

**19th GEIA Conference: The Global Emission Initiative's efforts to accelerate societal transformations  
Detailed Draft Agenda - September 6**

**Start Length SESSION**  
**Time Minutes Presenter First Na Presenter Last Name Presentation Title**

**Tuesday November 5**

**19:00 120 Icebreaker**

**Wednesday November 6**

**8:00 30 Registration**

**8:30 30 Welcome/Introductions**

Greg Frost

Nicolas Huneus

**9:00 90 Theme 1. Natural Sources, Fires, Dust, Agriculture**

*Moderators: Alison Steiner, Cathy Liousse*

**Introduction to Theme 1**

**Oral Session 1a**

Solene	Turquety	Wildfires' impact on air quality (PM, O3) in Europe: evaluation of emissions and long-range transport against satellite observations (IASI, MODIS)
Yuxuan	Wang	Intensified effects of climate, weather, and fuels on wildfire burned areas during drought in the Southern US
Angelika	Heil	Uncertainties in biomass burning emission inventories for Africa: implications for atmospheric modelling
Rene	Reyes	Estimating firewood consumption and emissions in a context of energy transition for two regions in Chile
Martin Otto Paul	Ramacher	The impact of BVOC emissions from urban forests on ozone production in urban areas under heat period conditions.

## Q&A

### Oral Session 1b

Mokhele Edmond	Moeletsi	Enteric methane emissions trends for livestock in South Africa
Jorge E.	Pachon	Chemical composition and influencing factors for road dust in a tropical urban environment
Alex	Guenther	Heterogeneity and rapid changes in biogenic VOC emissions from managed landscapes
Edward	Carnell	A comparison between the UK's agricultural N <sub>2</sub> O emission inventory model and tall tower measurements
Ulrike	Dragosits	Spatially targeted mitigation of agricultural emissions to maximise benefit for sensitive habitats and designated nature conservation sites

## Q&A

**10:30 30 Coffee/Tea Break**

**11:00 90 Poster Session 1**

Allison	Steiner	Developing regional to global pollen emissions inventories
Tomas Rafael	Bolano-Ortiz	Analysis of open biomass burning using WRF-Chem model with FINN fire emissions in the Central Andes of Argentina and Chile
Efstratios	Bourtsoukidis	Northern Red Sea deep brine pools - a potent natural source of atmospheric ethane and propane
Jana	Doubalova	Spatial and temporal changes in biogenic VOC emissions due to land-cover changes
David	Edwards	Next generation fire pollution prediction: What satellite observations are required to monitor and predict air quality hazards from fires?
Lenin Babu	Kamepalli	Suitability of Tier One Approaches for Quantification of Emission: A Case study of Emissions from Agricultural Sector, India.

Jeroen	Kuenen	Impact of improved PM emissions and emission timing for wood combustion in Europe
Poonam	Mangaraj	Seasonal Gridded (~10km) Emission Inventory of Crop Residue Burning in India (2018) - Presented by Saroj Kumar Sahu
Manisha	Mishra	Atmospheric Reactive Nitrogen Measurements at the Selected Sites of Indo-Gangetic Plains
David	Pfotenhauer	Emissions from Rural and Urban Open Waste Burning in Ghana
Enrique	Puliafito	A HIGH RESOLUTION EMISSIONS INVENTORY OF ARGENTINA FOR AIR QUALITY ESTIMATION
Lijuan	Qi	Intermediate-volatility organic compound emissions from nonroad construction machinery in China
Sagar	Rathod	Anthropogenic combustion-related bioavailable iron supply to global oceans
Maheswar	Rupakheti	New Nepal emissions inventory (NEEMI) - both technology-based (NEEMI-Tech) and open burning (NEEMI-Open) emissions for 2001-2016
Katerina	Sindelarova	Global emissions of biogenic VOCs based on ECMWF meteorology
Atif	Taoussi	Simulation and Analysis of the DMS and Sulfate during the C-SOLAS SABINA Campaign.
Samuel James	Tomlinson	Improving estimates of NH3 emissions from anaerobic digestion and integration with other inventory sectors
Saraswati	Yadav	Reactive nitrogen emission from agricultural fields in India: A case study of nitrogen fertilizers application
A.M.R.	Petrescu	Assessing the greenhouse gas emission balance of agriculture/land-use activities and ecosystems in the EU.

**12:30 90 LUNCH GEIA Working Group Meetings, TFHTAP, New Ideas**

**14:00 90 Theme 2. Top-down Emissions & Satellite Analyses**  
*Moderators: Yuxuan Wang, Erika von Schneidmesser*

## Introduction to Theme 2

### Oral Session 2a

Christopher	Beale	Satellite observations of ammonia over India for improved emission source estimates
David	Crisp	Progress Toward Top-Down Atmospheric CO <sub>2</sub> and CH <sub>4</sub> Flux Inventories
Hugo	Denier van der Gon	Quantification of accidental and continuous methane emissions from the energy sector using earth observation
Enrique	Puliafito	SPATIAL VARIABILITY OF METHANE CONCENTRATIONS OVER ARGENTINA. SATELLITE MEASUREMENTS COMPARE TO HIGH RESOLUTION INVENTORIES.
Katherine	Saad	Parsing out emissions sources in urban environments with airborne hyperspectral imaging
Monica	Crippa	Towards real time mapping of human emissions: insights on the EDGARv5.0 scientific developments

### Q&A

### Oral Session 2b

Trisevgeni	Stavrakou	Distributions and trends of biogenic emissions over South American ecocystems deduced by multiyear inversion of satellite data
Jorge	Vargas	Evaluation of air quality in Colombia based on data from the Copernicus Atmosphere Monitoring Service (CAMS) and surface monitoring
Helen	Worden	Partitioning top-down carbon monoxide flux estimates to understand how sources of CO from anthropogenic, biomass burning and biogenic sectors have been changing over recent decades
Yu	Zhao	Top-down Estimate of Regional Black Carbon Emissions using Ground and Satellite Observations

		Paul	Ginoux	Anthropogenic contribution to dust emissions from satellite based estimates and climate model simulations
		<b>Q&amp;A</b>		
<b>15:30</b>	<b>30</b>	<b>Coffee/Tea Break</b>		
<b>16:00</b>	<b>90</b>	<b>Poster Session 2</b>		
		Vanessa	Brocchi	Analysis of Anthropogenic Combustion and Associated Pollution in Major Cities of Africa
		Jason Blake	Cohen	Coupling Remote Sensing, Models, and Mathematics to Constrain the Emissions Associated with Extreme Pollution Events
		Maite	Bauwens	Detecting trends in anthropogenic VOC emissions over large cities using the long record of OMI observations
		Papori	Dahutia	Vertical distribution of aerosols and clouds over North-Eastern South Asia: aerosol-cloud interactions
		Nellie	Elguindi	Analysis of recent surface emissions from inventories and inverse estimates: are future emission scenarios valid for the recent past?
		Muhammad Zaffa Hashmi		Spatio-Temporal Trends of Chlorinated Hydrocabons and their Relationship with Meteorological Parameters over Pakistan
		Daven	Henze	Top-down constraints on reactive nitrogen (NO <sub>x</sub> and NH <sub>3</sub> ) emissions: consistencies and discrepancies with bottom-up inventories
		Jean-Francois	Muller	Non-methane volatile organic compounds emissions over Latin America and China inferred from TROPOMI HCHO
		Kazuyuki	Miyazaki	Decadal changes in global NO <sub>x</sub> , CO, and SO <sub>2</sub> emissions for 2005-2018 derived from multi-model multi-constituent satellite data assimilation

Chaitri	Roy	Transport of trace gases via eddy shedding from the Asian summer monsoon anticyclone and associated impacts on ozone heating rates
Takashi	Sekiya	Global top-down NO <sub>x</sub> emissions derived from TROPOMI NO <sub>2</sub> data assimilation at 0.56-degree resolution
Jianxiong	Sheng	Bottom-up/top-down estimates of coal mine methane emissions in China: a gridded inventory, emission factors, and trends
Salman	Tariq	Physical and chemical characteristics of air pollutants during recent intense haze/smog events over Pakistan and India
Ronald	van der A	Deriving NH <sub>3</sub> and NO <sub>x</sub> emissions in South America from satellite observations
John	Worden	Quantifying and Partitioning the Global Methane Budget Using Satellite and Ground Observations of Methane and Its Correlative Tracers
Naila	Zeb	Exploring the temporal trends and seasonal behaviour of tropospheric trace gases over Pakistan by exploiting satellite observations
Jing	Zhao	Spatiotemporal heterogeneity and patterns of China,Âs anthropogenic CO <sub>2</sub> emission integrating OCO-2 and multiple inventories
Yuanqian	Xu	Dynamic estimation of open crop residue burning emissions by combining fused fire radiative energy with bottom-up emissions, a case study in Guangdong, China

**17:30 30 Demonstration of ECCAD, GEIA's Emissions Data Portal**

**Thursday November 7**

**9:00 90 Theme 3. Development of Integrated Inventories & Evaluation of Air Quality Models**

*Moderators: Hugo Denier van der Gon, Greet Janssens-Maenhout*

### Introduction to Theme 3

#### Oral Session 3a

Xiaotong	Wang	Improved AIS-based shipping emission model and its latest application in China
Ekbordin	Winijkul	Development of Real-time Spatial and Temporal Distribution of Traffic Emission Using Google Maps API in Bangkok, Thailand
Carlos David	Gomez Ortiz	DROVE: An algorithm for the spatial and temporal disaggregation of on-road vehicle emission inventories
Joana	Leitao	YETI, a high resolution traffic emission inventory for the city of Berlin
Henrik	Grythe	Norwegian Emission Road Vehicle Exhaust (NERVE) model
Sergio	Ibarra Espinosa	Evaluation of emissions factors and estimations from road transportation in China, Argentina, Brazil and Chile

#### Q&A

#### Oral Session 3b

McDonald	Brian	Characterizing Volatile Chemical Product and Mobile Source Emissions in Global Megacities
Paula	Castesana	Combining global and local emission inventories in Latin America and the Caribbean region
Saroj Kumar	Sahu	National Gridded (~10km) Emission Inventory of Major Pollutants and GHGs for India (2018)
Marc	Guevara Vilardell	The new CAMS global and regional emission temporal profiles
Nicolas	Huneus	Evaluation of anthropogenic air pollutant emission inventories for South America at national and city scale
Pamela	Dominutti	Evaluating emission ratios of anthropogenic VOC from the main emission sources in Vietnam, Cote d'Ivoire and Brazil

#### Q&A

**10:30 30 Coffee/Tea Break**

**11:00 90 Poster Session 3**

Oswaldo	Cuesta -Santos	Emissions Inventory from Cuba's Stationary Sources and Management of Air Quality
Sabine	Darras	The Emissions of atmospheric Compounds and Compilation of Ancillary Data (ECCAD) : datasets and analysis tools
Arindam	Datta	Sector specific air pollution emission inventory of India
Madina	Doumbia	Mapping urban emission sources in West Africa cities: Case of the Yopougon district (Abidjan - Cote d'Ivoire) - Presented by Keita Sekou
Dennis	Gilfillan	The nature, history, and future of the CDIAC dataset on CO2 emissions
Claire	Granier	The Copernicus Atmosphere Monitoring Service Global and Regional Emissions
Gabriel Friday	Ibeh	Modelling of Methane Emission Distributions in Nigeria using Neural Network
Greet	Janssens-Maenhout	Uncertainties of EDGAR's CO2 emissions as prior for ECMWF's atmospheric model
Juan Sebastian	Larrahondo Cruz	National Inventory of Emissions of volatile non-methane organic compounds by stationary sources in Colombia
Ana Isabel	Lopez	Evaluation of WRF-Chem performance in the Air Quality modeling over Metropolitan Area of Buenos Aires: inter-comparison of global vs. local emission inventories.
Johann Andres	Mendez Alcazar	Spatial and temporal disaggregation of the national emission inventory for criteria pollutants, greenhouse gases and black carbon from on-road mobile sources in Colombia
Samiha	Nahian	Characterization of Atmospheric Fine Particulate Matter at Indoor Environment of Several Residential Homes in Dhaka, Bangladesh
Mogesh	Naidoo	Development of a model ready emissions inventory for a coastal city in South Africa

Tomohiro	Oda	Assessing errors and uncertainties in a global high-resolution fossil fuel CO2 gridded emissions
Peter Michael	Oduor-Odote	THE IMPROVED FRIED FISH DISPLAY SHELF "The Mama Karanga Box" in Kenya
Alan	Ordonez Campos	Methodology for characterizing soot morphology of particulate emissions in a diesel engine through thermophoretic sampling and HR-TEM analysis
Romina Maria	Pascual Flores	WRF-Chem simulations and potential sources contribution on the Central Andes
Keita	Sekou	Local emissions inventories development for air quality modelling in Abidjan and Korhogo cities
Josielli	Simoes	EVALUATION OF A GLOBAL INVENTORY OF EMISSIONS OVER THE STATE OF RIO GRANDE DO NORTE, BRAZIL
Steven	Smith	Next Steps With The Community Emissions Data System
Saurabh	Sonwani	Characteristics of carbonaceous aerosol with respect their sources and wet scavenging during pre-monsoon and monsoon season over Delhi, Region
Beatriz	Cardenas G	Emissions inventories as a key tool to shift from "the air is bad" to "what do we do about it": a pilot process
Carlos Mario	Gonzalez Duque	Integrating tools for air quality management in a medium-sized Andean city: Emissions inventory, air pollutant monitoring and atmospheric modeling
Fanyuan	Deng	The high-resolution emission inventory of on-road freight truck by large scale GPS big-data: the case study in north China
Vikas	Goel	3-Dimensional Characterization of Atmospheric Particles using FIB-SEM-EDS Collected from Arid Environment: Implications to Aerosol Optics

Swettaleena	Dash	Gridded (~10km) Inventory of PM10 and PM2.5 Emission from Paved and Unpaved Road in India (2018) - Presented by Saroj Kumar Sahu
Augustin	Garcia	Mexico National Emissions Inventory, 2014 base year for Air quality Modeling
Fei	Yu	Combining real-time traffic big data and instantaneous emission
Manni	Zhu	On-line measurements of formaldehyde emissions from motor vehicles based on a chassis dynamometer
Efio	Solazzo	Uncertainty analysis of greenhouse gases emission: application to the EDGAR inventory

**12:30 90 LUNCH GEIA Working Group Meetings, TFHTAP, New Ideas**

**14:00 90 Town Hall**  
*Moderators: Paulette Middleton, Leonor Tarrason, Greg Frost*

**15:30 30 Coffee/Tea Break**

**16:00 90 Theme 4. Climate Change & Air Quality Assessments**  
*Moderators: Zig Klimont, Beatriz Cardenas*  
**Introduction to Theme 4**

**Poster Session 4**

Daniel	Tong	Community Emission Testbed: Accelerating emission updates through community collaboration
Alberto	Diaz Garzon	Estimating energy consumption and particulate matter emissions due to oil production and transport in the Colombian Orinoco River Basin
Jacinta	Edebeli	Effect of engine and ambient temperature on emissions of aircraft turbine engines at low power modes.
Marcelo	Felix Alonso	STUDIES OF AIR QUALITY IN THE METROPOLITAN REGION OF PORTO ALEGRE USING NUMERICAL MODELING
Sadig	Hasanov	GHG emissions reduce by changing are the fuel type in the power generation in Azerbaijan.

Takayuki	Hayashida	A simulation-based urban observation network design for monitoring carbon dioxide (CO <sub>2</sub> ) emissions from Megacity Osaka, Japan
Jeroen	Kuenen	Emissions of engineered nanoparticles to the environment
Meng	Li	Persistent growth of anthropogenic NMVOC emissions in China during 1990-2017: trends, speciation, and ozone formation potentials
Li	Liu	Impact assessment of Picea koraiensis leaves exposed to fine particulate matters beside highway in Urumqi
Huan	Liu	New approach for establishing global shipping emission inventory and allocating responsibility to nations
Zhaofeng	Lv	Development of a real-time on-road vehicle emission inventory and its impacts on air quality in a megacity
Saroj Kumar	Sahu	Changing Emission Trend in World's most polluting Megacity Delhi in India (2010-18)
Edgar	Sandoval-Garcia	Energy efficiency indicators of road freight transportation sub-sector for the development of an integrated transport policy.
Muhammad Zeeshan Shahid		Case study of air quality during winter season over northeastern Pakistan during 2007 to 2015
Hiroshi	Tanimoto	Quantifying Combusted Carbons from Cities for Climate Change Mitigation: The Megalopolis Tokyo GHG-AQ - (MegalopolisTokyo) Project - Presented by Tomohiro Oda
Josefina	Urquiza	Land transportation black carbon emission distribution in a medium sized latin american city
Kopal	Verma Saini	Control of indoor carbon through soft approaches in Himachal Pradesh (India)
Ngoc	Vu	Development of Emission Inventory for Air Pollutants in Hanoi Metropolitan Region 2015 for Air Quality Modelling and Health Effect Assessment

Camilo	Zapata Mora	CONCENTRATIONS AND SOURCES APPORTIONMENT OF POLYCYCLIC AROMATIC HYDROCARBONS IN AMBIENT AIR OF A MEDIUM-SIZED ANDEAN CITY
Naila	Zeb	Performance Evaluation of VAR Model to Forecast Atmospheric Carbon monoxide and Ozone over regions lacking air quality monitoring networks
Rubio Ignacio	Calvo Gallardo	Projections of residential emissions for south central Chile: Scenario analysis for 2014-2050
Chunxi	Zhang	Spatial and Temporal Distribution Characteristics of PM2.5 in Urumqi City Based on GIS and Its Relation with Forest Cover
Monica	Crippa	EDGAR support at COP25: 'Fossil CO2 and GHG emissions for all word countries – 2019 report'
Gabriel	Oreggioni	EDGAR v5.0: a tool to evaluate the influence of technology incorporation and regulatory frameworks on global greenhouse gases and air pollutant emissions

**17:30 30 Demonstration of the Community Emissions Data System**

**18:00 120 Reception**

#### Friday November 8

**9:00 90 Theme 4. Climate Change & Air Quality Assessments**

*Moderators: Zig Klimont, Beatriz Cardenas*

#### **Oral Session 4a**

Guy	Brasseur	The International Monitoring, Analysis and Prediction of Air Quality (MAP-AQ) Project
Mark	Parrington	The impact of timely and updated emissions on near-real-time forecasts of global atmospheric composition
Kevin	Bowman	From concentrations requirements to emission committments: prospects and challenges for the Global Stocktake

Cathy	Liousse	African Regional distribution of aerosol health impact due to anthropogenic sources
Susana	Lopez-Aparicio	Does subsidy towards clean stoves for residential wood combustion affect emission reductions? - A case study in Oslo Municipality
Yimin	Zhang	An integrated approach to assessing air quality impact of biomass feedstock production

**Q&A**

**Oral Session 4b**

Raul	O'Ryan	EMISSION AND ECONOMIC IMPACTS OF RENEWABLE ENERGY EXPANSION IN CHILE: A HYBRID CGE MODEL APPROACH
Hans	Schlager	Aircraft measurement of emissions from alternative fuel in aviation
Ricardo	Suarez Bertoa	Unexpected vehicle emissions due to recent changes in vehicle technologies
Kushal	Tibrewal	India's climate action must include warming short-lived climate pollutants
Shuxiao	Wang	Transition in source contributions of PM2.5 exposure and associated premature mortality in China
Yiqi	Zhang	Combined Impact of Multilevel Regulations of Shipping Emissions Control on the Global Environments

**Q&A**

**10:30 30 Coffee/Tea Break**

**11:00 90 Conference Next Steps**

Working Groups and TFHTAP - Moderators Terry Keating, Claire Granier

How are we going to work between conferences? – cooperation with ILEAPS – IGAC –ESA? Others?

China - Yuxuan Wang

VOC - Erika Von Schneidemesser

Latin America and Caribbean - Nicolas Huneus

Urban Emissions - Leonor Tarrason

Africa - Cathy Liousse

**Q&A**

Future directions from the Town Hall – Message to Policy Makers (in the afternoon) -

Greg Frost, Leonor Tarrason, Paulette Middleton

Conference Summary - Leonor Tarrason

Announcement of GEIA 2021

**14:00 120 Special Closed Event on Policy Implications**