Agenda for GCE2 (2nd Regional GEOS-Chem Europe User's Meeting)
14-16 August 2023
https://geoschem.github.io/gce2.html
FINAL (updated 28 July 2023)

Time allocation of talks:
GEOS-Chem overview talks: 20 min (15-16 min talk; 4-5 min Q&A)
Keynote talks: 30 min (25 min talk, 5 min Q&A)
Science talks: 15 min (12 min talk, 3 min Q&A)
Poster summaries: 1 min

Day 1, Monday 14 August
Location: Room G22, North-West Wing building

Day 1 Afternoon Session 1: Meeting and Model Overview
Session Chair: Karn Vohra, UCL
Slides loaded by Eleanor Gershenson-Smith

13:30-14:00	Registration
14:00-14:20	Welcome and meeting overview, Eloise Marais, UCL
14:20-14:40	GEOS-Chem Model Overview, Randall Martin, WUSTL
14:40-15:00	GEOS-Chem Technical Overview, Melissa Sulprizio, Harvard
15:00-15:20	GCHP Demonstration, Killian Murphy, York

15:20-15:50 Tea/Coffee Break

Day 1 Afternoon Session 2: Emissions
Session Chair: Matthew Rowlinson, York
Slides loaded by Eleanor Gershenson-Smith

15:50-16:10	European Emissions for GEOS-Chem, Mat Evans, York
16:10-16:25	Assessing HTAP NOx Emissions in Cities in South and Southeast Asia using TROPOMI, Gongda Lu, UCL
16:25-16:40	Implementing an improved parameterisation for inorganic iodine emissions in GEOS-Chem, Ryan Pound, York
16:40-16:55	An inverse modelling framework to estimate the GHG emissions for the UK, Alex Kurganskiy, Edinburgh.
16:55	Adjourn for the day

Day 2, Tuesday 15 August
Location: Jeremy Bentham Room, Portico building

Day 2 Morning Session 1: Models to Motivate Action
08:30-09:00 Tea/Coffee available

Session Chair: Alex Kurganskiy, Edinburgh
Slides loaded by Gongda Lu

9:00-9:30	**KEYNOTE**: The use of atmospheric chemistry models in air pollution activism, Jamie Kelly, Centre for Research on Energy and Clean Air (CREA)

9:30-9:45 Investigating climate co-benefits using GEOS-Chem adjoint sensitivities, Omar Nawaz, GWU

09:45-10:00 Early deaths, asthma exacerbation and cancer risks linked to air pollution from each major oil and gas lifecycle stage in the US, Karn Vohra, UCL

10:00-10:15 Evaluation of the atmospheric impact of supersonic emissions from the SCENIC project on a 2050 atmosphere, Jurriaan van 't Hoff, TU Delft

10:15-10:30 Impacts of megaconstellation satellite launches and end-of-life satellite disposal on stratospheric ozone and climate, Connor Barker, UCL

10:30-10:40 Poster summaries (1 min each):

Modeling biomass burning impacts on air quality in Canada, Samaneh Ashraf, UdeM

Spatio-temporal variability of atmospheric mercury over India by using ground-based observations and GEOS-Chem model simulations, M.Chakradhar Reddy, IIT-Madras

Using GEOS-Chem for retrieval of vertical profiles of atmospheric composition over Central London, Eleanor Gershenson-Smith, UCL

Exploring the impact of biogenic and pyrogenic emissions in South America with GEOS-Chem and satellite data, Susie Shihan Sun, Edinburgh

10:40-11:10 Tea/Coffee break [with GCST Helpdesk]

Day 2 Morning Session 2: Particles Great and Small

Session Chair: Hansen Cao, York
Slides loaded by Nana Wei

11:10-11:30 **KEYNOTE**: Plastic aerosols - what do we know?, Stephanie Wright, Imperial College London

11:30-11:40 Advances in Simulating the Global Spatial Heterogeneity of Air Quality using GCHP and Its Implications for the Relation of AOD with $PM_{2.5}$, Dandan Zhang, WUSTL

11:40-12:00 Porting GEOS-Chem Chemistry to External Models, Lizzie Lundgren, Harvard

12:00-12:10 Poster summaries (1 min each):

Exploring marine boundary layer halogen chemistry using GEOS-Chem, Amy Lees, York

Global simulation of tropospheric halogen multiphase chemistry, Hansen Cao, York

Development of versatile Python software to retrieve tropospheric vertical profiles of NO2 and ozone from satellite observations, Gongda Lu, UCL

The impact of diurnal variation in African wildfires on atmospheric chemistry, Haolin Wang, Sun Yat-sen U.

Climate effect of biomass burning aerosol from key biomass burning regions, Shuaiyi Shi, Edinburgh

12:20-13:50: Lunch break.

Day 2 Afternoon Session 1: Modelling to Inform Environmental Policy

Session Chair: Connor Barker, UCL
Slides loaded by Gongda Lu

13:50-14:10 **KEYNOTE**: How the UK Department for the Environment, Food and Rural Affairs (DEFRA) uses air quality models to inform policy, Alison Davies, DEFRA

14:20-14:35 Emerging capabilities for GEOS-Chem Meteorological datasets, Saptarshi Sinha, WUSTL

14:35-14:50 Sensitivity of Air Quality (AQ) in Eastern Canada to Transboundary Pollution and Meteorology: Understanding Potential Climate-AQ Feedbacks, Robin Stevens, UdeM.

14:50-15:15 Present-day and next mid-century estimates of global aviation impacts on air quality, Flávio, TU Delft

15:05-15:20 Effects of model resolution on simulated air quality impacts from aviation, Seb Eastham, MIT

15:20-15:35 UK public health and ecosystem benefits from adopting technically feasible emissions controls throughout Europe, Eloise Marais, UCL

Day 2 Afternoon Session 2: Posters and Networking

15:35-18:00 Poster session and networking with drinks and snacks

Day 3, Wednesday 16 August
Location: Jeremy Bentham Room, Portico building

Day 3 Morning Session 1: Tropospheric composition (mostly ozone) part 1
08:30-09:00 Tea/Coffee available

Session Chair: Susie Shihan Sun, Edinburgh
Slides loaded by Connor Barker

9:00-9:30 **KEYNOTE**: The role of atmospheric non-linearities in understanding aviation emissions' impacts, Irene Dedoussi, TU Delft

9:30-9:45 Why is tropospheric ozone around 40 ppbv?, Mat Evans, York

9:45-10:00 Why is background ozone over East Asia so high?, Nadia Kathryn Colombi, Harvard

10:00-10:15 Evaluation of GEOS-Chem vertical profiles of nitrogen dioxide (NO_2) and ozone (O_3) using cloud-sliced TROPOMI columns, Bex Horner, UCL

10:15-10:35 Meeting photo

10:35-11:00 Tea/Coffee break [with GCST Helpdesk]

Day 3 Morning Session 2: Tropospheric composition (mostly ozone) part 2

Session Chair: Gongda Lu, UCL
Slides loaded by Connor Barker

11:00-11:15 The rise and rise of atmospheric methane: an unfolding story about hotspots and wet spots, Paul Palmer, Edinburgh

11:15-11:30 Implementation of an observationally-constrained nitrate photolysis parameterisation and the impact on tropospheric ozone, Mathew Rowlinson, York

11:30-11:45 Reactive nitrogen and ozone in the global upper troposphere: Insights from historic DC8 aircraft campaigns and GEOS-Chem, Nana Wei, UCL

11:45-11:55 Closing remarks, Eloise Marais, UCL

11:55 Meeting Adjourns