

Daily Column

Today's column is dedicated to early career researchers. The EGU offers a platform for young scientists (YS) to become involved in interdisciplinary research in the Earth, planetary and space sciences, through sessions, social events and short courses at the General Assembly. At this year's conference there is more on offer than ever for the YS community and today is a bumper day, packed full of YS related activities.

Why not start off the day with a short course? With division short courses, careers workshops, courses to improve your presentation skills, medal lectures and sessions on education, science communication and public engagement, there is something for everyone throughout the week! As a bottom-up organisation, the EGU wants to know how it can make the YS experience better for you year round. At lunchtime today, join Sam Illingworth (the YS Programme Committee Representative) and I at the YS Forum, where you can learn what the EGU will be doing for YS in 2015. We also want to know how you think the YS experience can be improved. The YS Forum is your chance to make your voice heard! And remember, if it all gets too much, the YS Lounge offers a place to take a break and relax, while also offering opportunities to catch up with colleagues or meet the YS representative of your EGU division.

Laura Roberts

EGU Communications Officer and YS contact person at the EGU office

EGU Today helps you keep up with the many activities at the EGU General Assembly by highlighting sessions and events from the programme. If you have comments or questions, please email Bárbara Ferreira at media@egu.eu. The newsletter is also available online at www.egu2015.eu/egu_today.html.

The day's highlights at a glance

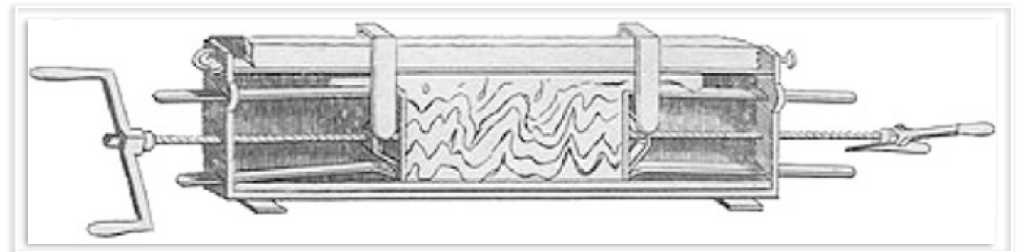
- **08:30** – Celebrating 200 years of modelling of geological processes (US2: Room B9) / Inverse problems, data assimilation, coupled initialisation, and impact of initial and model errors and predictability (NP5.1/AS4.14: Room B1) / Civil engineering applications of ground penetrating radar (GI3.1: Room B11) / Linking micro to macroscale field and experimental observations to faults and fault rock mechanics (TS1.2/EMRP4.6: Room B6)
- **10:30** – Mountains across the oceans: Caledonian, Variscan and Appalachian orogenies through time (TS6.2/GD5.6: Room B8)
- **13:30** – A Voyage through Scales – water in terrestrial systems (GL1: Room Y1)
- **15:30** – The thirsty 10 billion: are we managing? (GDB1: Room Y1) / Role of vegetation in soil conservation and hydrological hazards management (SSS2.12/BG4.2/GM4.5/HS12.5: Room B5)
- **All day** – Medal lectures (various rooms: see below) / Short courses & YS events (various rooms: see overleaf) / Meet EGU (EGU Booth)

Celebrating 200 years of modelling of geological processes

Two hundred years ago Sir James Hall laterally pushed together cloth pieces and clay in boxes, thus providing an explanation for folds on the east coast of Scotland. He was the first geologist to use analogue models as a tool for understanding geological processes and his work initiated the field of modelling in the Earth sciences. Today's Union Symposium will highlight the many achievements in numerical and analogue modelling since Hall's pioneering steps. Six lectures showcase historical developments, current impacts and possible future trajectories in modelling of structural geology, volcanology, microstructures, geomorphology, geodynamics, and planetary geology.

US2: 08:30–12:00 / Room B9

See also companion session – TS8.2: 13:30–17:00 / Room B9 & Blue Posters



Hall's machine to press beds of clay together. Credit: Hall, J., 1815: On the vertical position and convolutions of certain strata, and their relation with granite. Transactions of the Royal Society of Edinburgh 7, 79–108, Cambridge University Press.

A Voyage through Scales – water in terrestrial systems

A lecture by Kurt Roth, from the University of Heidelberg, Germany, on water's voyage through Earth's terrestrial systems, with a focus on soils and porous media. The session (GL1), for a general geoscientific audience, is taking place in **Room Y1 from 13:30 to 14:30**.

Today's medal lectures

- Arne Richter Award for Outstanding YS Lecture by Manuele Faccenda (ML5: 11:30–12:00 / Room G8)
- Alexander von Humboldt Medal Lecture by Hubert H. G. Savenije (ML1: 12:15–13:15 / Room Y1)
- Stephan Mueller Medal Lecture by Evgueni B. Burov (ML26: 14:00–15:00 / Room B9)
- Fridtjof Nansen Medal Lecture by Peter Janssen (ML12: 16:00–17:00 / Room Y4)
- Henry Darcy Medal Lecture by Nick van de Giesen (ML14: 19:00–20:00 / Room R1)
- Louis Néel Medal Lecture by Toshihiko Shimamoto (ML20: 19:00–20:00 / Room G8)
- Philippe Duhaufour Medal Lecture by Ingrid Kögel-Knabner (ML22: 19:00–20:00 / Room B14)
- Sergey Soloviev Medal Lecture by John C. Eichelberger (ML25: 19:00–20:00 / Room G9)

GeoCinema Highlights

Room GeoCinema



To Mars / Chasing a Comet – The Rosetta Mission / Landing on a Comet – The Rosetta Mission, 15:15–16:10



Taking the Earth's Temperature: Delving into Climates Past, 17:15–18:15

Meet EGU at the EGU Booth

- Division President of Natural Hazards (Giorgio Boni), 09:15–10:00
- Division Presidents of Solar-Terrestrial Sciences (Norma Crosby & Margit Haberleiter), 09:15–10:00
- Outreach Committee Chair & Division President of Geochemistry, Mineralogy, Petrology & Volcanology (Nicholas Arndt), 10:00–10:45
- Division President of Stratigraphy, Sedimentology & Palaeontology (Helmut Weissert), 10:45–11:30
- Division Presidents of Seismology (Charlotte Krawczyk & P. Martin Mai), 13:30–15:00
- Division President of Geosciences Instrumentation & Data Systems (Francesco Soldovieri), 13:30–14:15
- Division President of Geodynamics (Irina Artemieva), 14:15–15:00
- Executive Editors of Solid Earth (Fabrizio Storti & Charlotte Krawczyk), 14:15–15:00
- EGU President (Hans Thybo), 14:15–15:00
- Chief Editor of Earth System Dynamics (Axel Kleidon), 14:15–15:00
- Division President of Cryospheric Sciences (Jürg Schweizer), 15:45–16:30
- Division Presidents of Soil System Sciences (Artemi Cerdà & Saskia Keesstra), 13:30–14:15
- Editor-in-Chief of Annales Geophysicae (Christoph Jacobi), 15:45–16:30
- Division President of Planetary & Solar System Sciences (Özgür Karatekin), 16:30–17:15

The Assembly Online



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Short courses & young scientist events

- Oral presentation feedback round (SC33: 08:30–10:00 / Room B4)
- EGU young scientists forum (OM2: 12:15–13:15 / Room G8)
- Public engagement and outreach – science communication, case studies (SC27: 12:15–13:15 / Room B4)
- Climate workshop for young scientists: meet the editors (SC40: 15:30–17:00 / Room B7)
- Meet the experts – the future of solar-terrestrial research (SC44: 15:30–17:00 / Room B4)
- Open science goes geo – part I: research data (SC23: 17:30–19:00 / Room B1)
- Your career 1: adding value to your research experience (SC30: 17:30–20:00 / Room R4)
- Meet the master in geomorphology (SC46/GM11.1: 17:30–19:00 / Room G2)
- Computational tools to optimize spatial sampling (SC3/SSS0.12: 17:30–19:15 / Room B2)

Civil engineering applications of ground penetrating radar

This session is concerned with the state-of-the-art, research activity, and progress of GPR techniques in civil engineering.

**GI3.1: 08:30–12:00 / Room B11
& Red Posters**

Role of vegetation in soil conservation and hydrological hazards management

Among other issues, this session will discuss the contribution of vegetation to soil stability and the ecological and socio-economic consequences of soil bioengineering.

SSS2.12/BG4.2/GM4.5/HS12.5: 15:30–17:15 / Room B5 & Blue Posters

Mountains across the oceans: Caledonian, Variscan and Appalachian orogenies through time

The Caledonian, Variscan and Appalachian mountain belts once formed the largest orogenic system of Pangaea, but are now broken apart and distributed on both sides of the Atlantic Ocean. Co-organised with the Geological Society of America, this session gathers geologists, geophysicists and modellers interested in correlations of these ancient structures and their bearing on our understanding of Wilson Cycle plate margins.

TS6.2/GD5.6: 10:30–12:00 / Room B8 & Blue Posters



Image credit: Velio Coviello
imaggio.egu.eu

The thirsty 10 billion: are we managing?

This Great Debate, co-organised by the EGU and the AGU, will discuss global freshwater use and water security, one of the great challenges facing humanity today. What can we do to make sure that people have the water they need? What legacy do we want future generations to inherit in terms of water security? What are we doing right and what can we do better in order to manage this most essential resource? These and other questions will be debated today.

GDB1: 15:30–17:00 / Room Y1

Linking micro to macroscale field and experimental observations to faults and fault rock mechanics

Co-organised with the Geological Society of America, this session aims to bridge the gap between experimental and natural faults by bringing together experimental, field and geophysical investigations of fault growth, slip behaviour and its microstructural record.

TS1.2/EMRP4.6: 08:30–15:00 / Room B6 & Blue Posters

Inverse problems, data assimilation, coupled initialisation, and impact of initial and model errors and predictability

Session devoted to the presentation and discussion of methods for inverse problems and data assimilation, in ocean and atmosphere dynamics, solid earth geophysics, hydrology and, more generally, in all fields of geophysics. P. J. van Leeuwen (Reading University) and A. Weaver (CERFACS, Toulouse) are invited speakers

NP5.1/AS4.14: 08:30–12:00 and 13:30–15:00 / Room B1 & Yellow Posters

What's on tomorrow

- Geocomplexity and scales (US1: 08:30–12:00 / Room Y1)
- A Voyage through Scales – archives of the continental crust (GL2: 13:30–14:30 / Room Y1)
- EGU Award Ceremony (US0: 17:30–19:00 / Room Y1)