10*th* EMAC Symposium

May 31 – June 2, 2021

Agenda

Day 1 (May 31)	
	Chair: Simon Rosanka
9:00 – 9:30	Welcome & Talk 1: Patrick Jöckel (DLR) News and Views of the MESSy development
9:30-10:00	Invited Talk 1: Juan Anel (Universidade de Vigo) Climate models: Accessibility, Reproducibility and Code Quality
10:00-10:25	**Coffee break (in wonder.me)**
10:25-10:55	Lightning talks 1
10:55-12:15	Poster session 1
12:15 -13:00	**Lunch break**
	Chair: Laura Stecher
13:00-13:25	Talk 2: Astrid Kerkweg (FZJ): *The MESSy-basemodel family and its new kid MESSy DWARF* & Group photo
13:25-13:55	Lightning talks 2
13:55-15:20	Poster session 2
15:20-15:45	**Coffee break (in wonder.me)**
15:45-16:15	Invited Talk 2: Ivonne Anders (DKRZ) No fear of data - How data management supports research
16:15-17:00	**Icebreaker (in wonder.me)**
Day 2 (June 1)	
	Chair: Moha Diallo
9:00 – 9:30	Invited Talk 3: Alina Fiehn (DLR) Regional transport and chemistry modeling in support of aircraft measurements
9:30 – 10:00	Invited Talk 4: Marta Abalos (University Madrid) Future trends in upper troposphere / lower stratosphere tracer transport
10:00-10:15	**Coffee Break (in wonder.me)**
10:15-10:35	Talk 3: Holger Tost (JGU Mainz) *Developments at JGU: Ensembles, Vegetation & Aeropt*
10:35-11:00	Lightning talks 3
11:00-12:15	Poster session 3

12:15 -13:00	**Lunch Break**
	Chair: Sergey Gromov
13:00-13:25	Talk 4: Matthias Nützel (DLR): *Developments in the radiation infrastructure: updates of cloudopt, aeropt and rad &* Edward Charlesworth: *Lagrangian transport modeling in EMAC*
13:25-13:55	Lightning talks 4
13:55-15:20	Poster session 4
15:20-15:45	**Coffee Break (in wonder.me)**
15:45-16:15	Invited talk 5: Harald Bönisch (KIT): *The IAGOS(-CARIBIC) platform – What can be learned from (regular passenger) aircraft observations?*
16:15-18:00	**Social meeting (in wonder.me)**
Day 3 (June 2)	
	Chair: Ole Kirner
9:00 – 9:30	Invited Talk 6: Ulrike Lohmann (ETHZ) Overview of modelling activities with ECHAM/ICON-HAM at ETH Zurich
9:30 – 9:55	Talk 5: Mattia Righi (DLR): *Coupling aerosols to (cirrus) clouds in EMAC-MADE3 &* Feijia Yin (TU Delft)*: Developments for applications in air traffic*
9:55-10:20	**Coffee break (in wonder.me)**
10:20-10:50	Lightning talks 5
10:50-12:20	Poster session 5
12:20 -13:00	**Lunch break**
13:00-14:00	General Discussion
14:00 – 14:30	Wrap up

Presenter and Technical Information

All Sessions (Talks & Poster Sessions) will be hold via **Zoom**
Link: https://lmu-munich.zoom.us/j/95975351685?pwd=ZFh2cldXSGlZTzdMUDh0cm1ORWNlUT09
All coffee breaks will be hold via **wonder.me**
Link: **https://www.wonder.me/r?id=3a8bed9e-ee13-413e-a5dc-ace1b5223e1b**
Both can be run via the browser, but we recommend to install the Zoom client.
(*Links are accessible before the meeting to allow for technical tests*)

Lightning Talks and Poster Sessions:

Each poster presenter has a 2-minute time-slot during the „lightning talks“ preceding the poster session to present her/his work using 1 slide. The format can be png or jpg, and it shall be send as Lightning_SessionX_LASTNAME_*.png/jpg to the organizing committee until Wednesday, May 26, (via upload to the link given below, or via email: emacsymposium2021@listserv.dfn.de **).**
We strongly advise to show no more than 1 Figure on the slide.

During the Poster Session, each presenter has a Breakout room, that participants can visit for discussion. Participants can change freely between breakout rooms during the session. We recommend that the presenter prepares additional material for display in the poster sessions, keeping in mind that participants hop between sessions (e.g., in the format of a 1-slide poster). This material will be shared individually by the presenters.
In addition, the material will be collected on a password protected site, and we encourage you to upload your Poster/Presentation prior to your poster session, so participants can look at it beforehand, enabling focused discussions. Please upload your pdf file as SessionX_LASTNAME_***.pdf in the folder of your poster session:
https://syncandshare.lrz.de/getlink/fi88R7RVK7rcuJs7zd13KeJt/
Password: MESSy2021

General Discussion:

The discussion on Wednesday will be split up in one part for topics of general concern (lead by P. Jöckel), and a second part with breakout groups for specific topics. Please suggest topics to the organizing committee (via emacsymposium2021@listserv.dfn.de).

Icebreaker / Social activities:

To enable connecting between people during those challenging times, on Monday and Tuesday evening we will hold social events in the afternoon. This will include a quiz and time for informal chatting on the interactive platform *wonder.me*

Poster session 1

0	Patrick Jöckel	News and Views of the MESSy development
1	Mohamadou Diallo	Uncertainties in the response of stratospheric circulation and ozone to the Pinatubo eruption from climate models and observations
2	Hiroshi Yamashita	Multi-objective flight trajectory optimization in AirTraf
3	Stefan Versick	Accelerating I/O in ESMs using on demand filesystems
4	Christof Beer	Modelling mineral dust emissions and atmospheric dispersion with MADE3 in EMAC
5	Theodoros Christoudias	UTLS new particle formation with the NAN submodel
6	Sigrun Matthes	Analysis of aviation impacts on reactive species with MECO(n)
7	Konstantin Schaar	COsmogenic PROXies (COPROX): Simulations of the Atmospheric Transport and Deposition of Cosmogenic Isotopes as Proxies of Solar Activity and Atmospheric Dynamics
8	Thomas Reddmann	Impact of relativistic electrons on the chemistry in the middle atmosphere
9	Matthias Kohl	New Submodel EVER, explosive volcanic eruptions and UTLS aerosols

Poster session 2

0	Astrid Kerkweg	The MESSy-basemodel family and its new kid MESSy DWARF
1	Simon Rosanka	Oxidation of low-molecular weight organic compounds in cloud droplets: global impact on tropospheric oxidants
2	Robert Eerenstein	Planned comparison of stratospheric H2O feedback in Lagrangian CLaMS and standard EMAC simulations
3	Swen Metzger	On the influence of aerosol hygroscopic growth on meteorology using model data — from global to urban scales
4	Markus Kilian	Updates of BIOBURN/ONEMIS for better representation of NOx emissions in MECO(n)
5	Joachim Fallmann	Implementation of TERRA_URB in MECO(n)
6	Monica Sharma	Modelling aircraft exhaust plumes with MADE3 double-box approach
7	Anna Nickl	Global modelling of methane isotopologues to investigate the renewed methane increase after 2007 and the simultaneous decline in d13C(CH4)
8	Christoph Brühl	Stratospheric aerosol, new features (based on 2.54) and new satellite data
9	Andreas Bartenschlager	Tracer transport from the Asian Monsoon Anticyclone to the stratosphere in idealized simulations (EMIL)

Poster Session 3

0	Holger Tost	Recent developments for EMAC and MECO(n) from JGU Mainz
1	Sergey Gromov	How well do we know our simulated tropospheric averages? Answers from the new submodel for domain integrals calculation and further diagnostic
2	Stergios Misios	Simulating effects of the 774 AD solar proton event on atmospheric electricity
3	Kerstin Hartung	Advancing MESSy towards Exascale – speeding up computations and writing of output
4	Jingmin Li	Clustering of global aerosols simulated with EMAC-MADE3 using a machine learning algorithm K-Means
5	Domenico Taraborelli	Atmospheric production of formic acid mediated by warm clouds
6	Roland Eichinger	An orographic gravity wave extension for EMAC and its effect on dynamics
7	Astrid Kerkweg	(Technical) News from the COSMO, COSMO/MESSy and MECO(n) world

Poster session 4

0	Edward Charlesworth	Lagrangian and Eulerian Water Vapor Transport Schemes and their Radiative Differences
0	Matthias Nützel	Developments in the radiation infrastructure: updates of cloudopt, aeropt and rad
1	Pratik Rao	The analysis of NOx-O3 effects from optimised air-traffic using algorithmic climate change functions
2	Federica Castino	Climate optimized trajectories in the European airspace: yearly variations of their characteristics
3	Jin Maruhashi	Clustering of ATTILA trajectories using a neuroscience algorithm for the characterization of emission transport pathways
4	Sabine Brinkop	Lagrangian development
5	Bastian Kern	High-resolution Simulations of Atmospheric CO2 with ICON/MESSy
6	Marius Bickel	Contrail Cirrus in EMAC
7	Markus Kunze	What is the minimum spectral resolution to model the 11-year solar cycle response in global models?

Poster Session 5

0	Mattia Righi	Exploring the uncertainties in the aviation soot-cirrus effect
0	Feijia Yin	Developments for Applications in Air Traffic
1	Laura Stecher	Estimating the Impact of the Radiative Feedback from Atmospheric Methane on the Climate Sensitivity
2	Mariano Mertens	Influence of drastic emission changes on air quality in Europe
3	Johannes Holke	Enabling dynamic adaptive mesh refinement in MESSy using the t8code library
4	Maike Hacker	What controls the diurnal cycle of low-level stratiform clouds in the Namib region? - Analysis of conditions and processes with MESSYTENDENCY
5	Javier Perez	Influence of lightning and Transient Luminous Events in the chemistry of the atmosphere with MESSy
6	Jonas Sonnabend	ICON/MESSy-ClaMS – Representation of polar vortices
7	Patrick Peter	Assessment of contrail climate effects in the Northern Hemispheric Extratropics using Lagrangian Trajectories (ATTILA)