

*Current agenda is tentative and subject to change		
Wednesday, May 29		
8:00-8:30am	Registration	
8:30-9:30am	Opening Statements	
8:30am-8:40am	Helen, Chris	Welcome to IWGGMS-20/Logistics
8:40am-8:50am	Director of UCAR?	Welcome from UCAR
8:50am-9:00am	Ken Jucks?	NASA Statements
9:00am-9:10am	Sponsor Statements	MethaneSAT Statement
9:10-9:30am	Hiroshi Suto	CEOS Priorities for GHG Measurements from Space; JAXA updates on GOSAT1-2 & GOBLEU
Status of Current Missions		
9:30am-12:00pm	Chairs:	
9:30-9:50am	Dave Crisp	IWGGMS-20 - Documenting Two Decades of Greenhouse Gas Measurements from Space
9:50-10:05am	Lu Zhang	Measurement of CO2 from Space using the ACDL Lidar onboard DQ-1
10:05-10:30am	Coffee Break	
10:30-10:45am	Tsuneo Matsunaga	Current Status of GOSAT and GOSAT-2 Products and Their Contribution to Climate Change Mitigation Policies
10:45-11:00am	Vivienne Payne	The OCO-2 and OCO-3 Missions: Status, results and plans
11:00am-11:15am	Tobias Borsdorff	The Operational TROPOMI CH4 Data Product: Advancing Data Quality and Coverage through future updates
11:15am-11:30am	Ramier Antoine	The GHGSat constellation: Land and offshore greenhouse gases detection and quantification
11:30am-11:45am	Andrew Thorpe	Methane and CO2 emission attribution from space with EMIT and aircraft using AVIRIS-3 for calibration and validation
11:45am-12:00pm	Jonathan Franklin	The MethaneSAT mission: A new approach to quantifying area and point source methane emissions

12:00pm-1:00pm	Lunch	
1:00pm-2:00pm	Day 1 Poster Session	
	Chairs:	
<u>Calibration and Validation</u>		
2:00pm-5:00pm	Chairs:	
2:00pm-2:15pm	Mahesh Kumar Sha	Fiducial Reference Measurement for Greenhouse Gases (FRM4GHG) for the validation of satellite missions
2:15pm-2:30pm	Joshua Laughner	The GGG2020.1 TCCON dataset
2:30pm-2:45pm	Saswati Das	Evaluating Satellite-based V11.1 OCO-2 XCO ₂ measurements against Ground-based COCCON and TCCON measurements
2:45pm-3:00pm	Bianca Baier	Using NOAA AirCore vertical profiles to evaluate satellite retrievals and establish WMO traceability: applications to NASA, Ås OCO-2 program and implications for future work
3:00pm-3:15pm	Robert Rosenberg	Empirical Orthogonal Functions to Diagnose and Correct OCO-2/3 Calibration Errors
3:15pm-3:45pm	Coffee Break	
3:45pm-4:00pm	Bernd Sierk	The CO ₂ I imaging spectrometer of the CO ₂ M mission: Calibration and correction of instrument effects
4:00pm-4:15pm	Nathan Lesso	MethaneSAT Observatory Design and Development
4:15pm-4:30pm	Annmarie Eldering	Consensus Standards for Methane Measurements: Plume Scale Data
4:30pm-4:45pm	Timo Virtanen	A Global Perspective on Aerosol Effect in Satellite CO ₂ Retrievals
4:45pm-5:00pm	Christopher Usher	A Multi-sensor Approach for Quantifying and Localizing Diffuse Emissions

5:20pm-5:45pm	BUSES TO MESA LAB	
6-10pm	ICEBREAKER- Mesa Lab	
Thursday, May 30		
Local-to-Regional Sources		
9:00am-12:00pm	Chairs:	
9:00am-9:15am	Dylan Jervis	Global Oil-Gas and Coal Methane Emissions Behaviour Measured by the GHGSat Constellation
9:15am-9:30am	Abhishek Chatterjee	Monitoring urban CO2 emissions from space: current status and future potential
9:30am-9:45am	Roisin Commane	Constraining urban GHG emissions from space: A simulation study and evaluation against observations
9:45am-10:00am	Dien Wu	Towards monitoring, reporting, and verifying urban emissions from space
10:00am-10:15am	Robert Nelson	Unveiling Emissions: Comparing OCO-3 and EMIT Observations of CO2 Point Sources from the ISS
10:15am-10:45am	Coffee Break	
10:45am-11:00am	Sara Mikaloff-Fletcher	Quantifying agricultural CH4 emissions using MethaneSAT and MethaneAIR data
11:00am-11:15am	Daniel Varon	Continuous monitoring of methane emissions from space
11:15am-11:30am	John Worden	Evaluation of National Methane Inventories using GOSAT based Methane Fluxes for 2010-2022
11:30am-11:45am	Tobias A. de Jong	Methane super-emitter detection and identification combining TROPOMI with VIIRS
11:45am-12:00pm	Tai-Long He	Increased methane emissions from oil and gas following the Soviet Union's collapse
12:00pm-1:00pm	Lunch	
1:00pm-2:00pm	Day 2 Poster Session	

	Chairs:	
Algorithms, Priors, and Products		
2:00pm-5:00pm	Chairs:	
2:00pm-2:15pm	Peter Somkuti	L2 Retrieval Efforts within the U.S. Greenhouse Gas Center
2:15pm-2:30pm	Michael Weimer	XCO2 Retrievals of OCO-3 Snapshot Area Maps using the FOCAL Algorithm with the Goal of CO2 Emission Estimates
2:30pm-2:45pm	Terigelehu Te	Estimation of atmospheric CO2 concentration in the Yangtze River Delta region using a random forest model
2:45pm-3:00pm	Brad Weir	Assimilating the OCO-2 forward stream: Don't knock it 'til you've tried it
3:00pm-3:15pm	Jonathan Hobbs	Uncertainty Quantification Linkages for Atmospheric CO2 Retrievals from the OCO Missions
3:15pm-3:30pm	Coffee Break	
3:30pm-4:00pm	Lesley Ott	NASA Goddard Space Flight Center contributions to the U.S. GHG Center: focus on expanding cal/val, quasi-operational modeling, and data access
4:00pm-4:15pm	Paul Green	Standards for satellite-derived methane product
4:15pm-4:30pm	Anthony Himmelberger	Constructing a measurement-based spatially explicit inventory of US oil and gas methane emissions for interpretation of remote sensing observations
4:30pm-4:45pm	Alana Ayasse	Detection Limits and a Multi-Sensor Persistence Framework for Airborne and Satellite Acquisitions of Methane Plumes
4:45pm-5:00pm	Cynthia Randles	The UNEP International Methane Emissions Observatory (IMEO) Methane Alert and Response System (MARS) One Year Later: Lessons Learned and Way Forward
Friday, May 31		
Regional-to-Global Fluxes		
9:00am-12:00pm	Chairs:	

9:00am-9:15am	Argyro Kavvada	The U.S. Greenhouse Gas Center: Uniting Data and Technology to Empower Tomorrow's Climate Solutions
9:15am-9:30am	Benjamin Gaubert	Neutral Tropical African CO ₂ Exchange Estimated From Aircraft and Satellite Observations
9:30am-9:45am	Xin Lan	Atmospheric methane surges in 2020-2023
9:45am-10:00am	Junjie Junjie	Carbon cycle anomalies in 2023 as viewed by the Orbiting Carbon Observatory missions
10:00am-10:15am	Mark Omara	Comprehensive high-resolution assessment of diffuse area and point source methane emissions from the oil and gas sector using MethaneAIR and MethaneSAT
10:15am-10:45am	Coffee Break	
11:00am-11:15am	Eva-Marie Metz	Seasonal and Inter-Annual Variability of Carbon Fluxes in Southern Semi-Arid Africa Seen by GOSAT
11:15am-11:30am	Gretchen Keppel-Aleks	Detectability of ocean flux variations from OCO-2 observations
11:30am-11:45am	Scot Miller	A closer look at the seasonal amplitude of global, biogenic CO ₂ fluxes using OCO-2 and in situ observations
11:45am-12:00pm	Aki Tsuruta	Assimilation of GOSAT partial column retrievals in CTE-CH ₄ atmospheric inverse model for estimation of global and regional CH ₄ budgets
12:00pm-1:00pm	Lunch	
1:00pm-2:00pm	Day 3 Poster Session	
	Chairs:	
Status and Plans for Future Missions		
2:00pm-5:00pm	Chairs:	
2:00pm-2:13pm	Hiroshi Tanimoto	The GOSAT-GW greenhouse gas observing mission: Updates
2:13pm-2:26pm	Riley Duren	Carbon Mapper: performance predictions and airborne prototyping

2:26pm-2:39pm	Yi Liu	Development of China,Äôs greenhouse gas monitoring satellite missions
2:39pm-2:52pm	Christian Frankenberg	Data Drought in the Humid Tropics: How to Overcome the Cloud Barrier in Greenhouse Gas Remote Sensing
2:52pm-3:05pm	Nicholas Parazoo	More frequent spaceborne sampling of XCO2 improves detectability of carbon cycle seasonal transitions in Arctic
3:05pm-3:18pm	Rory Barton-Grimley	City-Scale Methane Retrievals from the HALO lidar During the 2023 STAQS Campaign and Prospects for Future Cross-Cutting Lidar Space-Mission Concepts
3:18pm-3:45pm	Coffee Break	
3:45pm-3:58pm	Hayoung Park	Mission Design and Introduction to the First Korean Spaceborne Methane Monitoring Project: Narsha
3:58pm-4:11pm	Yasjka Meijer	Status of the Copernicus anthropogenic CO2 Monitoring (CO2M) mission
4:11pm-4:24pm	Denis Jouglet	The MicroCarb CO2 mission: status and performances
4:24pm-4:37pm	Jochen Landgraf	TANGO - the Twin Anthropogenic Greenhouse Gas Observers
4:37pm-4:50pm	Berrien Moore	The GeoCarb Mission: Recent Progress and Scientific Necessity
Closing Statements		
4:50-5:10pm	All	Location of IWGGMS-21