DAY 1 - Tuesday 13th June 2023

Time (UTC)	Time (Kiel)	Speaker - Title
		Chair: Stephanie Fiedler
07:00	9:00	**Stephanie Fiedler** Aim & logistics of CACTI workshop 2023
07:10	9:10	**Bill Collins** What did we achieve in AerChemMIP?
07:30	9:30	**Michael Schulz** histSST-piAer or histSST-piNTCF or piClim-histaer or piClim-spAer-histaer or hist-piAer or hist-aer or hist-piNTCF or hist-spAer-aer or hist-spAer-all or historical or histSST
07:45	9:45	**Alkiviadis Kalisoras** Decomposing the Effective Radiative Forcing of anthropogenic aerosols based on seven CMIP6 Earth System Models
08:00	10:00	**Øivind Hodnebrog, Gunnar Myhre** Earth's energy imbalance trend strengthened by recent aerosol emission reductions
08:15	10:15	**Naga Oshima** Contributions of anthropogenic aerosol forcing to mid-20th century Arctic cooling/ Changes in dust emissions in the Gobi Desert due to global warming
08:30	**10:30**	**BREAK**
		Chair: Fiona O'Connor
09:00	11:00	**Pierre Nabat** Impact of updated aerosol anthropogenic emission inventories on aerosol radiative forcing
09:15	11:15	**Laura Wilcox** Aerosol in AerChemMIP: looking back to look forward
09:30	11:30	**Chris Rentsch and Gunnar Myhre** Fingerprint of CO2 and other gases on the greenhouse effect from direct satellite observation
09:45	11:45	**Bill Collins** Past and future climate forcing from ozone depleting substances
10:00	12:00	**Natalie Mahowald** The importance of historical and paleoclimate aerosol radiative effects
10:15	**12:15**	**LUNCH**
11:30	13:30	**Discussion Groups B and J**
13:00	**15:00**	**BREAK & POSTER SESSION**
		Chair: Steven Turnock
14:00	16:00	**Dan Westervelt** Preliminary results of the RAMIP simulations in NASA GISS ModelE
14:15	16:15	**Joonsuk Kang** Anthropogenic aerosols have significantly weakened Northern Hemisphere summertime storminess in the post-satellite era
14:30	16:30	**Robert J. Allen** Anthropogenic aerosol impacts on Pacific Coast precipitation in CMIP6 models
14:45	16:45	**Ruth Digby** How well do Earth System Models reproduce observed aerosol changes during the Spring 2020 COVID-19 Lockdowns?
15:00	17:00	**ONLINE END & ICE BREAKER**

DAY 2 - Wednesday 14th June 2023		
Time (UTC)	**Time (Kiel)**	**Speaker - Title**
		Chair: Michael Schulz
07:00	9:00	**Tim Butler** Global chemistry-climate modelling for assessment of Hemispheric Transport of Air Pollution
07:20	9:20	**Fiona M. O'Connor** The role of an interactive methane cycle in climate sensitivity and climate feedbacks
07:35	9:35	**Marianne T. Lund** Implications of differences between recent anthropogenic aerosol emission inventories on diagnosed AOD and radiative forcing from 1990 to 2019
07:50	9:50	**Vaishali Naik** The World Avoided: Air Quality and Climate Impacts of the U.S. Clean Air Act
08:05	10:05	**Toshihiko Takemura** Simulation of climate change due to reducing regional anthropogenic aerosol emissions using a coupled atmosphere-ocean model
08:20	**10:20**	**BREAK**
09:00	11:00	**Discussion Groups A and R**
10:15	**12:15**	**LUNCH**
		Chair: Vaishali Naik
11:30	13:30	**Alex Archibald** Ace in the hole or a house of cards: Will a DeCK experiment help atmospheric chemistry?
11:45	13:45	**Lee T. Murray** Forecasted climate penalties and benefits to ozone and PM2.5 across the 21st century under different SSP scenarios
12:00	14:00	**Qindan Zhu** Characterizing continental-scale OH trends in CESM2-WACCM6 climate model
12:15	14:15	**Bjørn H. Samset** Regional and seasonal responses to rapid mitigation of absorbing aerosol emissions
12:30	14:30	**Matt Kasoar** The Rapidly Changing Pattern of Fire and its Impact on Future Climate
12:45	14:45	**CACTI PHOTO**
13:00	15:00	**BREAK**
13:30	15:30	**Discussion Groups F and T**
15:00	17:00	**END - Optional visit of GEOMAR aquarium on West Shore (free entry for workshop attendees, closes at 18:00)**
15:00	17:00	**CACTI COMMITTEE MEETING**
	20:00	**JOINT DINNER - Cotidiano Kiellinie, Reventlouallee 2, 24105 Kiel**

DAY 3 - Thursday 15th June 2023		
Time (UTC)	**Time (Kiel)**	**Speaker - Title**
		Chair: Matt Kasoar
07:00	9:00	**Vaishali Naik** CMIP7 update
07:20	9:20	**Lee T. Murray** The Chemistry Climate Model Initiative (CCMI): Current activities and future plans
07:35	9:35	**Franziska Winterstein** Project IRFAM-ClimS: Estimating the Impact of the Radiative Feedback from Atmospheric Methane on Climate Sensitivity
07:50	9:50	**Birgit Hassler** Earth System Model Evaluation Tool (ESMValTool): analyzing CMIP data made easy
08:05	10:05	**Laura Wilcox** The Regional Aerosol Model Intercomparison Project
08:20	**10:20**	**BREAK**
		Chair: Paul Griffiths
09:00	11:00	**Dirk Olivié** Lessons from covid-19 emission reduction simulations with NorESM2
09:15	11:15	**Olaf Morgenstern** Comparison of Arctic and Antarctic Stratospheric Climates in Chemistry Versus No-Chemistry Climate Models
09:30	11:30	**James Weber** Chemistry-albedo feedbacks offset up to a third of forestation's CO2 removal benefits.
09:45	11:45	**Ben Johnson** Self-lofting increases altitude and long-range transport of absorbing aerosols in UKESM1
10:00	12:00	**Ryan Kramer** Plans for the Future of RFMIP
10:15	**12:15**	**LUNCH**
		Chair: Bill Collins
11:30	13:30	**Group rapporteurs** 10 minute reports plus 5 minute questions on outcomes from discussion groups
13:00	**15:00**	**BREAK**
13:30	15:30	**Stephanie Fiedler, Fiona O'Connor, Duncan Watson-Parris** Overall discussion and our way forward for CMIP7
15:00	17:00	**END**

Discussion groups		
	Discussion leads	**Topic**
Group J	James Weber	Changes to SLCFs and the climatic impact from plausible CDR strategies
Group T	Tim Butler	Coordinating activities between CACTI and HTAP
Group A	Paul Griffith, Lee T. Murray	Ace in the hole or a house of cards: Will a DeCK experiment help atmospheric chemistry?
Group B	Bob Allen, Laura Wilcox (online lead)	Aerosol in AerChemMIP: looking back to look forward
Group R	Ryan Kramer, Tim Andrews, Chris Smith (online lead)	Rearranging the DECK chairs: What should RFMIP look like for CMIP7?
Group F	Fiona O'Connor, Paul Griffith, Stephanie Fiedler, Duncan Watson-Parris	Scientific goals of AerChemMIP2

Posters		
	Muhammad Zeeshaan Shahid	Long-Term Variability of Aerosol Concentrations and Optical Properties over the Indo-Gangetic Plain in South Asia
	Steven Turnock	Drivers of the Ozone health burden over the historical period
	Vidya Varma	Response of the ITCZ to anthropogenic aerosol patterns in CMIP6 historical simulations
	Wenjuan Huo	Can the radiative solar forcing play a role in decadal climate variability and predictability?
	Sabine Bischof	Surface response to extreme events in the stratosphere under different global warming thresholds
	Ove Haugvaldstad	Global and regional impacts of mineral dust aerosols in CMIP6 Earth system models
	Franz Kanngießer	AI-assisted cloud removal in satellite-based aerosol observations: A mineral dust case-study
	Sedat Gozlet	Unraveling the Jet Stream Patterns: A Thermal Wind Perspective in a Warming Climate
	Glen Chua	Climate and Atmospheric Composition Effects of Hydrogen Leakage under Different Methane Emission Scenarios