry and Physics (ACP)

- Public Peer-Review & Interactive Public Discussion
- 500 papers published in 2008
- Impact Factor 2008: 4.865



Atmospheric Measurement Techniques (AMT)

- Public Peer-Review & Interactive Public Discussion
- Sister Journal of ACP



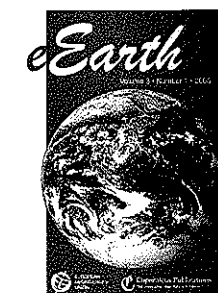
Biogeosciences (BG)

- Public Peer-Review & Interactive Public Discussion
- over 130 papers published in 2008
- Impact Factor 2008: 2.813



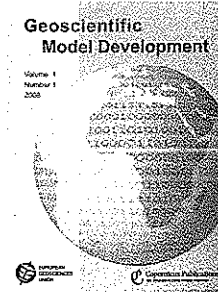
Climate of the Past (CP)

- Public Peer-Review & Interactive Public Discussion
- Impact Factor 2008: 1.450
- Climate History of the Earth



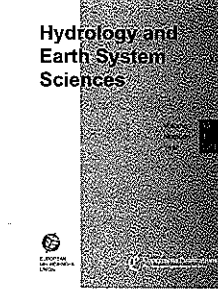
eEarth (eE)

- Public Peer-Review & Interactive Public Discussion
- Focus on Solid Earth Geosciences



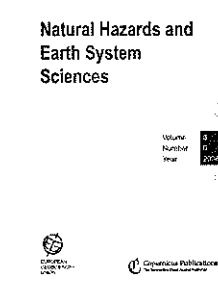
Geoscientific Model Development (GMD)

- Public Peer-Review & Interactive Public Discussion
- Description, Development and Evaluation of Numerical Models of the Earth System



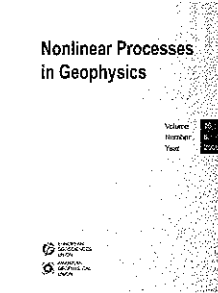
Hydrology and Earth System Sciences (HESS)

- Public Peer-Review & Interactive Public Discussion
- over 100 papers published in 2008
- Impact Factor 2008: 2.270



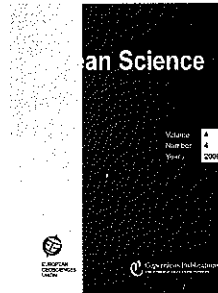
Natural Hazards and Earth System Sciences (NHES)

- Peer-Reviewed
- Immediate Publication
- Impact Factor 2008: 1.021



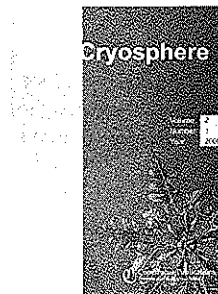
Nonlinear Processes in Geophysics (NPG)

- Peer-Reviewed
- Immediate Publication
- Impact Factor 2008: 1.314



Ocean Science (OS)

- Public Peer-Review & Interactive Public Discussion
- Experimental, Theoretical and Laboratory Papers



The Cryosphere (TC)

- Public Peer-Review & Interactive Public Discussion
- Frozen Water and Ground on Earth and on other Planetary Bodies



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European Geosciences Union



Union Award Presentations and Medal Lectures

Wednesday, 22 April, 13:30–20:00, Room D

13:30 – Welcome / Introduction by G. Ganssen / T. Pulkkinen

13:35 – *Roland Schlich & Claude Lorius – 365 days under Antarctic Ice*
A Djamel Tahi film, produced by Terra Incognita in co-production with CNRS

15:30 – Union Medal & Award Ceremony

16:15 – *A. Fred Spilhaus, Jr. – Boundless Science*

16:45 – The Alexander von Humboldt Medal Lecture will be presented by
Rafael Navarro-González – Mars-Like Soils in the Atacama Desert, Chile

The Viking missions showed the martian soil to be lifeless and depleted in organic material and indicated the presence of one or more reactive oxidants. The presence of Mars-like soils have been documented in the extreme arid region of the Atacama Desert. The Atacama desert is one of the driest and oldest deserts of the world that extends across 1000 km from 30°S to 20°S along the Pacific coast of South America. Geological and soil mineralogical evidence suggest that extreme arid conditions have persisted in this desert for about 10-15 Myrs. The surface soil from this region has organic species only at trace levels and extremely low levels of culturable bacteria. Some samples from the extreme arid region were tested for DNA and none was recovered. Incubation experiments, patterned after the Viking labeled-release experiment but with separate biological and nonbiological isomers, show active decomposition of organic species in these soils by nonbiological processes. The Atacama Desert is now a valuable testing ground by NASA and ESA for instruments and experiments designed for future Mars missions for the search of life.

17:30 – The Alfred Wegener Medal Lecture will be presented by
Lennart Bengtsson – Extra-tropical cyclone and climate

Extra-tropical cyclones play a key role in the climate system in effectively transporting heat, water vapour and momentum towards higher latitudes. The main energy source of extra-tropical cyclones is the available potential energy of the atmosphere first recognized by Max Margules in the beginning of the last century but clarified much later in a series of papers by Edward Lorenz. With the assumption that the initial state is well determined present weather prediction models are able to predict the development of extra-tropical systems several days in advance and this is one of the reasons to the large improvement in weather forecasting in recent years. Whilst our knowledge of extra-tropical cyclones has continued to improve several questions requires a better scientific understanding. One of these is the mutual interaction between transient cyclones and the large-scale quasi-stationary pattern of the atmospheric circulation such as blocking. Another important issue is the possible change in extra-tropical cyclones in a warmer climate. This might come about through changes in the storm tracks or in changes in extreme cyclones. In my presentation I will present some recent results based on the assessment of storm tracks and the evolution of cyclones in high-resolution global models in the present and future climate using a Lagrangean approach.

18:15 – The Arthur Holmes Medal Lecture will be presented by
David Gubbins – Buoyancy in Earth's core and possible melting of the inner core

The geodynamo is driven by cooling controlled by the mantle. This causes freezing from the bottom up, leading to slow growth of the inner core and release of light material near the inner core boundary. This chemical buoyancy is the main driver for convection in the liquid core. Mantle convection produces large lateral variations in heat flow across the core-mantle boundary (CMB) that influence core convection, as can be seen in features of the geomagnetic field that correlate with lower mantle structure. Geodynamo simulations confirm the validity of the mechanism connecting heat flow variations with geomagnetic features but require weakened convection in the uppermost core. Convection could be suppressed there by a steepened adiabatic gradient or, more strongly, by slow dissolution of oxygen from the mantle subsequent to core formation (Hernlund, personal communication). The layer cannot be thicker than about 100 km or it would suppress some secular variation features, including the formation of reverse flux patches in the southern hemisphere that has occurred in the last 150 years. Seismology has revealed another stratified layer, about 150 km thick, at the bottom of the liquid core. Geodynamo simulations also reveal narrow downwelling jets contrasting with broad upwellings. Furthermore, lateral heat flux variations at the CMB create even larger lateral heat flux variations around the inner core boundary, in rough proportion to the difference in surface areas of the two boundaries. Numerical estimates suggest the heat flux variations may be so large as to make the inner core melt in places; in fact narrow downwelling and broad upwelling could mean the inner core is melting over the greater half of its surface while still losing heat overall. Inner core melting has interesting consequences. First, it can explain the stratified layer at the bottom of the core by releasing a heavy component into the liquid that fails to remix beyond the 150-km layer above the ICB. Secondly, provided the inner core is gravitationally locked to the mantle and is not rotating, it can easily explain any lateral variations in seismic properties near the surface, with high Q_s Vs occurring where melting has uncovered compressed inner core material and low Q_s Vs occurring where narrow downwelling jets cause freezing and deposition of loosely consolidated mush. Finally, allowing for large lateral variations in heat flux reduces significantly the heat loss required to drive the geodynamo because the adiabatic gradient must only be exceeded in one place to allow convection to mix the entire core: the mean temperature gradient can be subadiabatic yet still allow the whole core to convect. This increases estimates of inner core age and decreases the fraction of geological time in which the dynamo is driven by heat alone.

Geoscientific Model Development

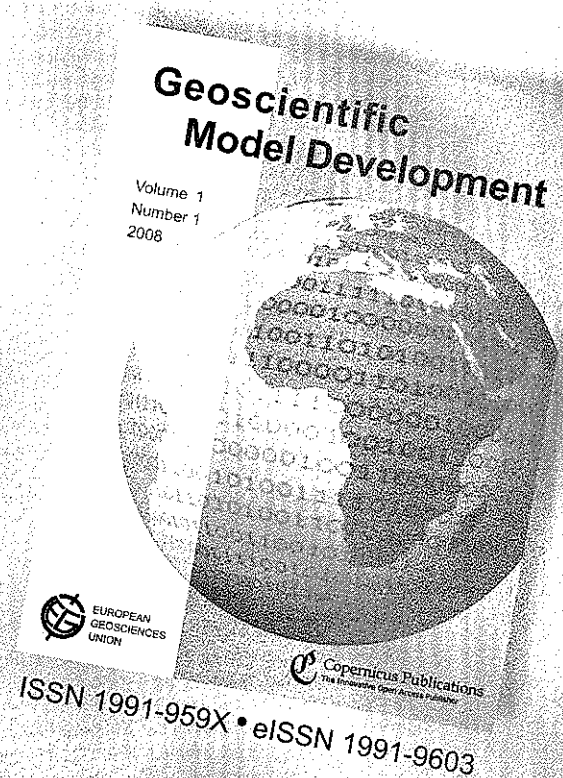
Interactive Open Access Journal

- Public Peer-Review
- Interactive Public Discussion
- Immediate Article Publication
- Free Online Access
- Full Alert Service
- Author Keeps Copyright

Aims and Scope

Geoscientific Model Development (GMD) is an international scientific journal dedicated to the publication and public discussion of the description, development and evaluation of numerical models of the Earth System and its components. Manuscript types considered for peer-reviewed publication are:

- Geoscientific model descriptions, from box models to GCMs;
- Development and Technical papers, describing development such as new parameterisations or technical aspects of running models such as the reproducibility of results;
- Papers describing new standard experiments for assessing model performance, or novel ways of comparing model results with observational data;
- Model intercomparison descriptions, including experimental details and project protocols.



www.geoscientific-model-development.net



Journal of the
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Medal Lectures**Monday, 20 April 2009***Sergey Soloviev Medal***J. Zschau**

Meeting the Challenge of Earthquake Risk Globalisation:
Towards the Global Earthquake Model GEM
Room 6, 13:45–14:30

*Julius Bartels Medal Lecture***J.-A. Sauvaud**

Global acceleration processes of solar and terrestrial particles in the Earth's magnetosphere
Room 11, 15:30–16:15

Tuesday, 21 April 2009*Outstanding Young Scientist Lecture***A. P. Weigel, M. A. Liniger, and C. Appenzeller**

From climate predictability to end user applications: on the route to more reliable seasonal ensemble forecasts
Room 13, 10:30–11:15

*Philippe Duchaufour Medal Lecture***F. C. Ugolini**

A scientist interested in soils
Room 24, 11:15–12:00

*Hannes Alfvén Medal Lecture***L. Zelenyi and A. Galeev**

Metastability of collisionless current sheets
(on behalf of A. Galeev)
Room 5, 13:30–14:15

*Vilhelm Bjerknes Medal Lecture***J. R. Bates**

Climate Feedbacks: Some Conceptual and Physical Issues
Room 28, 13:30–14:15

*Robert Wilhelm Bunsen***J. F. Stebbins**

Pressure and temperature effects on oxide melt structure: progress and prognoses
Room 23, 15:30–16:15

*Stephan Mueller Medal Lecture***S. M. Schmid**

Anatomy and growth of a mountain belt: a look at the Alps from the earth's surface down into the mantle
Room 16, 17:30–18:15

*Ralph Alger Bagnold Medal Lecture***G. Govers**

Agricultural soil erosion and geomorphology: is there common ground?
Room 19, 17:45–18:30

*John Dalton Medal Lecture***J. J. McDonnell**

Where does water go when it rains? Conceptualizing runoff processes in headwater catchments
Room 31, 18:30–19:30 (incl. Introduction)

*Louis Agassiz Medal Lecture***E. W. Wolff**

Ice – not just H₂O
Room 16, 19:15–20:00

*Jean Baptiste Lamarck Medal Lecture***M. E. Tucker**

Limestones: the love of my life – sun, sea and cycles
Room 36, 19:00–20:00 (incl. Introduction)

*Augustus Love Medal Lecture***U. R. Christensen**

Convection and magnetic field generation in the interior of planets
Room 17, 19:00–20:00 (incl. Introduction)

*Vening Meinesz Medal Lecture***S. Zerbini**

Space Geodesy and the 4-D challenge of the Earth System Science
Room 26, 19:00–20:00 (incl. Introduction)

*Louis Néel Medal Lecture***Y. Guéguen**

Understanding porous rocks (Louis Néel Medal Lecture)
Room 33, 19:00–20:00 (incl. Introduction)

*Christiaan Huygens Medal Lecture***V. Korepanov**

Magnetometers for Geoscience
Room 4, 19:15–20:15 (incl. Introduction)

Wednesday, 22 April 2009*Milutin Milankovic Medal Lecture***P. Braconnot**

Seasonal and interannual variations of the tropical hydrological cycle in response to insolation changes and climate feedbacks
Room 13, 10:30–11:15

*Outstanding Young Scientist Lecture***J. Liu and H. Yang**

The impacts of climate change on irrigation demand of major crops in China
Room 32, 15:30–16:00

*Alexander von Humboldt Medal Lecture***R. Navarro-Gonzalez**

Mars-Like Soils in the Atacama Desert, Chile
Room D, 16:45–17:30

Atmospheric Measurement Techniques

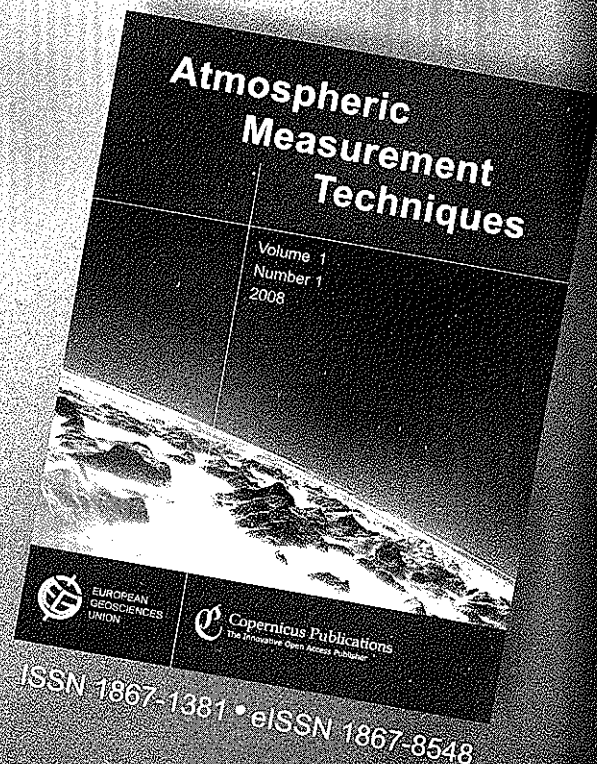
Interactive Open Access Journal

Public Discussion
Article Publication
Open Access

Aims and Scope

Atmospheric Measurement Techniques (AMT) is an international scientific journal dedicated to the publication and discussion of advances in remote sensing, in-situ and laboratory measurement techniques for the constituents and properties of the Earth's atmosphere.

The main subject areas comprise the development, intercomparison and validation of measurement instruments and techniques of data processing and information retrieval for gases, aerosols, and clouds. The manuscript types considered for peer-reviewed publication are research articles, review articles, and commentaries.



www.atmospheric-measurement-techniques.eu



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*Alfred Wegener Medal Lecture***L. Bengtsson**Extra-tropical cyclone and climate
Room D, 17:30–18:15*Arthur Holmes Medal Lecture***D. Gubbins**Buoyancy in Earth's core and possible melting of the inner core
Room D, 18:15–19:00**Thursday, 23 April 2009***Outstanding Young Scientist Lecture***J. W. H. Weijers**Branched tetraether membrane lipids: A versatile group of molecular fossils as testimony of past climate change
Room 22, 10:30–11:00*Fridtjof Nansen Medal Lecture***J. Marotzke**TBD
Room D, 10:30–11:15*Hans Oeschger Medal Lecture***T. Stocker**From Abrupt Change to the Future
Room 13, 10:30–11:15*Lewis Fry Richardson Medal Lecture***S. Fauve**Magnetic field reversals: the geodynamo, laboratory experiments and models
Room 15, 13:30–14:20 (incl. Introduction)*Plinius Medal Lecture***H. Crowley**The Challenges in Earthquake Loss Modelling at Urban and Regional Levels
Room 6, 15:45–16:30*Petrus Peregrinus Medal Lecture***C.A. Jones**From Petrus Peregrinus to the the supercomputer: the story of the geodynamo
Room 33, 17:30–18:30 (incl. Introduction)*Petrus Peregrinus Medal Lecture***E. Friis-Christensen**The Ørsted Satellite in the International Decade of Geopotential Field Research
Room 33, 18:30–19:30 (incl. Introduction)*Henry Darcy Medal Lecture***D. Koutsoyiannis**A random walk on water
Room 31, 18:30–19:30 (incl. Introduction)**Key Note Lectures****Wednesday, 22 April 2009****KL1** C. F. Gauss Lecture of the Deutsche Geophysikalische Gesellschaft (DGG)Contact: Yaramanci, U., ugur.yaramanci@gga-hannover.de
Room 10, 19:00–20:00**KL2** Presentation of the Georg Wüst MedalContact: Rhein, M., mrhein@physik.uni-bremen.de
Room 4, 19:00–20:00**European Geosciences Union****Outstanding Young Scientists Awards****Andreas Philipp Weigel***From climate predictability to end user applications: on the route to more reliable seasonal ensemble forecasts*

Room 13, Tuesday, 21 April, 10:30

Junguo Liu*The impacts of climate change on irrigation demand of major crops in China*

Room 32, Wednesday, 22 April, 15:30

Johan W. H. Weijers*Branched tetraether membrane lipids: A versatile group of molecular fossils as testimony of past climate change*

Room 22, Thursday, 23 April, 10:30

Annales Geophysicae

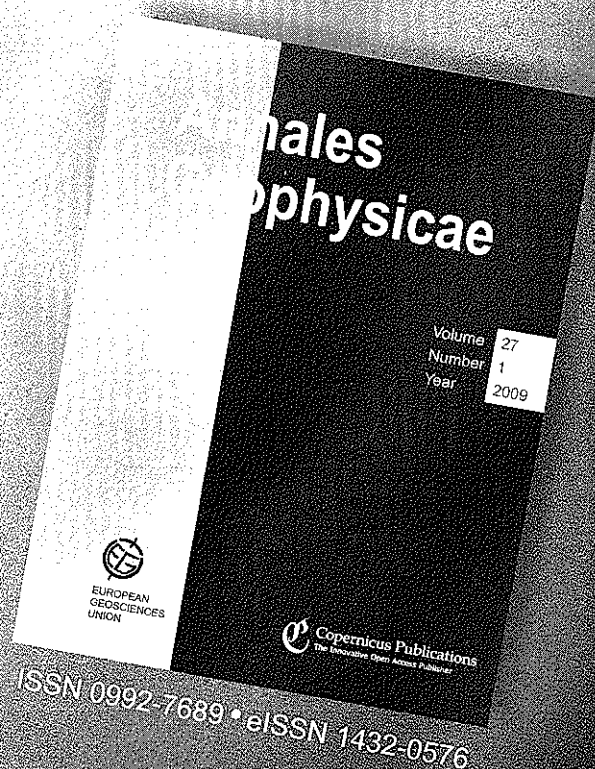
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Townhall Meetings

Wednesday, 22 April 2009

TM1 EPOS (European Plate Observing System)
Contact: Cocco, M., cocco@ingv.it
Room 15, 19:00–20:00

Thursday, 23 April 2009

TM2 Joint IODP ICDP Townhall Meeting
Contact: Mevel, C., mevel@ipgp.jussieu.fr
Room 1, 19:00–20:00

TM3 Earth and Space Sciences Informatics
Contact: Nativi, S., nativi@imaa.cnr.it
Room 7, 19:00–20:00

EGU Great Debate

Monday, 20 April 2009, Room 28, 17:30

GB1 Planetary dynamics and solar activity have a role in climate change and geodynamics? – A debate dedicated to the memory of Rhodes W. Fairbridge
Contact: S. Duhau, silvia.duhau@gmail.com;
K. Georgieva, kgeorg@bas.bg; and
R. Mackey, richard.mackey@anao.gov.au

Short Courses

Monday, 20 April 2009 – Room SM2

SC2 Stable Isotopes and Calibration, Standards, Isotopic Scales and Traceability
Contact: De Groot, P., pier.de.groot@telenet.be
08:30–12:00

SC1 Principles of laser-based isotope ratio measurements (sponsored by: Aerodyne Research Inc, Picarro Inc., and Los Gatos Research)
Contact: Kerstel, E., e.r.t.kerstel@rug.nl
13:30–17:00

SC3 How to write (and publish) a scientific paper in hydrology
Contact: Laio, F., francesco.laio@polito.it
17:30–19:00

Tuesday, 21 April 2009 – Room D

SC8 Film entitled "A Sea Change: Imagine a world without fish"
Contact: Alston, A., angela@aseachange.net
12:15–13:15

Wednesday, 22 April 2009 – Room SM1

SC6 How to Write a Competitive Proposal for Framework 7
Contact: McCarthy, S., sean.mccarthy@hyperion.ie
13:30–15:00

SC4 Meet the expert in hydrology - Round tables among young and established scientists
Contact: Freer, J., jim.freer@bristol.ac.uk
17:30–19:00

Thursday, 23 April 2009 – Room SM2


SC7 How, when, and why to submit an IUPAC (International Union of Pure and Applied Chemistry) project proposal
Contact: Coplen, T., tbcoplen@usgs.gov
10:30–12:00

SC5 Application of Inductively Coupled Plasma Mass Spectrometry (ICP-MS) in elemental and isotope geoanalysis
Contact: Brenner, I. B., brenner@cc.huji.ac.il
13:30–17:00

EAG Social Event

The European Association for Geochemistry invites all geochemists attending the EGU2009 in Vienna for a social event taking place in the lounge in front of room 27, on Wednesday, 22 April from 19:00–20:00.



Please make sure to stop by to meet other fellow geochemists.



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Booth 36 EGU 2009

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4th C.F. Gauss-Lecture (KL1):

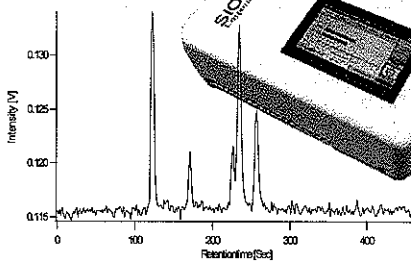
**„Switching the Light on in the Subseismic Space:
from Reflection Seismics to Deformation Prediction“**

by C.M. Krawczyk
Leibniz-Institute for Applied Geophysics (LIAG),
Hannover/Germany

Date: Wednesday, 22 April 2009, 19:00-20:00
Room 10, Ground Floor Yellow Level (OE)

Please meet us at 18:00,
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Division Business Meetings

Tuesday, 21 April 2009

DBM3 Division Business Meeting for Climate: Past, Present & Future (CL)
Room 13, 12:15–13:15

DBM6 Division Business Meeting for Earth & Space Science Informatics (ESSI)
Room 7, 12:15–13:15

DBM9 Division Business Meeting for Geodynamics (GD)
Room 17, 12:15–13:15

DBM18 Division Business Meeting for Seismology (SM)
Room 4, 12:15–13:15

Wednesday, 22 April 2009

DBM8 Division Business Meeting for Geodesy (G)
Room 26, 12:15–13:15

DBM10 Division Business Meeting for Geomorphology (GM)
Room 19, 12:15–13:15

DBM12 Division Business Meeting for Hydrological Sciences (HS)
Room 31, 12:15–13:15

DBM15 Division Business Meeting for Nonlinear Processes in Geosciences (NP)
Room 15, 12:15–13:15

DBM17 Division Business Meeting for Planetary and Solar System Sciences (PS)
Room 16, 12:15–13:15

DBM21 Division Business Meeting for Stratigraphy, Sedimentology and Palaeontology (SSP)
Room 36, 12:15–13:15

DBM22 Division Meeting for Tectonics and Structural Geology (TS)
Room 5, 12:15–13:15

Thursday, 23 April 2009

DBM1 Division Business Meeting for Atmospheric Sciences (AS)
Room 10, 12:15–13:15

DBM2 Division Business Meeting for Biogeosciences (BG)
Room 21, 12:15–13:15

DBM4 Division Business Meeting for Cryospheric Sciences (CR)
Room 20, 12:15–13:15

DBM7 Division Business Meeting for Geochemistry, Mineralogy, Petrology & Volcanology (GMPV)
Room 23, 12:15–13:15

DBM11 Division Business Meeting for Geophysical Instrumentation (GI)
Room 7, 12:15–13:15

DBM13 Division Business Meeting for Magnetism, Palaeomagnetism, Rock Physics & Geomaterials (MPRG)
Room 37, 12:15–13:15

DBM14 Division Business Meeting for Natural Hazards (NH)
Room 29, 12:15–13:15

DBM16 Division Business Meeting for Ocean Sciences (OS)
Room 1, 12:15–13:15

DBM19 Division Business Meeting for Soil System Sciences (SSS)
Room 25, 12:15–13:15

DBM20 Division Business Meeting for Solar-Terrestrial Sciences (ST)
Room 16, 12:15–13:15

Friday, 24 April 2009

DBM5 Division Business Meeting for Energy, Resources and the Environment (ERE)
Room 2, 12:15–13:15

Editorial Board Meetings

Tuesday, 21 April 2009

EBM1 Editorial Board Meeting of Atmospheric Chemistry and Physics
Room 40, 12:00–13:30

EBM2 Editorial Board Meeting of Annales Geophys.
Room 41, 12:00–13:30

EBM9 Editorial Board Meeting of Nonlinear Processes in Geophysics
Room 39, 12:00–13:30

EBM11 Editorial Board Meeting of The Cryosphere
Room 38, 12:00–13:30

Wednesday, 22 April 2009

EBM3 Editorial Board Meeting of Biogeosciences
Room 38, 12:00–13:30

EBM8 Editorial Board Meeting of Natural Hazards
and Earth System Sciences
Room 39, 12:00–13:30

EBM10 Editorial Board Meeting of Ocean Science
Room 40, 12:00–13:30

EBM12 Editorial Board Meeting of Atmospheric Mea-
surement Techniques
Room 41, 12:00–13:30

Thursday, 23 April 2009

EBM4 Editorial Board Meeting of Climate of the Past
Room 38, 12:00–13:30

EBM5 Editorial Board Meeting of eEarth
Room 39, 12:00–13:30

EBM6 Editorial Board Meeting of Geoscientific Model
Development
Room 41, 12:00–13:30

EBM7 Editorial Board Meeting of Hydrology and Earth
System Sciences
Room 40, 12:00–13:30



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Isotopes in Geosciences: Instrumentation and Applications

Pier de Groot (pier.de.groot@pandora.be)

Magnetism, Palaeomagnetism, Rock Physics & Geomaterials

Mioara Manda (mioara@gfz-potsdam.de)

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ESF at EGU General Assembly 2009

Tuesday 21 April

- ▶ **BG7.1 • Traces of Life from Cells to Planets**
 Convener: E. Javaux
 Co-Conveners: A. Bekker, K. Lepot
 Talks: 13:30-15:00, Room 22
 15:30-16:15, Room 22
 Posters: 8:00-19:00, Hallway next to Room 22

Wednesday 22 April

- ▶ **OS18 • European Collaboration for Implementation of Marine Research on Cores (EuroMARC)**
 Convener: G. Camoin
 Co-Conveners: T. Dokken, D. Hauglustaine
 Posters: 17:30-19:00 Authors' Attendance,
 Hall X/Y, on display all day

Thursday 23 April

- ▶ **EG1 • European Cooperation in Geosciences and Environmental Sciences: ESF & COST Achievements and Opportunities**
 Conveners: I. Jonckheere and D. Hauglustaine
 Co-Conveners: C. Petit
 Talks: 13:30-15:00, Room 16
- ▶ **EOS12 • The Significance of Marine Technology in Science Communication – Challenges and Opportunities (organised by Marine Board – ESF)**
 Convener: A. Gerdes
 Co-Conveners: M. Evrard
 Talks: 15:30-17:00, Room 9
- ▶ **OS18 • European Collaboration for Implementation of Marine Research on Cores (EuroMARC)**
 Convener: G. Camoin
 Co-Conveners: T. Dokken, D. Hauglustaine
 Talks: 15:30-17:00, Room 16

Friday 24 April

- ▶ **BG1.11 • Biodiversity Science in Europe: New Tools and Strategies (EuroDIVERSITY)**
 Convener: I. Jonckheere
 Co-Conveners: P. Frenzel
 Talks: 08:30-10:00, Room 21
 Posters: 10:30-12:00 Authors' Attendance,
 Hall X/Y, Section BG, on display all day

- ▶ **Why not visit us at the ESF booth #27-28 at the General Assembly exhibition?**
 On Tuesday 21 April at 12:00 and on Thursday 23 April at 17:00, we are also hosting two 'get-together' events at the booth where you will have a chance to mingle whilst enjoying some light snacks and drinks.

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Natural Hazards

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 Darren Gröcke (d.r.grocke@durham.ac.uk)
 Aadrian Immenhauser (adrian.immenhauser@rub.de)
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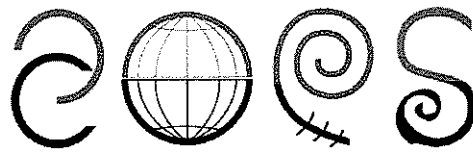
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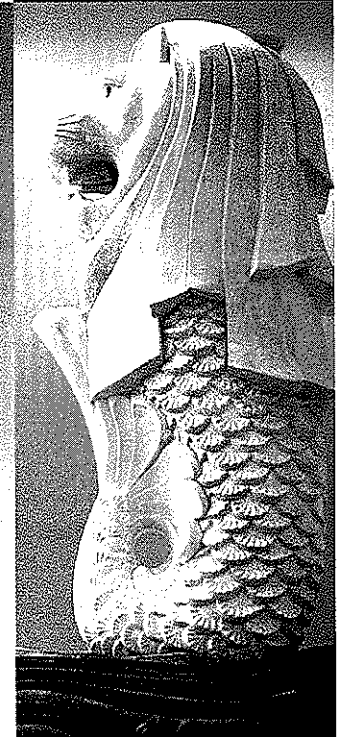
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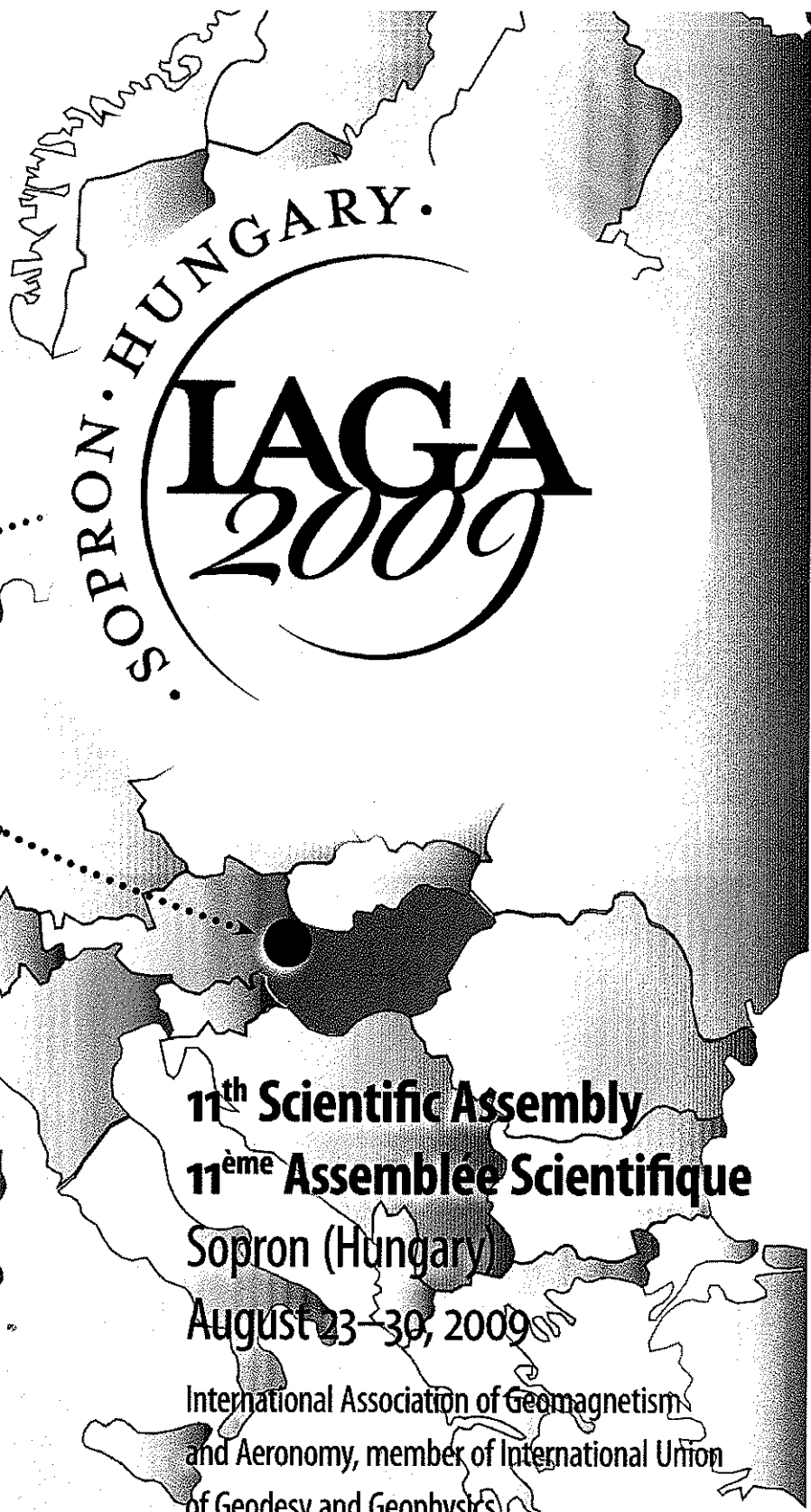
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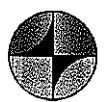
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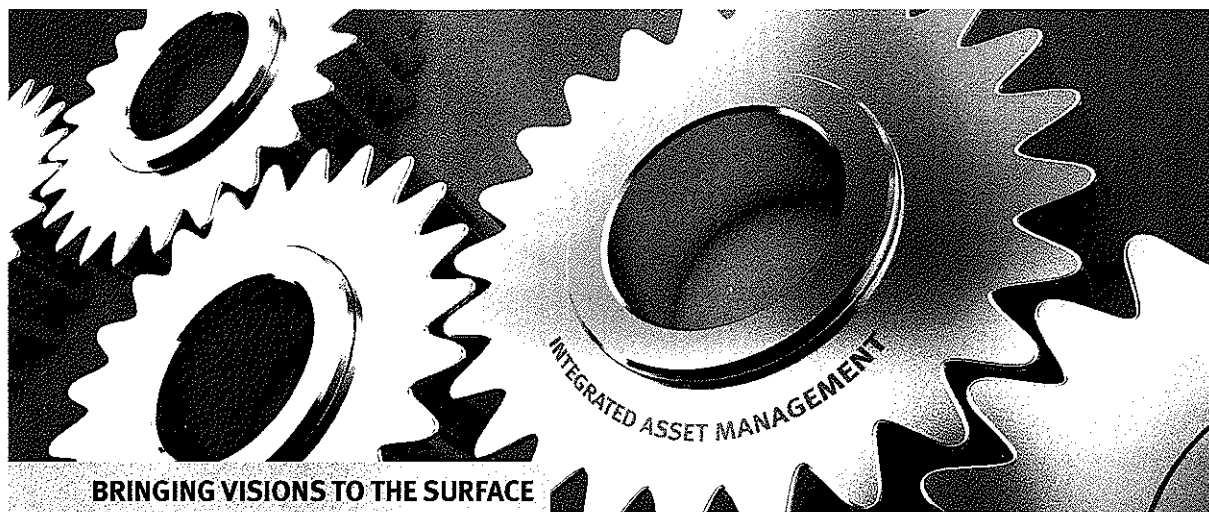


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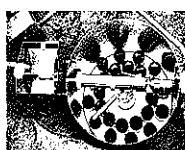
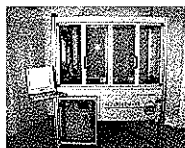
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 Friday, 24 April 2009, 09:00–13:00

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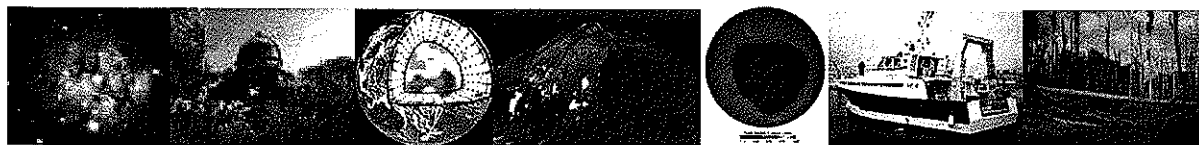
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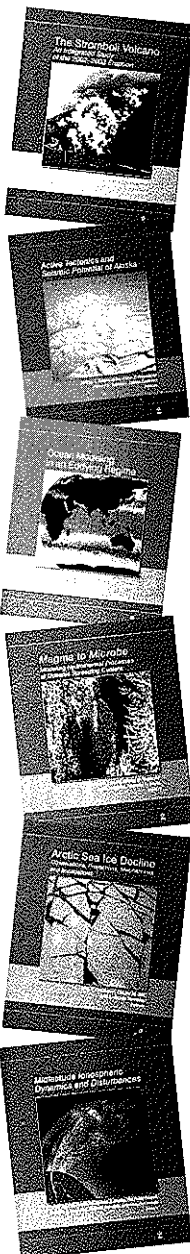
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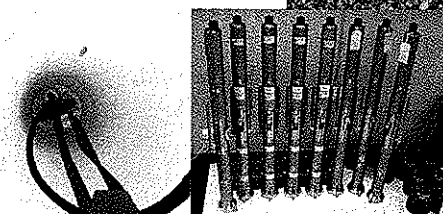
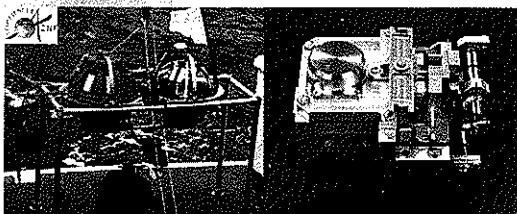
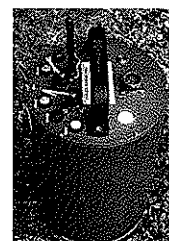


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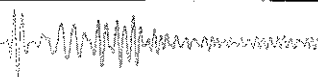


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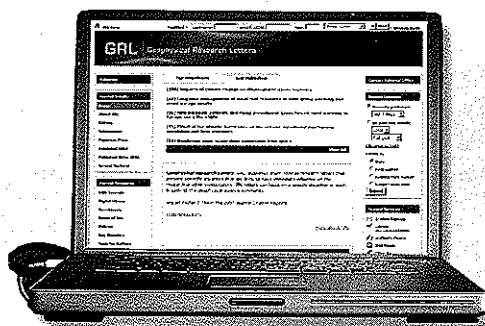
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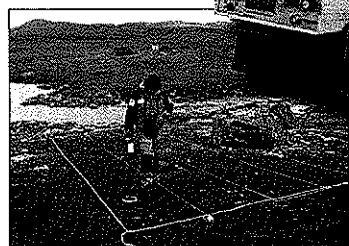
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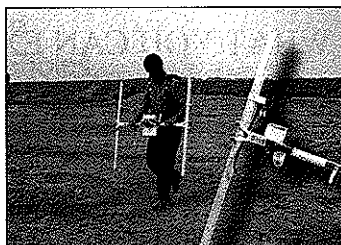
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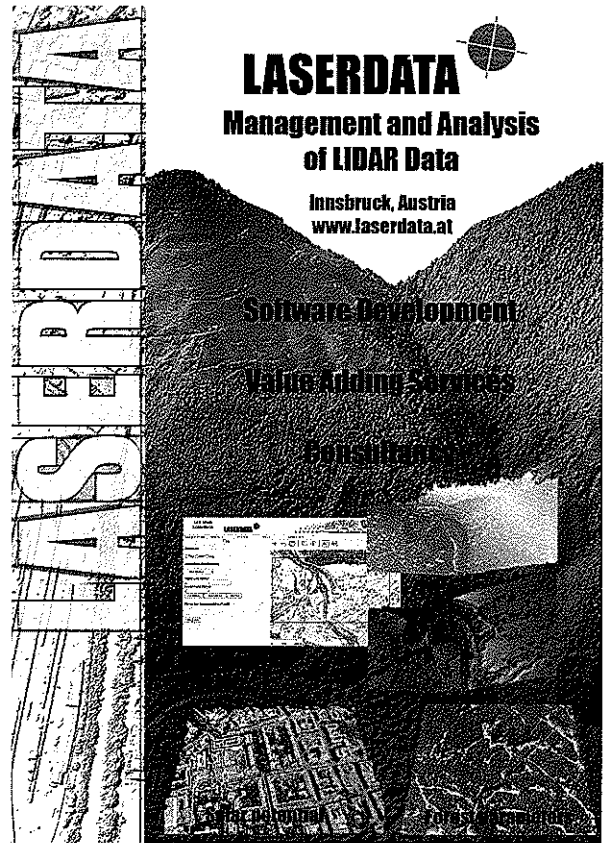
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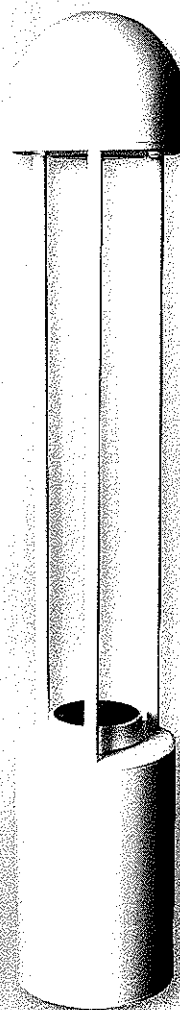
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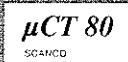
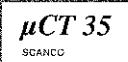
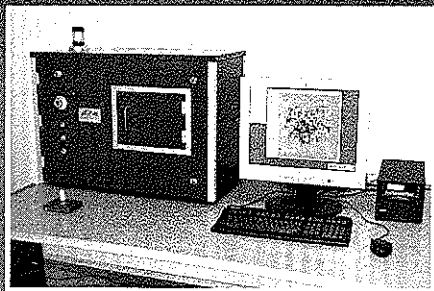
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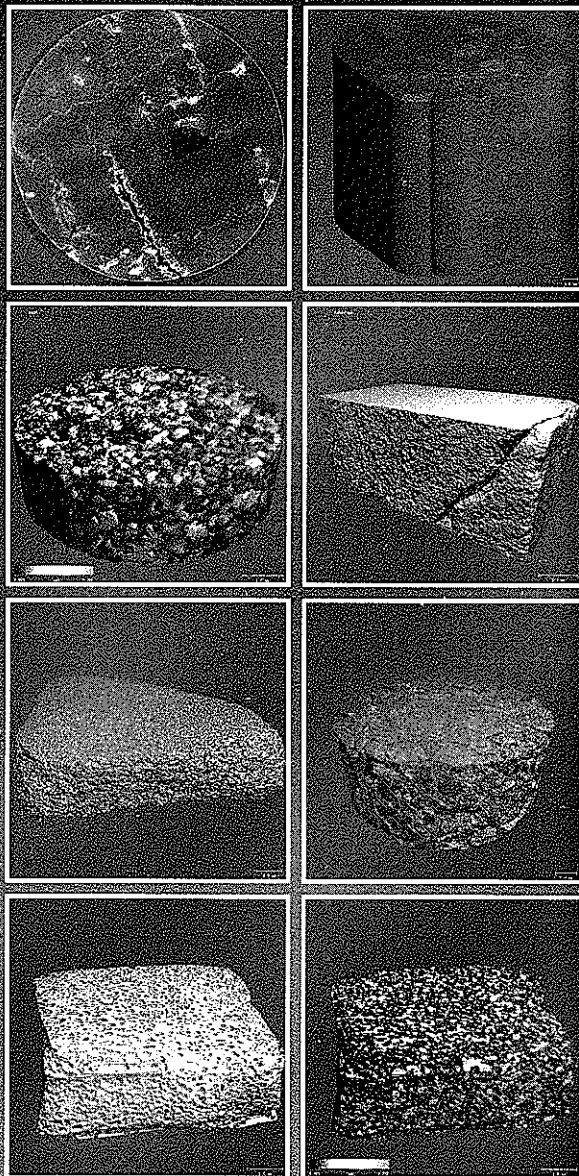
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 eckvan@knmi.nl

Booth #36

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 8306 Bruettisellen
 Switzerland
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 Fax: +41-44-8059801
 wkoelewijn@scanco.ch

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Science / AAAS
 82-88 Hills Road
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 United Kingdom
 Attn. J. Reeves
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 jreeves@science-int.co.uk

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EKO 80th
anniversary

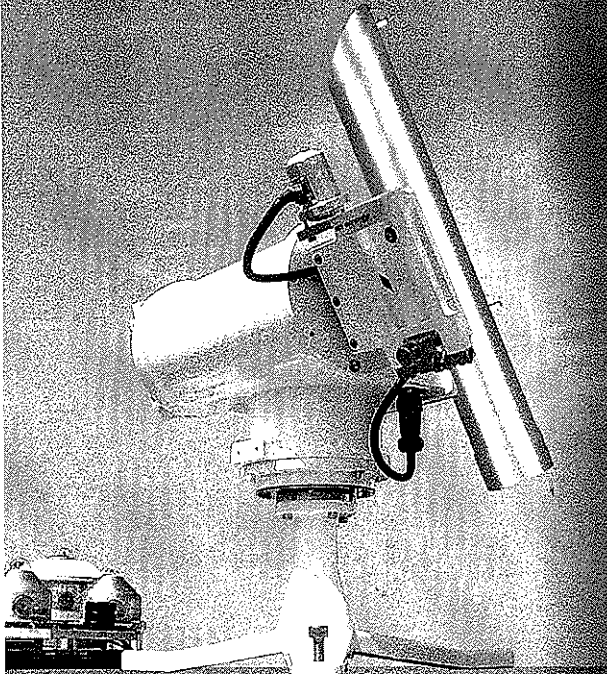
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mandy.mccartney@informa.com

Booth #01-4

The Geological Society of America
3300 Penrose Place, P.O. Box 9140
Boulder, CO 80301-9140
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Attn. R. Freeman
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Fax: +1-303-3571071
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Thermo Fisher Scientific GmbH

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81379 München
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Booth #56

WITec GmbH

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lena.balogh@witec.de

Booth #15

Umwelt-Geräte-Technik GmbH

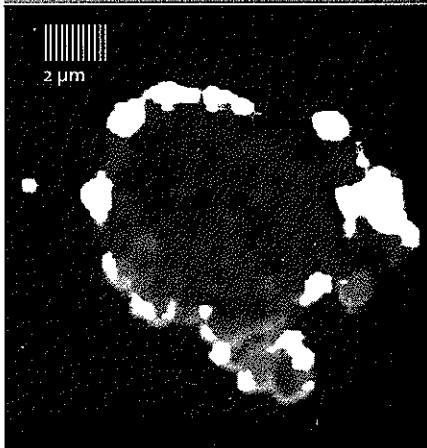
Lise-Meitner-Strasse 30
85354 Freising
Germany
Attn. M. Seyfarth and S. Reth
Tel: +49-8161-2346441
Fax: +49-8161-2346443
sascha.reth@ugt-online.de

Booth #41

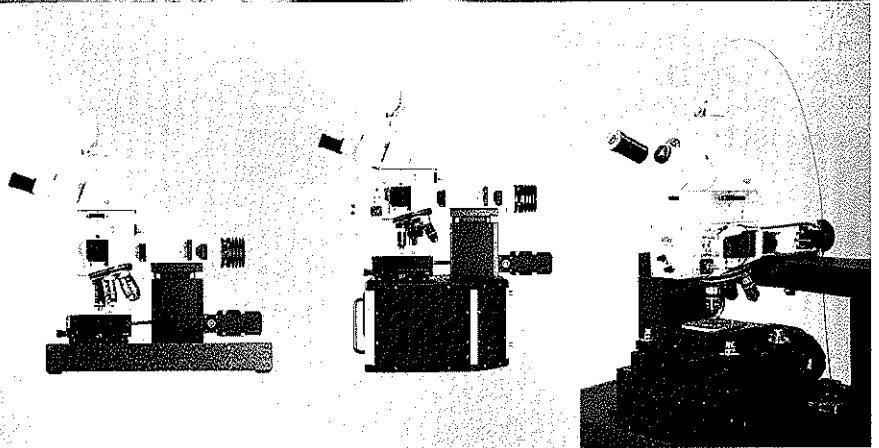
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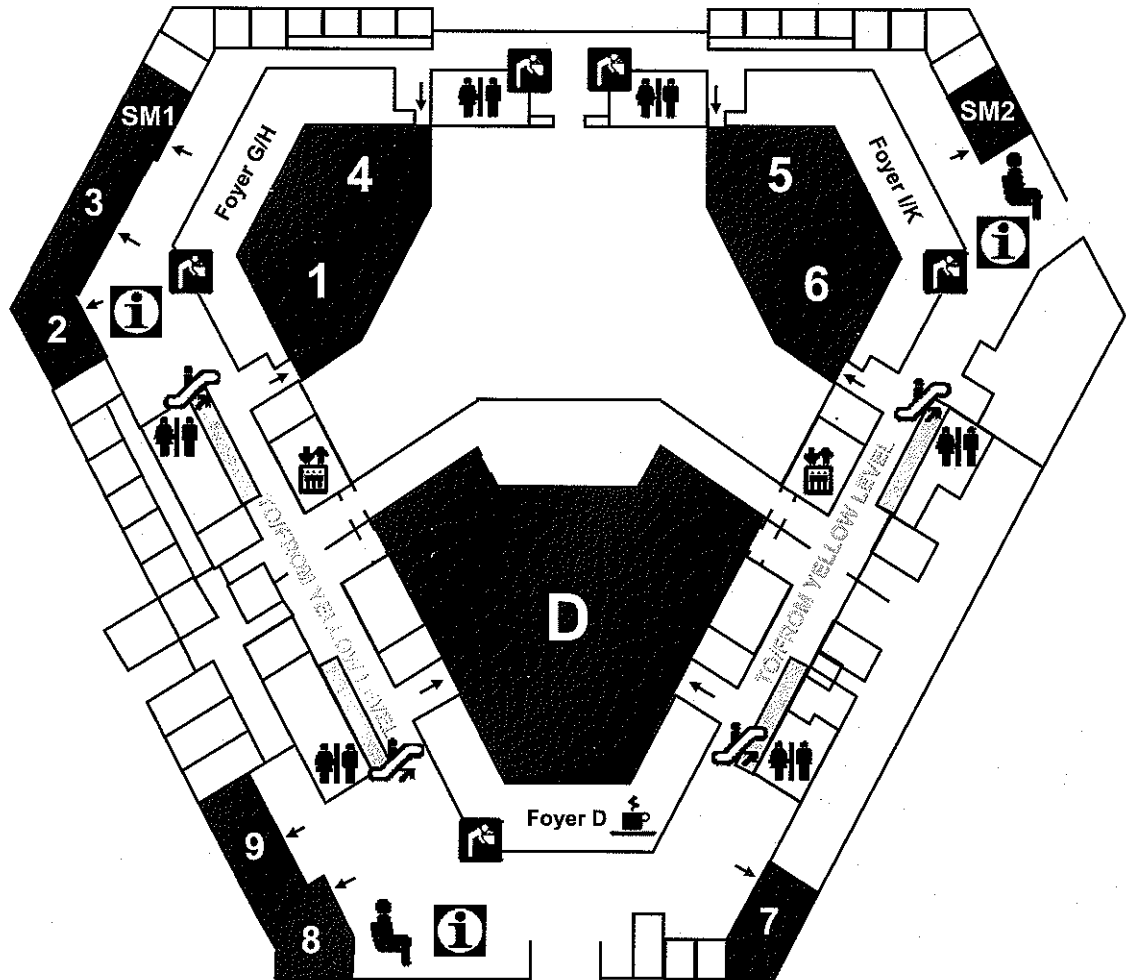
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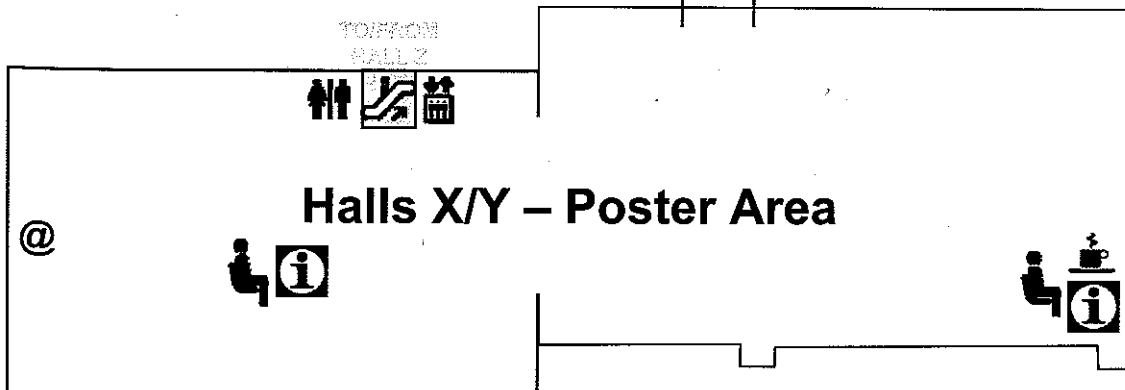
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Basement – Blue Level (U2)

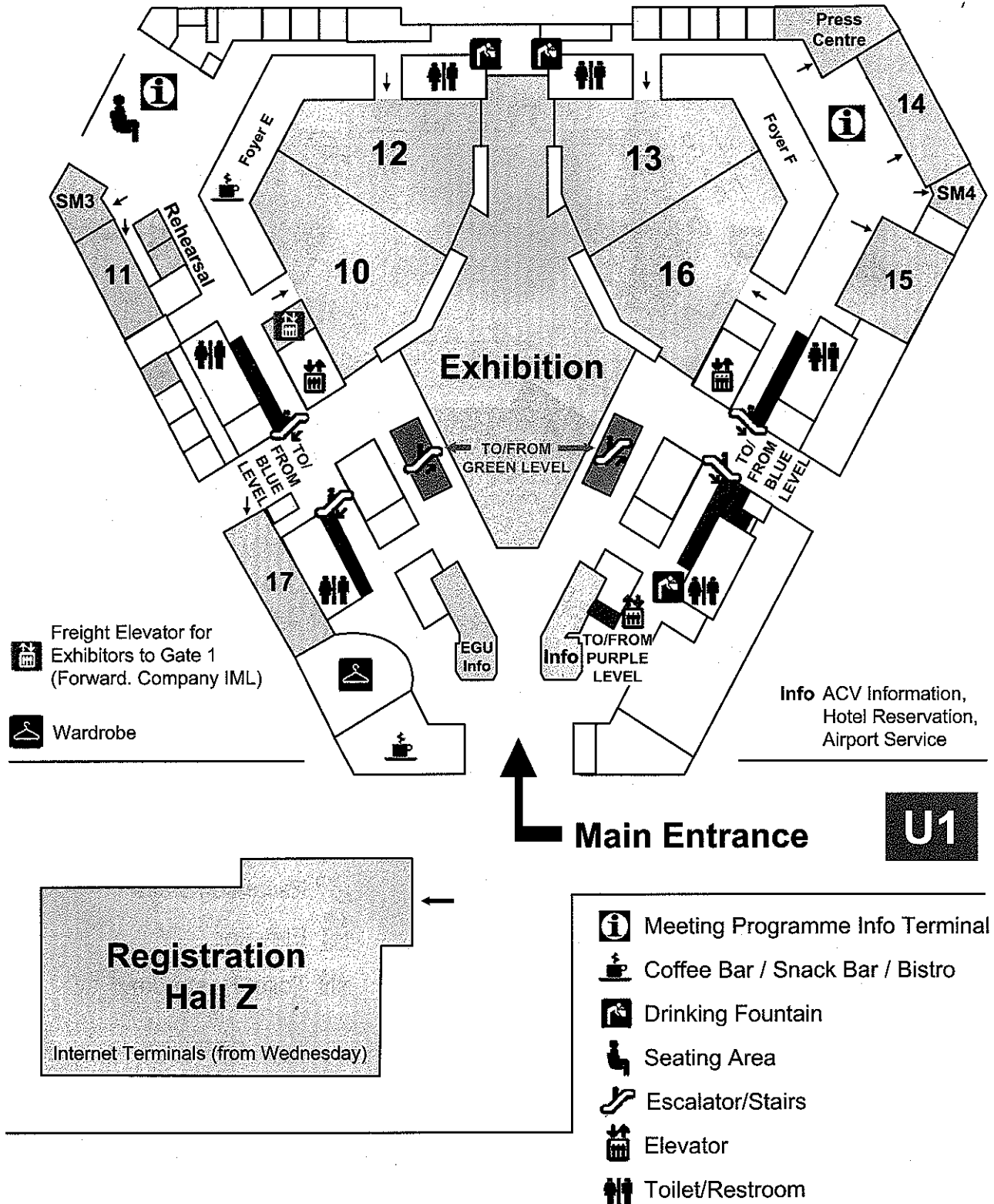


-  Meeting Programme Info Terminal
-  Coffee Bar / Snack Bar / Bistro
-  Drinking Fountain
-  LAN Area (Plug & Play) / Internet Terminals

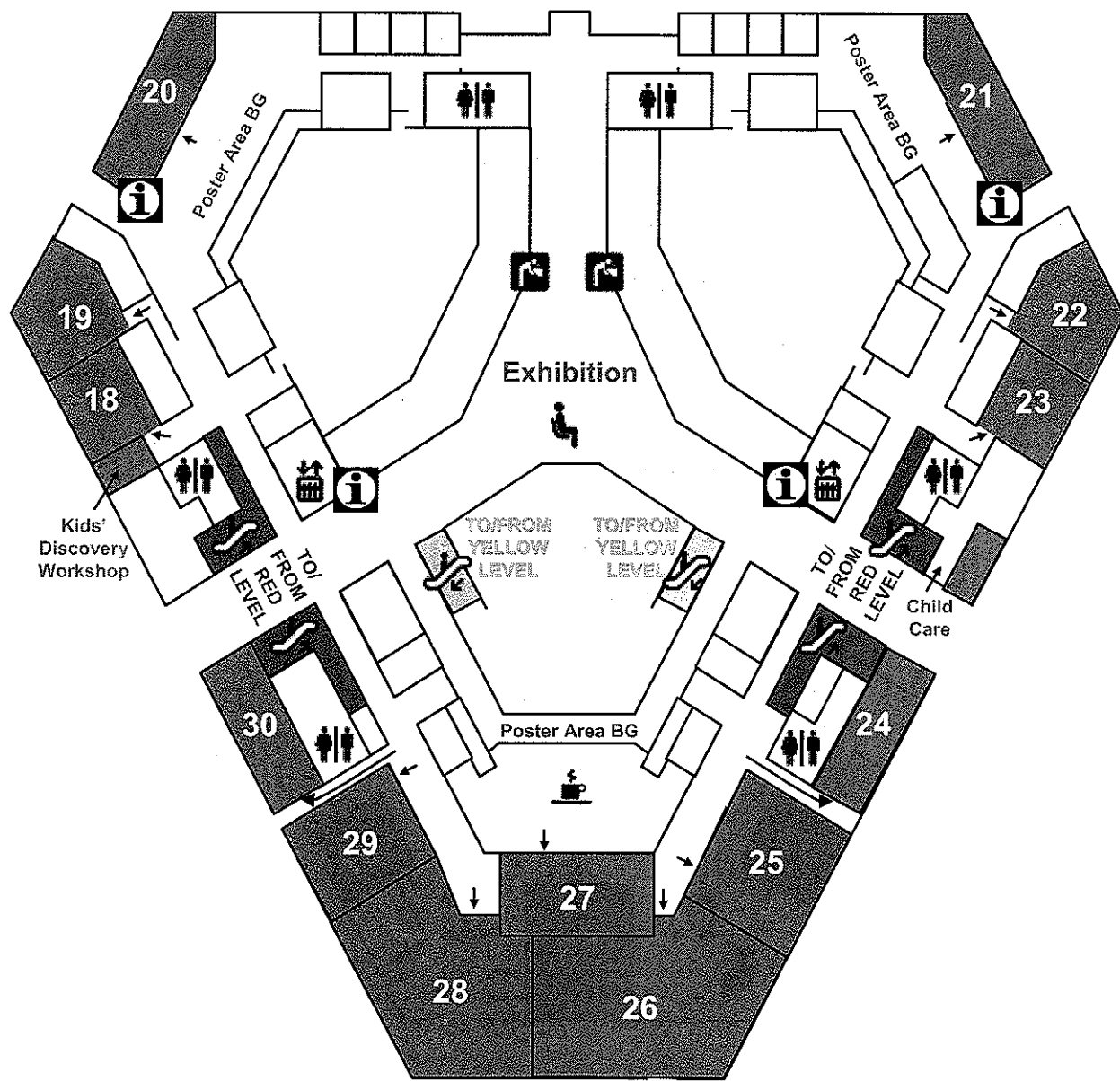
-  Seating Area
-  Escalator/Stairs
-  Elevator
-  Toilet/Restroom



Ground Floor – Yellow Level (OE)

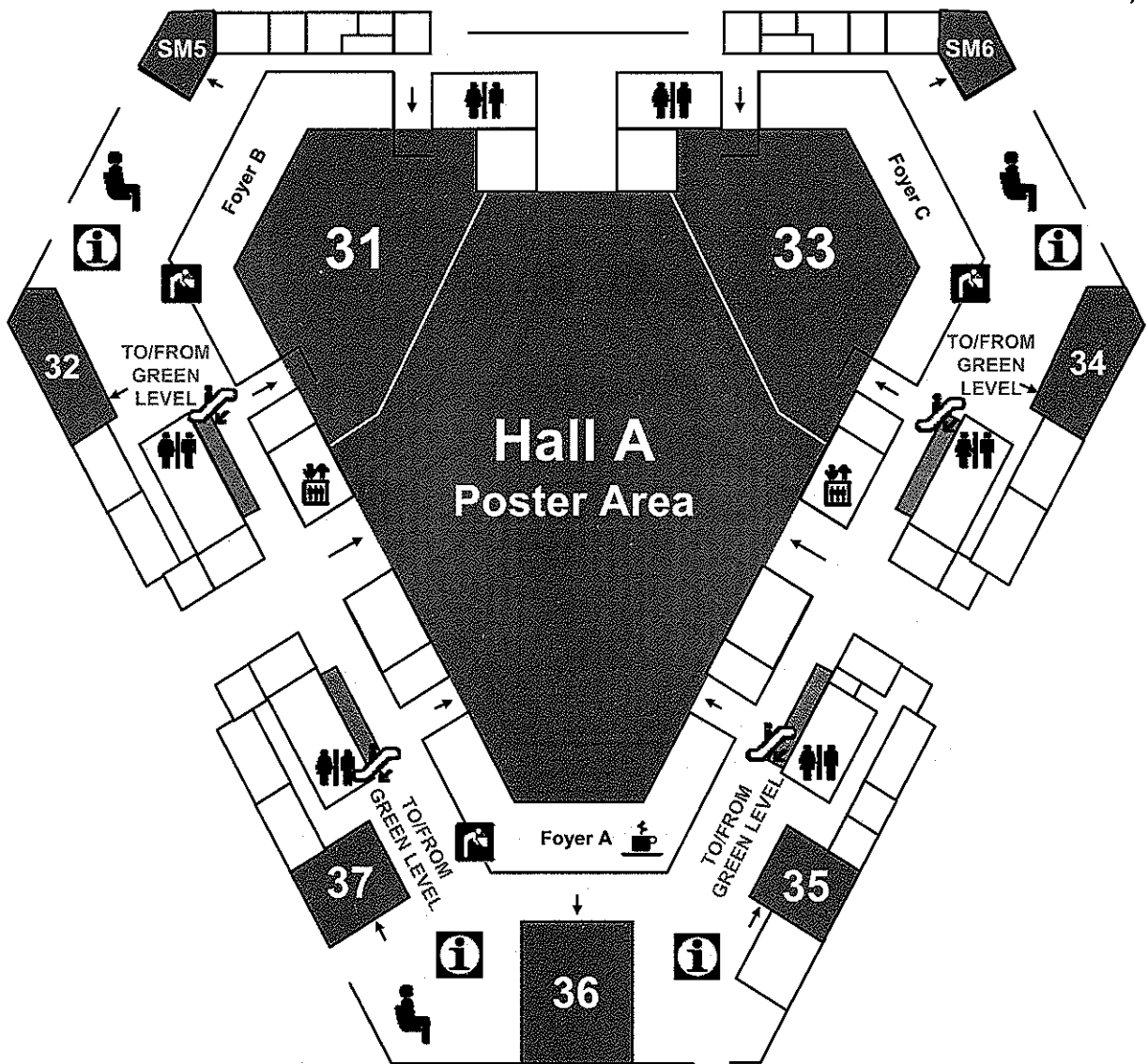



First Floor – Green Level (O1)



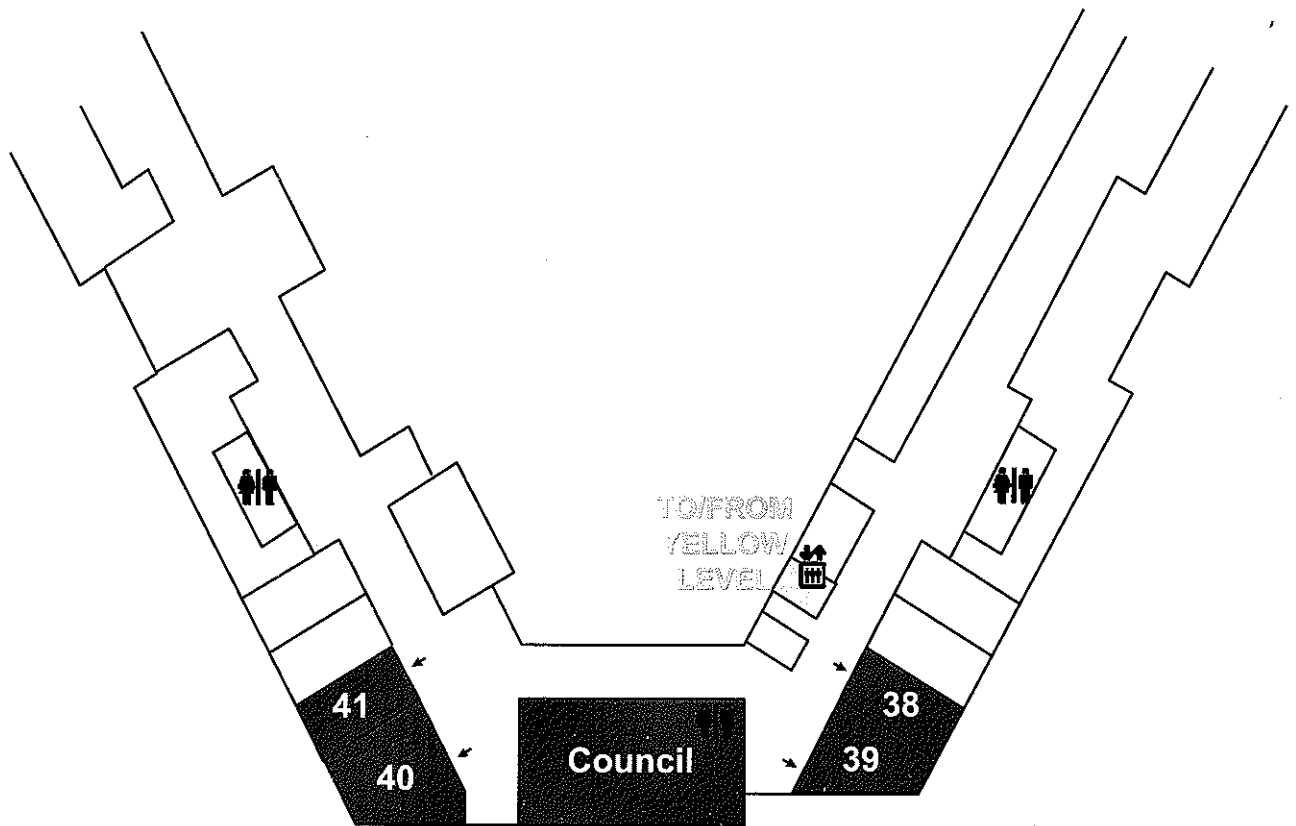
-  Meeting Programme Info Terminal
-  Coffee Bar / Snack Bar / Bistro
-  Drinking Fountain
-  Seating Area
-  Escalator/Stairs
-  Toilet/Restroom

Second Floor – Red Level (O2)



-  Meeting Programme Info Terminal
-  Coffee Bar / Snack Bar / Bistro
-  Drinking Fountain
-  Seating Area
-  Escalator/Stairs
-  Elevator
-  Toilet/Restroom

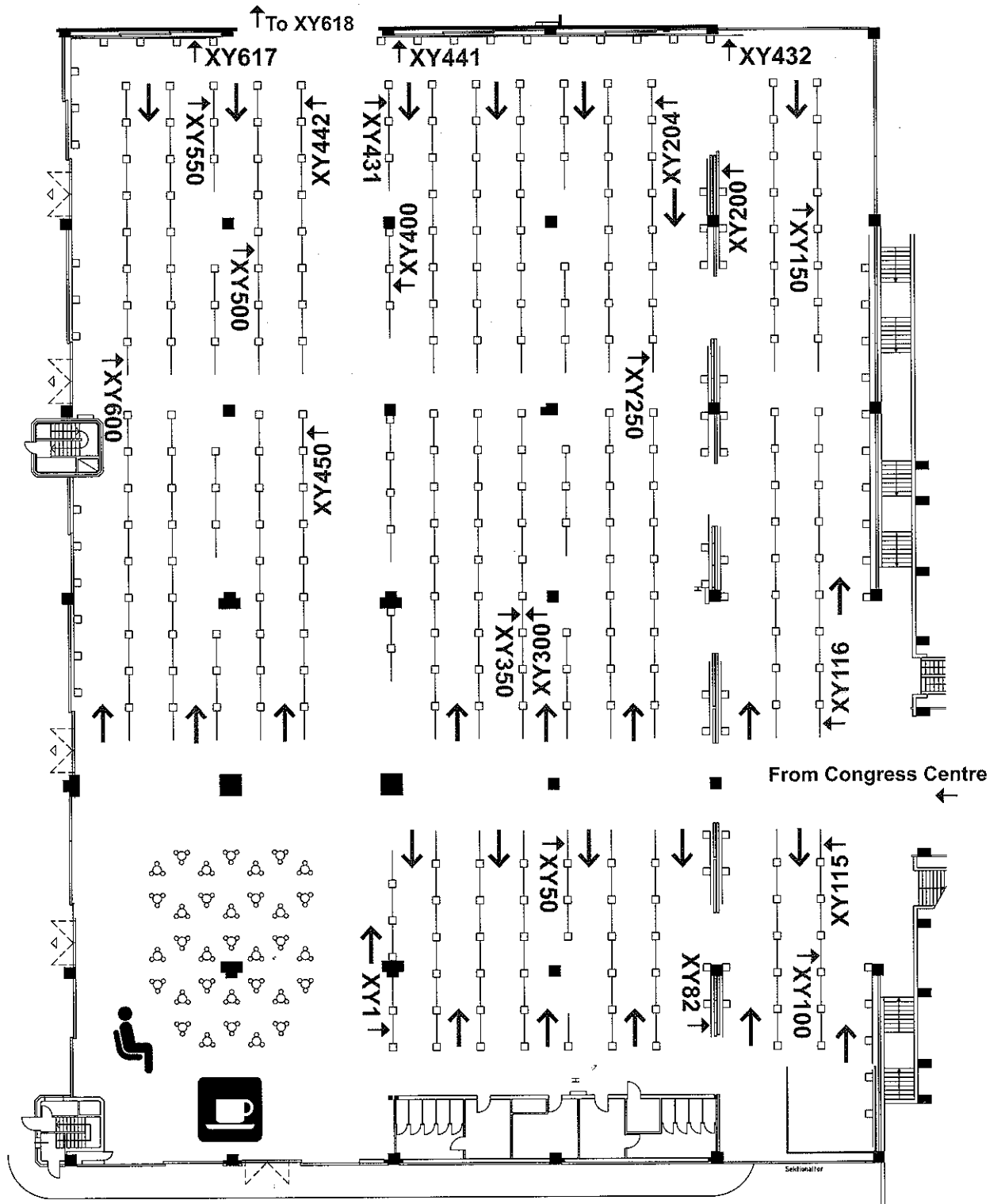
Third Floor – Purple Level (O3)



 Toilet/Restroom

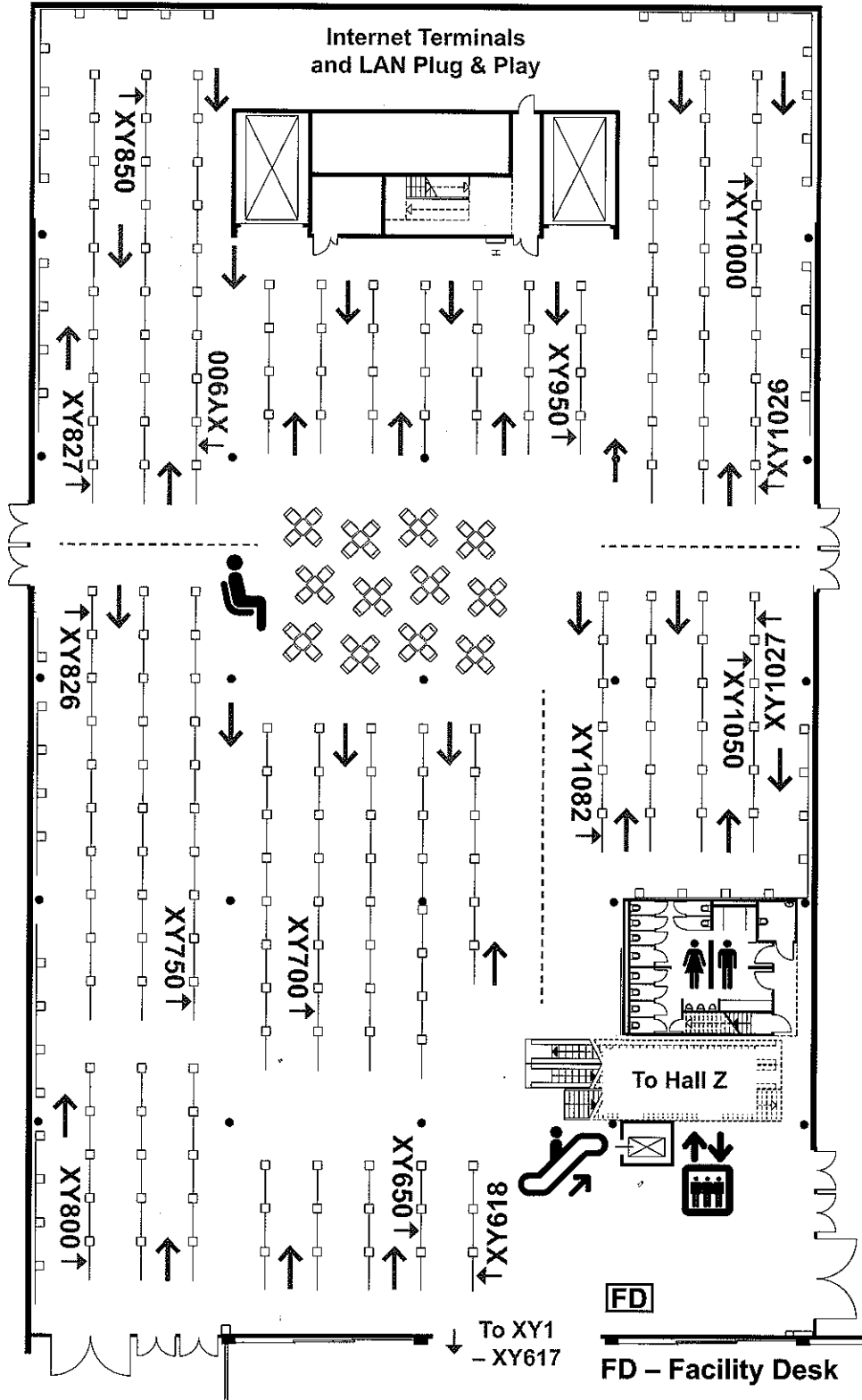
Poster Area Halls X/Y Posters XY1 – XY617

617 Posters



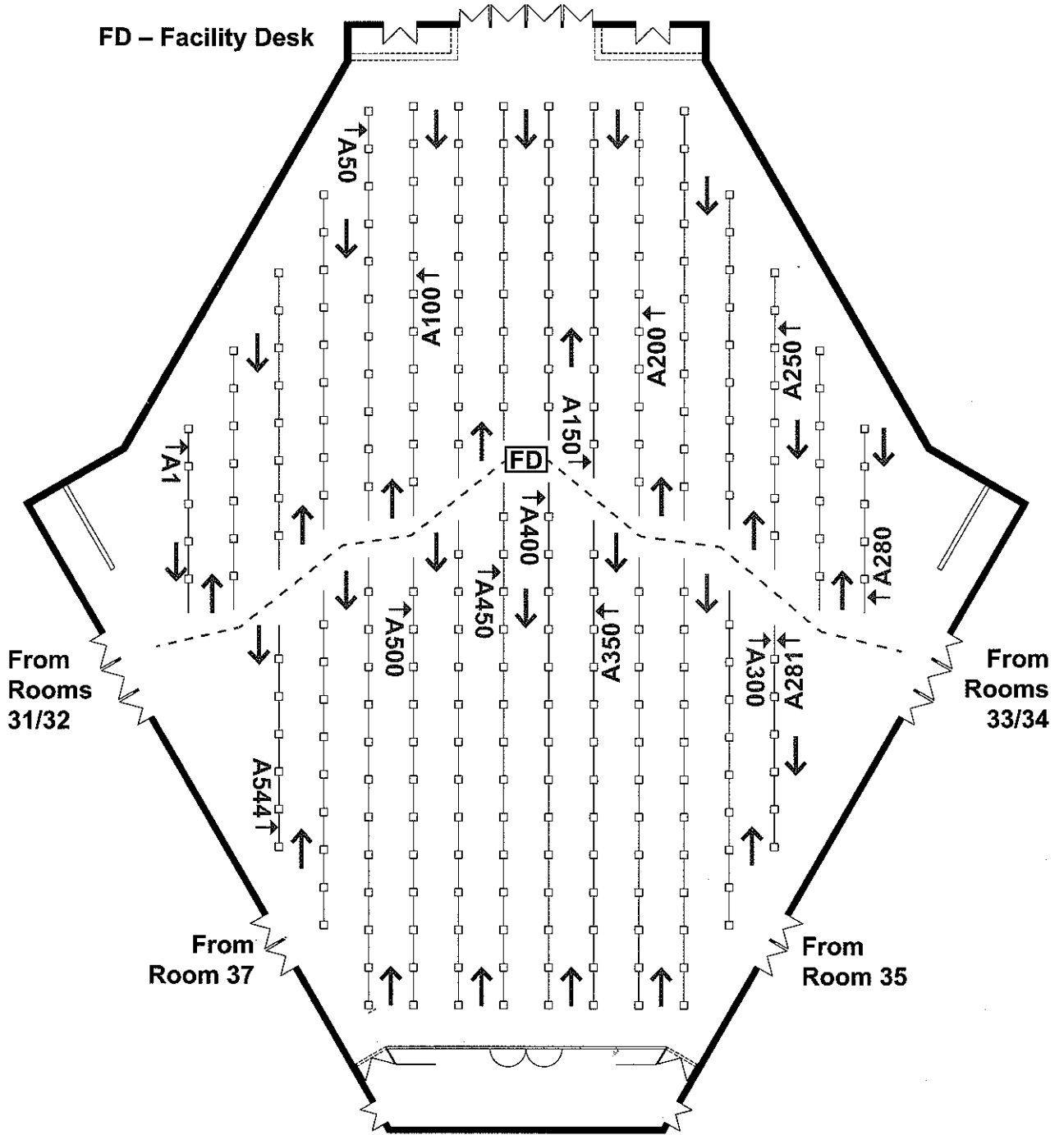
Poster Area Halls X/Y Posters XY618 – XY1082

465 Posters



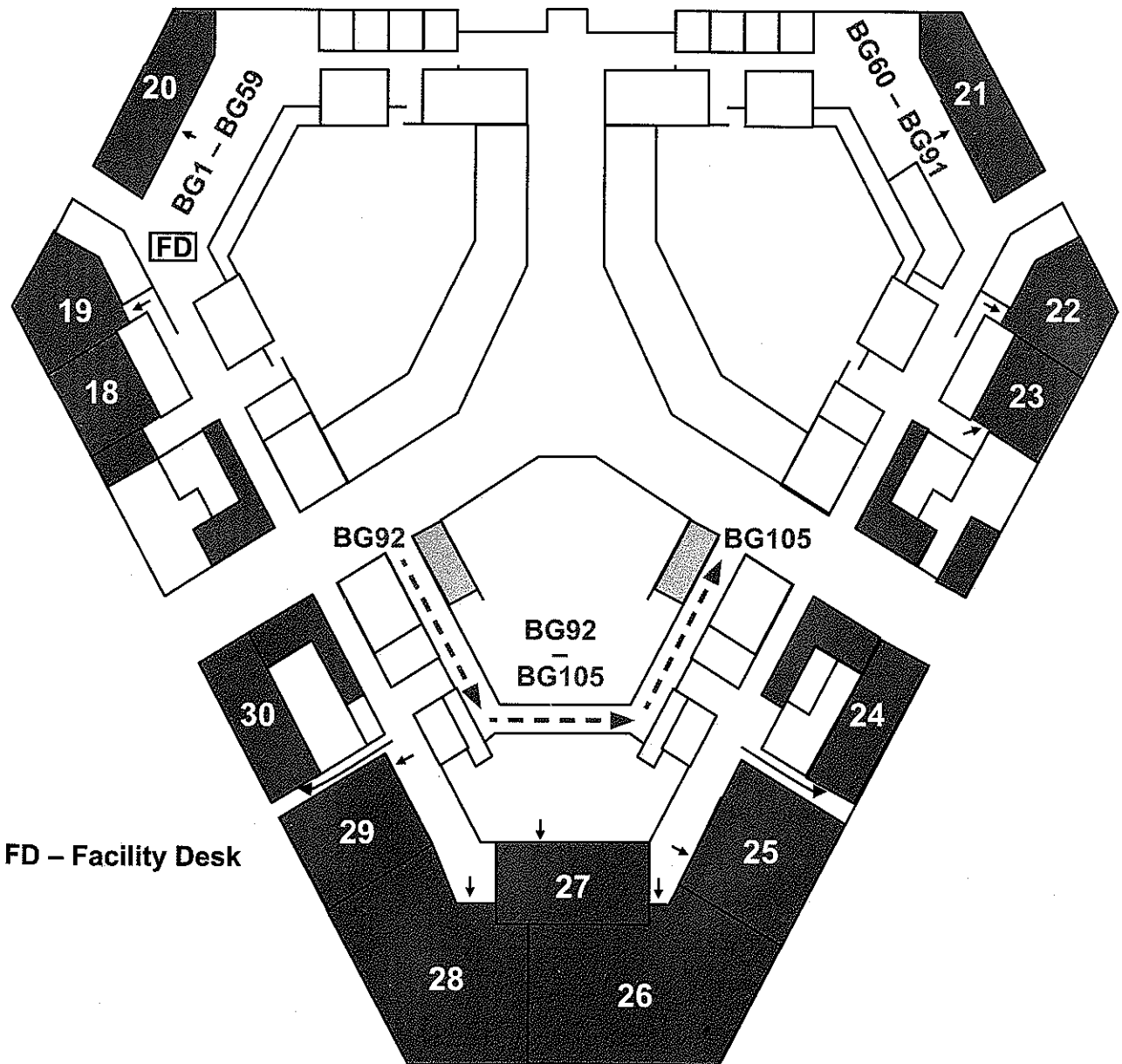
Poster Area Hall A Second Floor – Red Level (O2)

544 Posters



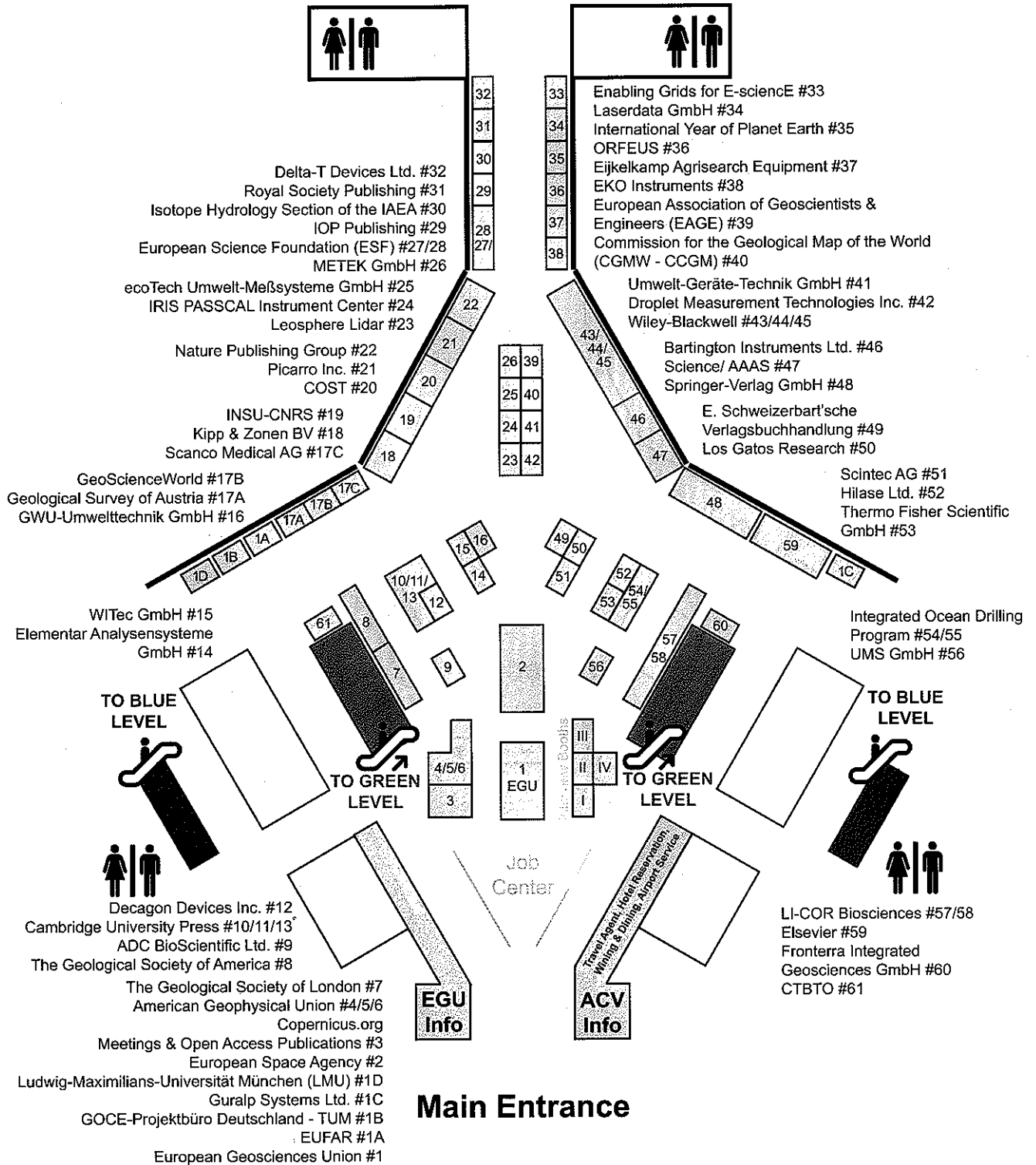
Poster Area BG First Floor – Green Level (O1)

105 Posters

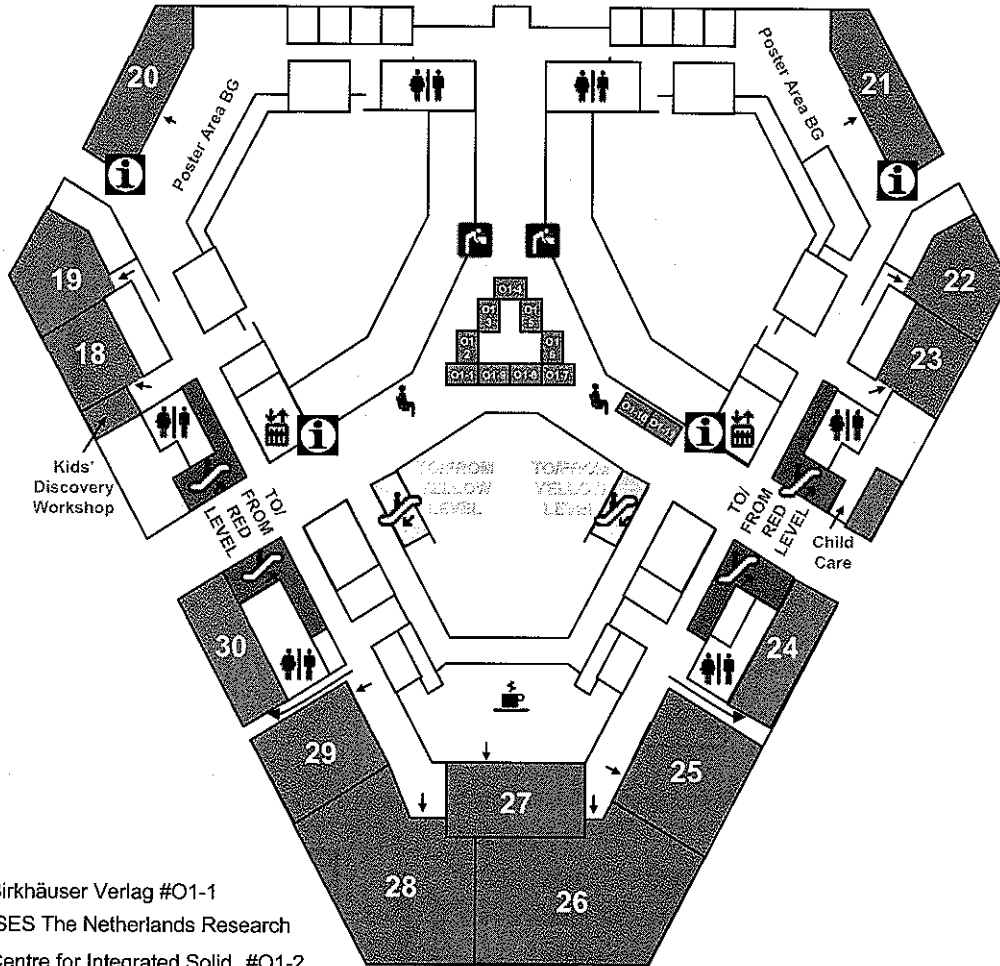


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4


Exhibition / Entrance Hall Ground Floor – Yellow Level (OE)

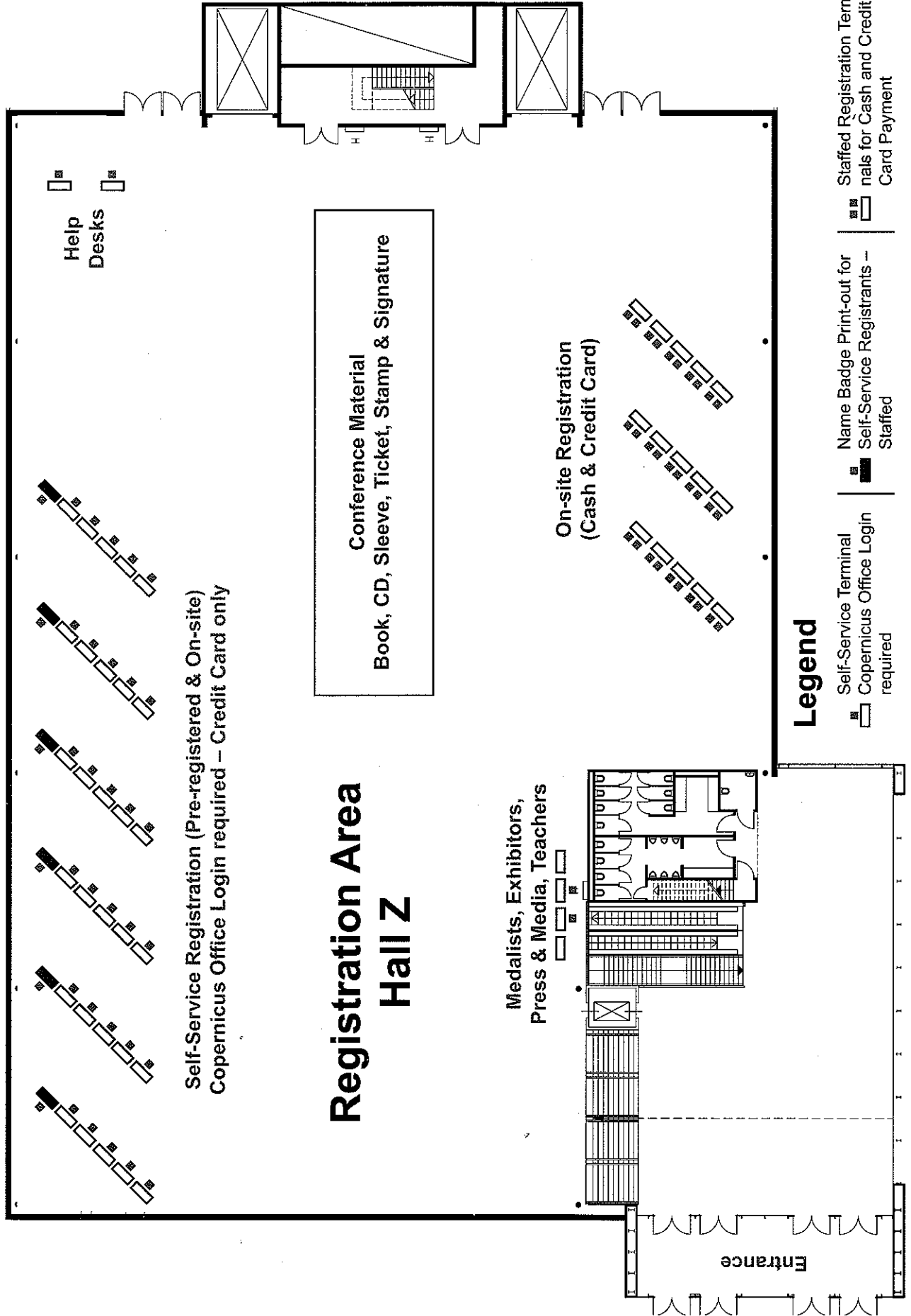


Exhibition – Gallery First Floor – Green Level (O1)



- Birkhäuser Verlag #O1-1
- ISES The Netherlands Research
- Centre for Integrated Solid #O1-2
- Geomorphology 2009 Conference
- Organisers #O1-3
- Taylor & Francis #O1-4
- Kinematics Inc. #O1-5
- Skye Instruments Ltd. #O1-6
- Battelle #O1-7
- Nanometrics Inc. #O1-8
- OMV Exploration & Production #O1-9
- IPY-Oslo Science Conference 2010 #O1-10

-  Meeting Programme Info Terminal
-  Snack Bar
-  Drinking Fountain
-  Seating Area
-  Escalator/Stairs
-  Toilet/Restroom



Registration Area Hall Z

European Geosciences Union – General Assembly

Programme Groups

US	Union Symposia
IS	Interdivision Sessions
EG	Europe in Geosciences
EOS	Educational and Outreach Symposia
AS	Atmospheric Sciences
BG	Biogeosciences
CL	Climate: Past, Present & Future
CR	Cryospheric Sciences
ERE	Energy, Resources and the Environment
ESSI	Earth & Space Science Informatics
G	Geodesy
GD	Geodynamics
GI	Geosciences Instrumentation and Data Systems
GM	Geomorphology
GMPV	Geochemistry, Mineralogy, Petrology & Volcanology
HS	Hydrological Sciences
IG	Isotopes in Geosciences: Instrumentation and Applications
MPRG	Magnetism, Palaeomagnetism, Rock Physics & Geomaterials
NH	Natural Hazards
NP	Nonlinear Processes in Geosciences
OS	Ocean Sciences
PS	Planetary and Solar System Sciences
SM	Seismology
SSP	Stratigraphy, Sedimentology & Palaeontology
SSS	Soil System Sciences
ST	Solar-Terrestrial Sciences
TS	Tectonics and Structural Geology
GB	Great Debates in Geosciences
ML	Medal Lectures
KL	Keynote Lectures
DBM	Division Business Meetings
EBM	Editorial Board Meetings
UM	Union Meetings
TM	Townhall Meetings
SPM	Splinter Meetings
SC	Short Courses

EGU 2009 Programme Group Schedule

NH – Natural Hazards

O: Oral Presentation (Lecture Room) / P: Poster Presentation (Poster Hall)

TB: 1: 8:30–10:00 / 2: 10:30–12:00 / 3: 13:30–15:00 / 4: 15:30–17:00 / 5: 17:30–19:00

Division Business Meeting: Thursday, 12:15–13:15, Room 29

Session	Title	TB	MO	TU	WE	TH	FR
NH1.1	Precipitation Science	1		O (6)	O (6)		
		2		O (6)	O (6)		
		3		O (6)	P (XY)		
		4		O (6)	P (XY)		
		5		O (6)			
HS8.1/ AS4.1/ NH1.2/ NP3.6	Precipitation: from measurement to modelling and application in catchment hydrology	1					
		2					
		3	O (31)				
		4	O (31)				
		5	P (A)				
NH1.4	Extreme Events Induced by Weather and Climate Change: Evaluation, Forecasting and Proactive Planning	1	O (6)				
		2	O (6)				
		3					
		4					
		5	P (XY)				
NH1.5/ HS13.01	Assessment of Weather-related Risk on Agricultural Production and Agribusiness	1					
		2					
		3	O (30)				
		4	O (30)				
		5	P (XY)				
NH1.7/ AS4.4	Lightning and its Atmospheric Effects	1					
		2					
		3					
		4				O (29)	
		5				O (29)	P (XY)
NH2.1	Floods: monitoring, modelling, risk and uncertainty	1		O (18)			
		2					
		3					
		4					
		5		P (XY)			
HS5.6/ NH2.3	Floodplain mapping and flood prevention techniques in the 21st century	1			O (34)		
		2			O (34)		
		3					
		4					
		5				P (A)	
GM3.3/ CL65/ HS13.03/ NH2.4	Flooding and climate during the last two millennia	1					
		2					
		3					O (19)
		4					
		5					P (A)
HS10.2/ NH2.5	Flash flood events: observations, processes and forecasting	1	O (32)				
		2	O (32)				
		3					
		4					
		5	P (A)				
HS2.5/ NH2.7	Hydrological extremes: from droughts to floods	1					
		2					P (A)
		3					O (31)
		4					O (31)
		5					
NH2.8	Quantitative Methods for Desertification Monitoring and Assessment	1					
		2					
		3					
		4					
		5	P (XY)				
NH2.9	Alluvial fans and debris cones: Risk assessment and Climate Change Impacts	1	O (30)				
		2					
		3					
		4					
		5	P (XY)				
NH3.1/ GMPV22	Volcanic threats: hazard identification, assessment and risk mitigation	1					O (29)
		2					O (29)
		3					P (XY)
		4					
		5					

Session	Title	TB	MO	TU	WE	TH	FR
NH4.1/ GM6.3	Landslides, ground-failures and mass movements induced by earthquakes and volcanic activity	1					
		2					
		3					
		4				O (18)	
		5				P (XY)	
NH4.2/ HS11.7	Hydrological processes in landslide research: analysis and quantification	1			O (18)		
		2			O (18)		
		3					
		4					
		5				P (XY)	
NH4.3	Landslides Triggered by Rainfall Events	1					
		2					
		3					
		4					O (18)
		5					P (XY)
HS11.1/ NH4.4	Rainfall triggered landslides and debris flows and their effect on erosion and sediment yield in river catchments	1					
		2					
		3					O (35)
		4					
		5					P (A)
GM6.2/ NH4.5	Processes and rates of rock slope erosion: weathering, detachment, and transport	1					
		2					
		3					
		4					O (19)
		5					P (A)
NH4.6	Hydrological, hydraulic and mechanical effects of plants for slope stability	1					
		2					
		3				O (18)	
		4					
		5				P (XY)	
NH4.7/ HS2.7	Natural and anthropogenic hazards related to water reservoirs	1					
		2					
		3					
		4					
		5				P (XY)	
NH4.8	Large slope instabilities: from dating, triggering, monitoring and evolution modelling to hazard assessment	1				O (18)	
		2				O (18)	
		3					
		4					
		5					P (XY)
NH4.9	Landslides monitoring and characterization using high resolution DEM, LIDAR and other DEM techniques	1					
		2		O (18)			
		3					
		4					
		5		P (XY)			
NH4.10	Impacts of climate change and land-use change on landslides	1					
		2					
		3					
		4					
		5					P (XY)
NH4.11	Time and intensity prediction in landslide hazard assessment	1					
		2					
		3					O (18)
		4					
		5					P (XY)
NH4.12	Remote sensing and geophysical techniques for investigating unstable slopes	1					
		2					
		3		O (18)			
		4		O (18)			
		5		P (XY)			
NH4.13	Terrain Instability Analysis and Mass Movement Prevention	1		O (18)			
		2					
		3					
		4					
		5		P (XY)			
NH4.14/ HS11.6	Landslide Forecasting	1			O (29)		
		2			O (29)		
		3					
		4					
		5			P (XY)		
NH4.15	Landslide risk assessment methods and strategies	1					
		2					
		3				O (29)	
		4				O (29)	
		5				P (XY)	

Session	Title	TB	MO	TU	WE	TH	FR
NH4.16	Documentation and monitoring of landslides and debris flows for mathematical modelling and design of mitigation measures	1					
		2					
		3					
		4					O (18)
		5					P (XY)
NH4.17	Rockfalls - Analysis, Simulation and Protection	1					
		2					O (18)
		3					
		4					
		5					P (XY)
NH5.1/ SM4.5	Earthquake Risk and Loss Estimates: New Directions (including Sergey Soloviev and Plinius Medal Lectures)	1					
		2					
		3	O (6)				
		4	O (6)				O (6)
		5	P (XY)				
NH5.2/ SM4.6	Seismic hazard evaluation, precursory phenomena and reliability of prediction	1					O (30)
		2					O (30)
		3					O (30)
		4					P (XY)
		5					
NH5.3/ SM6.3 ✓	Electric, magnetic and electro-magnetic phenomena related to earthquakes	1					
		2					
		3					O (30)
		4					O (30)
		5					O (30)
NH5.4/ SM6.5	Deformation processes and accompanying mechanical and electromagnetic phenomena, for rocks and other materials, from the laboratory to the geophysical scale	1					
		2					
		3					
		4					P (XY)
		5					
NH6.1	Tsunami: Science, Prevention and Mitigation Measures	1					O (6)
		2					O (6)
		3					O (6)
		4					P (XY)
		5					P (XY)
SM4.2/ NH6.2	Earthquake and Tsunami Early Warnings	1					
		2					
		3					
		4	O (4)				
		5	O (4)	P (XY)			
NH6.3	Extreme Sea Waves	1					O (30)
		2					O (30)
		3					
		4					
		5					P (XY)
NH6.4	Coastal geo-hazards and storm surges: characterization, prediction and climate change	1					
		2					
		3					O (29)
		4					P (XY)
		5					
NH7.2	Snow avalanche formation and dynamics	1					
		2					
		3					O (30)
		4					O (30)
		5					P (XY)
CR10.1/ CL40/ NH7.3	Climate change impacts on glaciers, permafrost and related hazards	1		O (20)			
		2		O (20)			
		3					P (XY)
		4					
		5					
CR8.3/ HS13.06/ NH7.4	Glacial Lake Outburst Floods: Current issues - future concerns	1					
		2					
		3			O (33)		P (XY)
		4					
		5					
NH8.1/ BG2.9	Spatial and temporal patterns of wildfires: models, theory, and reality	1					
		2					O (18)
		3					O (18)
		4					
		5					P (XY)
NH8.2/ AS4.5/ CL23	Wildfires, Weather and Climate	1					
		2					
		3					
		4					O (18)
		5					P (XY)

Session	Title	TB	MO	TU	WE	TH	FR
SSS18/ BG2.8/ NH8.3	Wildfire in Forest Landscapes: Desertification, Degradation, Debris Flows, & Damage Control	1					
		2					
		3					
		4	O (24)				
		5	O (24)/ P (A)				
NH9.1/ BG2.10/ SSS44	Heavy-metal contamination of water, air, soil, and foodcrops	1					
		2	P (XY)				
		3					
		4	P (XY)				
		5					
NH9.2/ GM7.3	Natural and anthropogenic hazards in karst areas	1					
		2	O (29)				
		3	O (29)				
		4					
		5	P (XY)				
GM7.2/ NH9.4	Karst systems: dynamics, evolution and paleoenvironmental recordings	1	O (29)				
		2					
		3					
		4					
		5	P (A)				
NH9.5	Radon, health and natural hazards	1					
		2	O (30)				
		3					
		4					
		5	P (XY)				
ST14/ NH9.6	Space Weather and its Effects on Terrestrial and Geo-Space Environments: Science and Applications	1					O (11)
		2					O (11)
		3					
		4					
		5					P (XY)
NH10.1/ EG5	Public policy and commercial applications of natural catastrophe risk assessment	1				O (6)	
		2				O (6)	
		3				O (6)	
		4				P (XY)	
		5				O (6)	
NH10.2/ EOS5	Natural Hazards Education and Communications to Students, Government Officials and to the Public	1					O (18)
		2					P (XY)
		3					
		4					
		5					
NH10.4	Natural Hazards and Technological Disasters	1					
		2			O (30)		
		3					
		4					
		5			P (XY)		
NH10.6	Vulnerability, disaster resilience and adaptation - concepts, methods and applications	1		O (30)			
		2					
		3					
		4					
		5		P (XY)			
NH10.7	Social Sciences in Natural Hazards Research: Interdisciplinary Research Approaches	1					
		2					
		3					
		4					
		5		P (XY)			
NH10.11 ✓	Early warning systems for natural hazards and risks	1					
		2		O (30)			
		3					
		4					
		5		P (XY)			
NH10.13/ EG6	Natural hazard risk management: From risk assessment to economic aspects and societal decision making	1					
		2					
		3		O (30)			
		4		O (30)			
		5		P (XY)			
NH10.14	Lessons Learning and Best Practices for Disaster Risk Mitigation	1					
		2					
		3					
		4					O (18)
		5					P (XY)
NH10.15/ EG7	Improving coordination between European civil protection and the scientific community	1					
		2					
		3			O (6)		
		4			O (6)		
		5			P (XY)		

Session	Title	TB	MO	TU	WE	TH	FR
NH11.1/ G23/ GD14/ GMPV20/ SM3.2/ TS6.7	Sumatra: Deformation Processes, Earthquakes, Volcanoes and Tsunamis	1			O (30)		
		2					
		3					
		4					
		5				P (XY)	
NH11.2	Modelling and simulation of dangerous phenomena, and innovative techniques for hazard evaluation, mapping, mitigation	1			O (29)		
		2			O (29)		
		3			O (29)		
		4					
		5				P (XY)	
G15/ NH11.4	Ground Movement: Measurements, Subsurface Causes, and Interpretation	1					
		2					
		3					P (XY)
		4					O (24)
		5					O (24)
EOS4	The future of European engineering: education and research	1					
		2					
		3				O (9)	
		4				O (9)	
		5				P (EOS)	
BG4.1/ AS4.7	Fire in the Earth System	1					
		2					
		3				P (BG)	
		4				O (21)	
		5				O (21)	
CL41	Mid-latitude Cyclones and Storms: Diagnostics of Observed and Future Trends, and related Impacts	1	O (13)				
		2					
		3					
		4					
		5	P (XY)				
CL54/ NP4.5	Climate time series analysis: Novel tools and their application	1				O (14)	
		2				O (14)	
		3					
		4					
		5					P (XY)
CR4.1	Open Session on Permafrost	1			O (20)		
		2			O (20)		
		3					
		4					
		5				P (XY)	
CR1.3	Applied Geophysics in Cryosphere Sciences	1					
		2					
		3					
		4				O (20)	
		5				P (XY)	
NP2.5	Modelling and Understanding Geophysical Systems as Complex Networks	1					
		2				O (16)	
		3				P (A)	
		4					
		5					
NP3.5/ HS13.08	Scales and scaling in surface and subsurface hydrology	1					
		2			O (15)	P (XY)	
		3					
		4					
		5					
GM9.1	Coastal zone geomorphologic interactions: natural versus human-induced driving factors	1					
		2					
		3					
		4	O (29)				
		5	P (A)				
GM1.3/ NP3.10	Stochastic Transport and Emergent Scaling on the Earth's Surface	1					
		2					
		3				O (19)	
		4					
		5				P (A)	
NP3.2	Atmospheric and climate complexity over wide ranges of scale	1					
		2		O (15)		P (XY)	
		3					
		4					
		5					
NP3.4	Geophysical Extremes: Scaling representations and their applications	1			O (15)		
		2				P (XY)	
		3					
		4					
		5					