



CRESCENDO GENERAL ASSEMBLY

15-17 MARCH 2021

Programme Agenda

10.30 (CET) Introduction to the GA Science Conference - Colin Jones

Science Talks Session A 10.30-12.00 (CET) Monday 15 March (UK 09.30-11.00)

Chair: Colin Jones, University of Leeds

1. *How well do the latest Earth System Models capture the behaviour of biogenic secondary organic aerosol in the atmosphere?* - **Cat Scott, University of Leeds**
2. *The role of chemistry-aerosol-cloud interactions in the present-day forcing by methane* - **Fiona O'Connor, Met Office Hadley Centre**
3. *Methane in the climate system -- from the last glacial to the future* - **Thomas Kleinen, Max Planck Institute for Meteorology, Hamburg, Germany**
4. *Dust induced atmospheric absorption improves tropical precipitations in climate models* - **Yves Balkanski, Université Paris-Saclay**
5. *Marine aerosol in CRESCENDO ESMs : evaluation and impact on radiative forcing* - **Dirk Olivié, Norwegian Meteorological Institute**
6. *Analysis of the Land carbon cycle in the IPSL-CM6: from a statistical down-regulation of photosynthesis to a full carbon - nitrogen implementation* - **Philippe Peylin, LSCE**
7. *CRESCENDO Diagnostics for ESMValTool* - **Klaus Zimmermann, SMHI**

Science Talks Session B 13.00-14.30 (CET) Monday 15 March (UK 12.00-13.30)

Chair: Fiona O'Connor, Met Office UK

1. *Evaluating Terrestrial Biological Nitrogen Fixation in CMIP6 Earth System Models* - **Taraka Davies-Barnard, University of Exeter**
2. *Impact of climate change on groundwater : a global assessment with the CNRM climate models* - **Maya Costantini, CNRM, Université de Toulouse, Météo-France, CNRS, Toulouse, France**
3. *Permafrost in CMIP6* - **Eleanor Burke, Met office**
4. *Quantifying process-level uncertainty contributions to TCRE and carbon budgets for meeting Paris Agreement climate targets* - **Chris Jones, Met Office Hadley Centre**

5. *Aridity modulates the climatological carbon cycle dynamics* - **Sujan Koirala, Max Planck Institute for Biogeochemistry**
6. *Using UKESM1 to model the climate response to reductions in emissions caused by COVID-19* - **Jeremy Walton, Met Office Hadley Centre, Exeter, UK**
7. *Global climate response to idealized deforestation in CMIP6 models* - **Victor Brovkin, Max-Planck Institute for Meteorology**

Science Talks Session C 10.30-12.00 (CET) Tuesday 16 March (UK 09.30-11.00)

Chair: Peter Cox, University of Exeter

1. *Ocean biogeochemistry projections from CMIP5 to CMIP6: what's new and have we learnt anything?* - **Lester Kwiatkowski, LOCEAN Laboratory, CNRS, Sorbonne Université**
2. *Southern Ocean convection shutdown controls potential for long-term climate warming by greenhouse gases* - **Ada Gjermundsen, Norwegian Meteorological Institute**
3. *Application of a genetic algorithm to locally optimize emergent constraints of the future North Atlantic Carbon Uptake* - **Nadine Goris, NORCE Climate and Bjerknes Centre for Climate Research**
4. *Quantification of Chaotic Intrinsic Variability of Sea-Air CO₂ Fluxes at Interannual Timescales* - **Sarah Berthet, CNRM (CNRS/Météo-France)**
5. *Tracking improvement in simulated marine biogeochemistry between CMIP5 and CMIP6* - **Roland Séférian, CNRM (Météo-France)**
6. *Patterns of ocean interior remineralisation and their change under climate change in CMIP6 models* - **Andrew Yool, National Oceanography Centre, Southampton, UK**
7. *Irreversible changes in the global methane cycle under the heavy-mitigation SSP1-2.6 scenario* - **Gerd Folberth, UK Met Office Hadley Centre**

Science Talks Session D 13.00-14.30 (CET) Tuesday 16 March (UK 12.00-13.30)

Chair: Pierre Friedlingstein, University of Exeter

1. *EFFECTS OF TEMPERATURE OVERSHOOT SCENARIOS IN THE HIGH NORTHERN LATITUDES* - **Philipp de Vrese, Max Planck Institute for Meteorology**
2. *Emergent constraints on climate sensitivities* - **Mark Williamson, University of Exeter**
3. *Quantifying progress of climate models across different CMIP phases* - **Lisa Bock, Deutsches Zentrum fuer Luft- und Raumfahrt (DLR), Germany**
4. *Projecting exposure to extreme climate impact events across six event categories and three spatial scales* - **Stefan Lange, Potsdam Institute for Climate Impact Research (PIK)**
5. *ESMValTool v2.0 – Analyzing CMIP models made easy* - **Axel Lauer, DLR**
6. *ESMValTool 2.0 - technical improvements in the new version* - **Valeriu Predoi, NCAS-CMS University of Reading**

7. *Impact of changes in the greenhouse gas concentrations from CMIP5 to CMIP6* - **Klaus Wyser, SMHI**

Science Talks Session E 10.30-12.00 (CET) Wednesday 17 March (UK 09.30-11.00)

Chair: Victor Brovkin, MPI-Met

1. *Impact of riverine nutrients and carbon on future projections of marine biogeochemistry* - **Shuang Gao, Geophysical Institute, University of Bergen**
2. *Constraining Uncertainties in Effective Climate Sensitivity and Future Gross Primary Production* - **Manuel Schlund, German Aerospace Center (DLR)**
3. *Evaluation of modelled methane emissions over northern wetlands* - **Yao Gao, Finnish Meteorological Institute**
4. *Land-surface feedbacks on temperature and precipitation in CMIP6-LS3MIP projections* - **Franco Catalano, ENEA**
5. *Assessing climate states and feedbacks in two versions of NorESM2* - **Øyvind Seland, Norwegian Meteorological Institute**
6. *Robustness and uncertainty in temperature and precipitation projections in CMIP* - **Ruth Lorenz, ETH Zurich**
7. *Evaluating modelled wetland methane emissions in Northern Europe* - **Tuula Aalto, Finnish Meteorological Institute**

Science Talks Session F 13.00-14.30 (CET) Wednesday 17 March (UK 12.00-13.30)

Chair: Ruth Lorenz, ETH Zurich

1. *Carbon cycle response to temperature overshoot beyond 2 °C – an analysis of CMIP6 models* - **Irina Melnikova, IPSL CNRS**
2. *Quantifying the impact of model resolution on the precipitation associated to ENSO, PNA and NAO in historical period and future scenarios* - **Ramón Fuentes Franco, Rossby Centre, SMHI**
3. *Chemistry and Aerosol feedbacks in CRESCENDO Earth system models* - **Bill Collins, University of Reading**
4. *Evaluation of ocean dimethylsulfide concentration and emission in CMIP6 models* - **Josué Bock, CNRM - Météo-France**
5. *Attributing radiative forcing to driving emissions in CRESCENDO Earth system models* - **Gillian Thornhill, University of Reading**
6. *An advanced representation of the oceanic biological carbon pump: M4AGO in HAMOCC* - **Jöran März, Max Planck Institute for Meteorology**
7. *What remains challenging to simulate historical ocean deoxygenations?* - **Yohei Takano, Max Planck Institute for Meteorology**

14.25-14.45 (CET) Summary and closing remarks of the General Assembly - Colin Jones

Joining details for the conference:

<https://ncas.zoom.us/j/95291547779?pwd=cFNuaDR0L29UWUNRdHZ5MkhLNE1UZz09>

Meeting ID: 952 9154 7779

Passcode: 301610