**Is global economic growth compatible with a habitable climate?**

The key question considered by IPCC’s Working Group 3 (on mitigation of climate change) was how to decarbonise the global economy. It considered economic scenarios up to the year 2100 compatible with several representative carbon pathways and assumed continued exponential global economic growth. Depending on the scenario, over 90% of the energy would be produced by technologies that do not yet exist. Even at current levels of energy consumption, decarbonisation will be challenging. These themes provide the backdrop for this Great Debate.

**Chasing a comet with the ESA Rosetta mission**

Matt Taylor, Project Scientist for the European Space Agency’s Rosetta mission, will talk about the spacecraft’s trip to comet 67P/Churyumov–Gerasimenko, and some of the mission’s achievements and discoveries.

**Interplays between the solid Earth and the hydrosphere, atmosphere, and biosphere**

This Union-wide session will feature contributions from all fields that track the interplay between the solid Earth on the superficial Earth and reciprocally, at all timescales. There will also be presentation focusing on multidisciplinary approaches that aim at quantifying the biotic and climatic responses to tectonics.

**Short courses & early career scientist events**

- **Teaching Hydrology** (SC31/HS11.43: 08:30–12:00 / Room -2.85)
- **EGU Early Career Scientists’ Forum** (FAN5: 12:15–13:15 / Room L7): your opportunity to provide feedback on ECS activities and be more involved with the EGU!
- The ins and outs of open access publishing (SC3: 13:30–15:00 / Room 0.31)
- How to pitch your research to a journalist or editor (SC45: 15:30–17:00 / Room -2.61)
- Soil mapping and process modelling at diverse scales (SC18/SSS0.6: 15:30–17:00 / Room -2.85)
- Meet the Master (SC12/GM13.3: 17:30–19:00 / Room -2.85)
- Climate workshop for early career scientists: Meet the editors (SC48: 17:30–19:00 / Room 0.31)
- Using ice core chronologies: dos and don’ts (SC39: 19:00–20:00 / Room 0.31)

**Today’s medal lectures**

- Ian McHarg Medal Lecture by Helen Glaves (ML17: 08:30–09:30 / Room L1)
- Lewis Fry Richardson Medal Lecture by Peter L. Read (ML21: 10:30–11:30 / Room L6)
- Beno Gutenberg Medal Lecture by Roel Snieder (ML10: 11:00–12:00 / Room K2)
- Milutin Milankovic Medal Lecture by James C. Zachos (ML24: 11:00–12:00 / Room E2)
- Robert Wilhelm Bunsen Medal Lecture by Tetsuo Irifune (ML29: 11:00–12:00 / Room L7)
- Arne Richter Award for Outstanding Young Scientists Lecture by Bert Wouters (ML5: 12:00–12:30 / Room L3)
- Alfred Wegener Medal Lecture by John P. Burrows (ML2: 12:15–13:15 / Room E1)
- Vladimir Ivanovich Vernadsky Medal Lecture by Carlos M. Duarte (ML34: 13:30–14:30 / Room 1.61)
The life cycle of volcanic ash: field, experimental and numerical investigations

This session aims to bring together observational, experimental and theoretical investigations conducted on volcanic ash concerning all aspects of its life cycle. This includes the generation mechanism, detection and quantification in clouds and plumes, transport in ash clouds, interaction with surrounding gas and ash, and the consequences of its distribution and related impact (on aviation, lung diseases, etc). The session is co-sponsored by the training network VERTIGO and includes Matthew Watson (U. Bristol, UK) and Adrian Hornby, (U. Liverpool, UK) as invited speakers.

IE2.4/GMPV5.1/NH2.6: Orals / 08:30–10:00 / Room -2.20; Posters / Attten. 17:30–19:00 / Hall X2

State of the cryosphere: observations and modelling

This session presents the latest results of changes in the cryosphere from satellite, and terrestrial observations and modelling studies investigating the origin and explanation for these changes. It includes an Arne Richter Award for Outstanding Young Scientists Lecture.

CR1.1: Orals / 08:30–12:30 / Room L3; Posters / Attendance 17:30–19:00 / Hall X4

Informatics in oceanography and ocean science

The session presents the state-of-the-art information systems in oceanography, interoperability, data circulation and services, as well as education in ocean science. It includes the Ian McHarg Medal Lecture by Helen Glaves.

E5S1.1: Orals / 08:30–12:30 / Room L1; Posters / Attendance 17:30–19:00 / Hall A

Integrated research infrastructures and services in geosciences

The goal of this session, promoted by EPOS, is to discuss the integration of existing data infrastructures and data services to specific communities in order to build the integrated multidisciplinary services for different users and stakeholders.

SM1.7: Orals / 13:30–17:00 / Room 0.88; Posters / Attendance 17:30–19:00 / Hall X2

Penck lecture

Pierre Valla (ETH Zurich), who received the Geomorphology Division Outstanding Young Scientists Award 2016, will deliver a talk on the impact of glaciation on mountain erosion and topography.

LR53: Orals / 12:15–13:15 / Room L4/5

Science and technology for the Asteroid Impact & Deflection Assessment (AIDA) mission

The AIDA mission, consisting of NASA's Double Asteroid Redirection Test (DART) and ESA's Asteroid Impact Mission (AIM), is currently under study. This session invites contributions about the expected scientific output of the AIDA mission, supporting ground-based observations, modeling, and new technology and instrumentation for asteroid exploration.

PS1.5: Orals/ 15:30–17:15 / Room K2; Posters / Attendance 17:30–19:00 / Hall X4

Intrasalt structure and composition: what do we know, what might we want to know and why might it be important?

Insights into salt structures are crucial for understanding the growth of salt diapirs, negotiating drilling hazards when exploring for hydrocarbons or minerals, and improving seismic reflection imaging in the presence of salt. This session will discuss the status of the field and new avenues forward for understanding intrasalt structure and composition.

TS2.4/ERE1.14: PICO / 10:30–12:00 / PICO spot 2

Exhibition and EGU & Friends

Exhibition booths (open Mon–Thu, 09:00–18:00 and Fri, 09:00–17:00) for companies, publishers, research facilities, and scientific organisations, are scattered throughout the Brown (basement), Yellow (ground floor), and Green (first floor) Levels. The EGU & Friends exhibition area (same opening hours) in Hall X2, Brown Level, is the place to go to learn more about the EGU and its partner organisations.

What’s on tomorrow

- Deep geofluids: the bringers of change (US2: 15:30–19:00 / Room L6)
- Public peer review in open access publications: pros and cons (GDB6: 15:30–17:00 / Room E1)
- Active Planet lectures: Solar System (TL5: 13:30–15:00 / Room 0.93) and Liquid Earth (TL3: 15:30–17:00 / Room 0.93)