Agenda for GCE3 (3rd Regional GEOS-Chem Europe User's Meeting)
18-20 August 2025
https://geoschem.github.io/gce3.html

Talk time allocations:
GEOS-Chem overview talks: 20 min (15-16 min talk; 4-5 min Q&A)
Keynote talks: 30 min (25-26 min talk, 4-5 min Q&A)
Science/Software engineer talks: 15 min (12-13 min talk, 2-3 min Q&A)
Poster summaries: 1 min

Day 0, Monday 18 August
Location: Malet Place, Engineering Building, Gower Street

17:00 Early career event (details forthcoming)
17:00 Ice Breaker
17:30 Grant Writing Workshop
18:45 Bloomsbury Bowling

Day 1, Tuesday 19 August
Location: Gideon Scheier LT room 124, Bentham House (UCL Laws), Endsleigh Gardens

Day 1 Morning Session 1: Model Overview and Opening Talks
Session Chair: Colette Heald
Slides loaded by Connor Barker

08:30-09:00 Registration

09:00-09:20 Welcome. Meeting and GEOS-Chem Model Overview, Eloise Marais, UCL

09:20-09:40 Broadening Scope of GEOS-Chem, Seb Eastham, Imperial

09:40-09:55 GEOS-Chem Software Engineers / Support Team update, Bob Yantosca, Harvard

09:55-10:10 Chemical uncertainties in chemistry transport modelling, Mat Evans, York Uni

10:10-10:25 Investigating increasing levels of carbon monoxide across southern extratropical latitudes, Clara Nussbaumer, ETH Zurich

10:25-10:30 **POSTER SUMMARIES:**

Inverse modeling of satellite and ^{13}C observations highlights the role of wet tropics in driving the 2020–2022 methane surge, Zhen Qu, North Carolina State Uni

Climate impact of atmospheric methane removal strategies, Qimin Sun, U. Edinburgh

Implementation of the Global Forest Fire Emissions Prediction System in GEOS-Chem, Timothé Payette, Montréal Uni

10:30-11:00: Tea/Coffee Break Provided, Put up posters

Day 1 Morning Session 2: Air quality and atmospheric composition
Session Chair: Paul Griffiths
Slides loaded by Bex Horner

11:00-11:30 **KEYNOTE**: Using global and regional climate models to estimate the impacts of climate change and urbanisation on health, Clare Heaviside, UCL

11:30-11:45 Impact of particulate matter reduction on rising surface ozone pollution in India, Gopikrishnan Sreerekha Gopikrishnan, IIT Kharagpur

11:45-12:00 Multiphase HONO formation pathways in Central London, Eleanor Gershenson-Smith, UCL

12:00-12:15 Improved surface NO_2 estimates over India using satellite retrievals and modelling, Ardra Divakaran, IIT Delhi.

12:15-12:20 **POSTER SUMMARIES:**

Characterizing the air quality and health impacts from oil and gas emissions in Mexico using GCHP, Omar Nawaz, Cardiff Uni.

Future projection of global air pollution in 2060, Hiroo Hata, AIST

Modelling southern Africa air pollution, Mbavhalelo Maliage, U. York

Assessing the need for heterogeneous production of small acids in GEOS-Chem using DC8 aircraft observations, Huilin Zhan, UCL

12:20-14:00: Put up posters and Lunch (plenty of options in Fitzrovia, Bloomsbury and beyond)

Day 1 Afternoon Session 1: ECMWF / GEOS-Chem gas-phase chemistry (mostly halogens!)

Session Chair: Seb Eastham
Slides loaded by Eleanor Gershenson-Smith

14:00-14:30 **KEYNOTE**: ECMWF products and activities of appeal to the GEOS-Chem community Vincent-Henri Peuch, ECMWF

14:30-14:45 Understanding chlorine chemistry in GEOS-Chem, Amy Lees, U. York

14:45-15:00 The role of iodine chemistry in a changing climate, Ryan Pound, U. York

15:00-15:15 The importance of speciated iodine aerosol in gas-phase reactive iodine abundance, Alli Moon, U. Washington

15:15-15:30 Impacts of aromatic peroxy radical chemistry on atmospheric ozone, Stephen MacFarlane, U. Wollongong

15:30-15:35 **POSTER SUMMARIES:**

Present day impacts of road transport on atmospheric chemistry and public health in India using GEOS-Chem, Karn Vohra, U. Birmingham

Impacts of the GAINS LRTAP MTFR emission scenario in Europe for 2040, Coralina Hernández Trujillo, CIEMAT

Spatial and diurnally varying lightning NO_x production rates for use in GEOS-Chem, Bex Horner, UCL

A GPU-Accelerated ALE Solver for Low-Diffusion Plume Transport, Oliver Marx, Imperial

15:35 Group Photo

Day 1 Afternoon Session 2: Posters, Refreshments and Networking

15:45-17:30 Poster Session, Hub on the First floor of Bentham House

17:30 Take down posters, Conclusion of Day 1

Day 2, Wednesday 20 August
Location: Gideon Scheier LT room 124, Bentham House (UCL Laws), Endsleigh Gardens

Day 2 Morning Session 1: Biosphere-Atmosphere Interactions

Session Chair: Zhen Qu
Slides loaded by Oliver Marx

09:15-09:45	**KEYNOTE**: Modelling atmospheric compositions with the EMEP atmospheric chemistry transport model, Massimo Vieno, UKCEH
09:45-10:00	Integration of atmospheric chemistry and terrestrial biogeochemistry to advance the understanding of global nitrogen cycle, Cheng Gong, Max Planck Institute for Biogeochemistry
10:00-10:15	Evaluating the effects of variability in biomass burning emission inventories on modeled smoke concentrations: Insights from the 2019 and 2021 Canadian wildfire seasons, Samaneh Ashraf, Montréal Uni
10:15-10:30	Influence of humidity-dependent stomatal conductance of VOCs on ozone and secondary organic aerosols (SOA), Connor Barker, UCL

10:30-11:00 Tea/Coffee provided

Day 2 Morning Session 2: Persistent Pollutants

Session Chair: Mat Evans
Slides loaded by Connor Barker

11:00-11:30	**KEYNOTE**: Met Office dispersion modelling tools for pollen and air quality, Lucy Neal, UK Met Office
11:30-11:45	PFAS species in the Arctic, Freja F. Oesterstroem, Aarhus Uni.
11:45-12:00	Development and applications of the AWS-based Integrated Methane Inversion (IMI) tool for quantifying methane emissions with satellite observations, Daniel Varon, MIT
12:00-12:15	High-resolution modelling of greenhouse gases in the Greater Toronto Area using WRF-GEOS-Chem, Christian DiMaria, U. Toronto
12:15-12:30	Modelling the atmospheric degradation of HFO-1234ze, Beth Killen, UNSW Sydney
12:30-12:45	Sectoral top-down emission estimates using TEMPO and LEO satellite observations, Zhen Qu, North Carolina State Uni.

12:00-13:30: Lunch (plenty of options in Fitzrovia, Bloomsbury and beyond).

Day 2 Afternoon Session: Multiphase Chemistry

Session Chair: Daniel Varon
Slides loaded by Bex Horner

13:30-14:00	**KEYNOTE**: Modelling the sources and fate of reduced sulfur compounds in the marine atmosphere, Alex Archibald, UK NCAS and U. Cambridge
14:00-14:15	Global impacts of organic aerosol phase state, Yumin Li, ETH Zurich
14:15-14:30	Updates on wet scavenging and its impacts on horizontal and vertical aerosol distributions, Gan Luo, SUNY-Albany
14:30-14:40	Closing Remarks (Seb + Eloise)
14:45	Meeting adjourns