IWGGMS-21 Scientific Program - Final Version 20250601 -

Monday - Thursday, June 9 - 12, 2025

Time (JST)	ID	Title	Chair/Speaker	Duration (min)	Session	Abstract ID
		Monday, June 9				
		Opening - welcome, goals, setup				
9:00		NIES and MOEJ		15		
9:15		JAMSTEC, NICT, Kagawa Univ, Chiba Univ, JpSAC		10		
9:25		CEOS AC-VC and WGCV/ACSG		5		
		Session 1: Status and results from current missions	**Chairs: Abhishek Chatterjee (JPL), Naoko Saitoh (Chiba U)**			
		Session 2: Status and plans of future missions	**Yasjka Meijer (ESA), Ray Nassar (ECCC)**			
9:30	1.01	Status of NIES GOSAT and GOSAT-2 Projects	Tsuneo Matsunaga (NIES)	15	Session 1	145
9:45	1.02	Long-term Global Greenhouse Gas Observation by GOSAT and GOSAT-2 and Local Emissions/Removals Observation by GOBLEU	Hiroshi Suto (JAXA)	15	Session 1	64
10:00	1.03	The OCO-2 and OCO-3 Missions: Status, Results and Plans	Vivienne Payne (JPL/Caltech)	15	Session 1	104
10:15	1.04	The New Progress of DQ-1 and the Pre-research of DQ-2	Lu Zhang (CMA)	15	Session 1	47
10:30		Coffee Break		30		
11:00	1.05	GHGSat in 2024: Performance, Global Emissions Insights, and Constellation Expansion	Dylan Jervis (GHGSat)	15	Session 1	19
11:15	1.06	The MethaneSAT mission: current status and future direction	Jonathan Franklin (Harvard University)	15	Session 1	154
11:30	1.07	Carbon Mapper updates and preliminary Tanager-1 greenhouse gas measurement performance	Daniel Cusworth (Carbon Mapper)	15	Session 1	132
11:45	2.01	NASA's GHG Observation Plans Over the Next 4 Years	Ken Jucks (NASA Headquarters)	15	Session 2	147
12:00	2.02	The greenhouse gas observation mission with Global Observing SATellite for Greenhouse gases and Water cycle (GOSAT-GW): Updates	Hiroshi Tanimoto (NIES)	15	Session 2	18
12:15	1.08	Interface with users of GOSAT-GW TANSO-3 observation: observation requests, product downloads, and acquisition of information	Hisashi Yashiro (NIES)	15	Session 1	162
12:30	2.03	The Chinese GHG Status and Plan	Lin Chen (CMA)	15	Session 2	50
12:45	2.04	Carbon-I, a NASA Earth System Explorer Mission Concept for Global Carbon Cycle Science	Christian Frankenberg (Caltech)	15	Session 2	167
13:00		Lunch Break / Poster Session (Session 1, 2, 3) / 14:30-15:00 Coffee Break		120		
15:00	2.05	The Twin Anthropogenic Greenhouse Gas Observers Mission	Jochen Landgraf (SRON)	15	Session 2	90
15:15	2.06	The MicroCarb CO2 mission: imminent launch!	Denis Jouglet (CNES)	15	Session 2	101
15:30	2.07	The Copernicus anthropogenic CO2 Monitoring (CO2M) mission - status and results from product development	Ruediger Lang (EUMETSAT)	15	Session 2	55
15:45	2.08	Greenhouse gas observations from the proposed Arctic Observing Mission (AOM)	Ray Nassar (ECCC)	15	Session 2	111
16:00	1.09	Sub-Kilometer Hyperspectral Carbon Monitoring: Joint Radiance-Wavelength Calibration and Bayesian Spatiotemporal Collaborative Retrieval	Shichao Wu (Hefei Institutes of Physical Sciences, CAS)	15	Session 1	23
16:15	2.09	Towards a remote sensing solution to quantify N2O emissions by integrating shortwave and longwave infrared bands	Ayesha Riaz (State University of New York at Buffalo)	15	Session 2	41
		Special session to celebrate Akihiko Kuze's retirement	**Chairs: Hiroshi Suto (JAXA), Tsuneo Matsunaga (NIES)**			
16:30	SPECIAL	Measuring Greenhouse Gases from Space: Past, Present, and Future	David Crisp, Tatsuya Yokota, Akihiko Kuze	30		
17:00		Move to outside		30		
17:30		Group Photo / Ice Breaker		150		
20:00		End of Day 1				

Time (JST)	ID	Title	Chair/Speaker	Duration (min)	Session	Abstract ID
		Tuesday, June 10				
		Session 6: Urban/local/facility scale emissions - quantification and validat	**Chairs: John Worden (JPL), Julia Marshall (DLR)**			
9:00	6.01	Advanced Methane Plume Detection and Inversion Using GF-5B AHSI: A Statistical-Physical Coupling Approach	Zhonghua He (Zhejiang Climate Center, Zhejiang Meteorological Bureau)	12	Session 6	6
9:12	6.02	Methane emission estimates of localized sources from Sentinel-5 Precursor, PRISMA, EnMAP and EMIT using a cross-sectional-flux method	Michael Buchwitz (University of Bremen)	12	Session 6	7
9:24	6.03	Methane Discrete Source Detection and Quantification Using MethaneSAT	Zhan Zhang (Harvard University)	12	Session 6	33
9:36	6.04	Quantifying agricultural CH4 emissions using MethaneSAT, MethaneAIR and ground-based data	Sara Mikaloff-Fletcher (NIWA)	12	Session 6	26
9:48	6.05	Global Distributions of Super-Emitting Methane Sources	Daniel Cusworth (Carbon Mapper)	12	Session 6	54
10:00	6.06	Detection and quantification of CH4 and CO2 emissions at the facility scale with the GHGSat constellation	Jason McKeever (GHGSat)	12	Session 6	63
10:12		Session 6 Panel Discussion		18		
10:30		Coffee Break		30		
		Session 3: Retrieval algorithms, priors, and products	**Chairs: Yu Someya (NIES), Chris O'Dell (CSU)**			
11:00	3.01	OCO-3 Version 11 Snapshot Area Mapping (SAM) Mode Observations	Abhishek Chatterjee (JPL/Caltech)	15	Session 3	20
11:15	3.02	MethaneSAT XCH4 retrieval	Sebastien Roche (EDF)	15	Session 3	21
11:30	3.03	First quantification of atmospheric carbon dioxide from the Geostationary Operational Environmental Satellite (GOES East)	Aaron Sonabend (Google Research)	15	Session 3	115
11:45	3.04	Correlated albedo and elevation variability leading to retrieval artefacts	Julia Marshall (DLR/University of Leipzig)	15	Session 3	152
12:00	3.06	Impact of Raman scattering on XCO2 and SIF retrievals from OCO-2/3	Christian Frankenberg (JPL/Caltech)	15	Session 3	52
12:15	3.07	Development of a principal components-based radiative transfer model and its application to IASI CH4 retrievals	Charles Robert (BIRA)	15	Session 3	4
12:30	3.08	Retrieval of GHG from interferogram : exploration, comparison with spectra from spectra	Sebastien Payan (Sorbonne Universite - CNRS - LATMOS)	15	Session 3	91
12:45		Lunch Break / Poster Session (Session 4, 5) / 14:30-15:00 Coffee Break		135		
		Session 4: Calibration and validation	**Chairs: Hirofumi Ohyama (NIES), Mahesh Kumar Sha (BIRA)**			
15:00	4.02	Evaluating satellite-based XCO2 measurements from v11.2 OCO-2 and v11 OCO-3 against ground-based measurements from TCCON and COCCON, and airborne measurements from ATom	Mahesh Kumar Sha (BIRA-IASB)	12	Session 4	2
15:12	4.03	Validation of satellite data of greenhouse gases based on observations of TCCON Hefei Site, China	Wei Wang (Anhui Institute of Optics and Fine Mechanics, CAS)	12	Session 4	66
15:24	4.04	The COllaborative Carbon Column Observing Network COCCON: Recent updates	Matthias Max Frey (Karlsruhe Institute of Technology)	12	Session 4	40

15:36	4.05	What Are Fiducial Reference Measurements for Greenhouse Gases and How Reliable Are They For The Satellite Validation?	Mahesh Kumar Sha (BIRA)	12	Session 4	160
15:48	4.06	Status and upcoming plans of ground-based FTS measurements for evaluating space-based greenhouse gas measurements and carbon cycle studies at the National institute for Environmental Studies	Isamu Morino (NIES)	12	Session 4	148
16:00	4.07	The Copernicus anthropogenic CO2 Monitoring (CO2M) mission - operational product validation and monitoring	Catherine Hayer (Hamtec Consulting for EUMETSAT)	12	Session 4	102
16:12	4.08	Assessing the Effect of HITRAN Updates on Cross-Platform Calibration and Validation for Satellite-Based GHG Retrievals	Shin Ishida (JAXA)	12	Session 4	127
16:24	4.09	Comparison of the TIR spectral radiance between GHG satellite-based multi-sensors (GOSAT, GOSAT-2, AIRS, IASI, and CrIS) and aircraft-based S-HIS	Atsushi Yasuda (RESTEC)	12	Session 4	141
16:36	4.12	MethaneSAT L0 to L1B processor and in-Flight Calibration and Performance	Bingkun Luo (Harvard-Smithsonian Center for Astrophysics)	12	Session 4	117
16:48		Session 4 Panel Discussion		12		
17:00		End of Day 2				
Time (JST)	ID	Title	Chair/Speaker	Duration (min)	Session	Abstract ID
		Wednesday, June 11				
		Session 5: Global to regional flux estimates and validation	**Chairs: Sara Mikaloff-Fletcher (NIWA), Hannakaisa Lindqvist (FMI)**			
9:00	5.01	Studying the Carbon Cycle Dynamics in Semi-arid Regions of the Southern Hemisphere from Space	Sanam N. Vardag (Heidelberg University)	15	Session 5	93
9:15	5.02	Advance in understanding of the changes in the carbon cycle and its linkage to the water cycle during the 2023-2024 El Nino in Amazon region	Kevin Bowman (JPL/Caltech)	15	Session 5	76
9:30	5.03	Inverse analysis with in-situ/flask and GOSAT observations to disentangle regional and sectoral emission contributions to the surge of atmospheric CH4 for 2020-2022	Yousuke Niwa (NIES)	15	Session 5	126
9:45	5.04	Nitrous oxide (N2O) surface fluxes derived from IASI space-borne observations	Jean-Luc Attie, Philippe Ricaud (CNRM, Toulouse)	15	Session 5	84
10:00	5.05	Progress in understanding natural carbon fluxes with decade-long OCO-2/3 observations	Junjie Liu (JPL/Caltech)	15	Session 5	70
10:15	5.06	Progress in multiresolution flux inversion in support of OCO2-MIPv2	Kevin Bowman (JPL/Caltech)	15	Session 5	73
10:30		Coffee Break		30		
		Session 8: Stakeholder needs and engagement	**Chairs: Lesley Ott (NASA), Hiroshi Tanimoto (NIES)**			
11:00	8.01	Engaging with stakeholders through the Greenhouse Gas Task Team	Yasjka Meijer (ESA)	12	Session 8	58
11:12	8.02	UNEP's IMEO Methane Alert and Response System: Current status and new requirements to enhance the system	Itziar Irakulis-Loitxate (UNEP, IMEO)	12	Session 8	165
11:24	8.03	The U.S. GHG Center: improving the quality, transparency, and accessibility of GHG information for decision-making	Lesley Ott (NASA)	12	Session 8	163
11:36	8.04	Development of the Japan Greenhouse Gas Center and its stakeholder engagement	Hiroshi Tanimoto (NIES)	12	Session 8	82
11:48	8.05	The GOSAT series and its use in environmental policy and utilization concept	Hironari Ishihara (Ministry of the Environment, Japan)	12	Session 8	144
12:00	8.06	The ESA-European Commission Earth System Science Initiative – A unique partnership and collaborative opportunity for advancing GHG knowledge	Edward Malina (ESA ESRIN)	12	Session 8	168
12:12	8.07	Meta-modeling for the Climate TRACE Emissions Inventory	Daniel Moore (WattTime, Climate TRACE)	12	Session 8	153
12:24	8.08	Enhancing the utility and adoption of space-based greenhouse gas observations by stakeholders in the inventory and policy communities	David Crisp (Crisp Spectra LLC)	12	Session 8	48
12:36		Session 8 Panel Discussion		24		
13:00		Lunch Break / Poster Session (Session 6, 7) / 14:30-15:00 Coffee Break		120		
		Session 5: Global to regional flux estimates and validation	**Chairs: Sara Mikaloff-Fletcher (NIWA), Hannakaisa Lindqvist (FMI)**			
15:00	5.08	Regional carbon sink estimates by NTFVAR inverse model with surface and satellite observations	Shamil Maksyutov (NIES)	15	Session 5	71
15:15	5.09	Investigating anomalous growth of atmospheric CO2 in 2023-2024 using GOSAT XCO2-constrained inverse modeling	Suman Maity (NIES)	15	Session 5	78
15:30	5.10	Constraining shoulder season carbon fluxes (CO2 and CH4) from the Arctic - Boreal zone using remote-sensing observations	Abhishek Chatterjee (JPL/Caltech)	15	Session 5	59
15:45		End of Day 3				
Time (JST)	ID	Title	Chair/Speaker	Duration (min)	Session	Abstract ID
		Thursday, June 12				
		Session 6: Urban/local/facility scale emissions - quantification and validat	**Chairs: John Worden (JPL), Julia Marshall (DLR)**			
9:00	6.07	Scale dependencies in urban CO2 inversions constrained by satellite remote sensing measurements	Alohotsy Rafalimanana (Universite de Reims Champagne-Ardenne)	12	Session 6	97
9:12	6.08	Investigating the potential for detecting urban methane point sources over South Korea using EMIT observations	Yu-Ri Lee (Seoul National University)	12	Session 6	157
9:24	6.09	A network of EM27 FTS for urban measurements of XCO2, XCH4, and XCO across the city of Toronto	Nicole Jacobs (University of Toronto)	12	Session 6	8
9:36	6.10	Regional and socioeconomic characteristics in global cities' CO2 emissions revealed from space	Doyeon Ahn (GESTAR II, Morgan State University)	12	Session 6	53
9:48	6.11	Assessing Methane Detection Capabilities of Operational Satellite Sensors using Controlled Release Experiments	Shobha Kondragunta (NOAA)	12	Session 6	99
10:00	6.12	Common Practices For Quantifying, Reporting, Validating and Assessing Facility Scale Methane Emissions Using Remote Sensing	Paul Green (NPL)	12	Session 6	129
10:12		Session 6 Panel Discussion		18		
10:30		Coffee Break		30		
		Session 5: Global to regional flux estimates and validation	**Chairs: Sara Mikaloff-Fletcher (NIWA), Hannakaisa Lindqvist (FMI)**			
11:00	5.11	Can we detect CH4 emissions from permafrost with TROPOMI XCH4?	Ray Nassar (ECCC)	15	Session 5	110
11:15	5.12	Evaluating the consistency of the emissions estimated from atmospheric inversions using three methane TROPOMI products at the regional and global scales	Adrien Martinez (LSCE)	15	Session 5	143
11:30	5.13	European Methane Flux Estimates Using the Community Inversion Framework	Anteneh Getachew Mengistu (FMI)	15	Session 5	29
11:45	5.14	Assessing South Asia's Methane Budget Using Satellite Observations and Inverse Modeling	Rakesh Subramanian (University of Vienna)	15	Session 5	17
12:00	5.15	Estimating methane emissions consistent with both satellite and isotope constraints	Sourish Basu (University of Maryland)	15	Session 5	13
12:15	5.16	The MethaneSAT CORE algorithm: quantification of diffuse sources from oil and gas production regions	Jacob Bushey (Harvard University)	15	Session 5	109

12:30	5.17	Methane Budgets of East, Southeast and South Asia (2010-2021): An Inversion Inter-Comparison for Asia (MICA)	Fenjuan Wang (NIES)	15	Session 5	80
12:45	5.18	Benchmarking USA Methane Inventories using GOSAT based Methane Fluxes	John Worden (JPL/Caltech)	15	Session 5	49
13:00		Lunch Break		60		
		Session 7: Multi-species observations/modeling and GHG-AQ synergy	**Chairs: Jochen Landgraf (SRON), Helen Worden (NCAR)**			
14:00	7.01	Column and Surface Concentration Observations of CO2 and NO2 at Yokosuka, Japan, in Support of GOSAT-GW/TANSO-3	Yugo Kanaya (JAMSTEC)	15	Session 7	95
14:15	7.02	Towards shipborne emission monitoring and satellite validation of CO2, CH4, CO, and NO2 through simultaneous columnar and in situ observations	Astrid Mueller (NIES)	15	Session 7	116
14:30	7.03	Step change in boreal fire emissions? A Canadian case study	Helen Worden (NCAR)	15	Session 7	46
14:45	7.04	Predicting fossil fuel CO2 using air quality emissions and emerging CO2 satellite observations for global carbon cycle assessment	Kevin Bowman (JPL/Caltech)	15	Session 7	15
15:00	7.05	Monitoring the “atmospheric stock” of greenhouse gases from space	Brad Weir (Morgan State University & NASA GSFC)	15	Session 7	89
15:15	7.06	Top-down emission estimates of CO2 and co-emitted air pollutants through a sector-based inversion framework	Zhen Qu (North Carolina State University)	15	Session 7	9
15:30		Session 7 Panel Discussion		30		
		Closing - thank you, next IWGGMS				
16:00		MOEJ and NIES		15		
16:15		IWGGMS-22 LOC		15		
16:30		End of IWGGMS-21				
Time (JST)	ID	Title	Presenter	Duration (min)	Session	Abstract ID
		Poster Session				
	1.11	Ground-Based_FTIR_Atmospheric_CFCs-HCFCs_Spatiotemporal_Variations	Shiyi Wang (Hefei Institutes of Physical Science, CAS)		Session 1	83
	1.12	Long-term XCO2 from GOSAT observations with IAPCAS retrieval algorithm	Lu Yao (Institute of Atmospheric Physics, CAS)		Session 1	65
	2.10	The greenhouse gas emission monitoring spectrometer onboard CubeSat platforms: current status and plans in Korea	Hoejun Choi (Pukyong National University)		Session 2	124
	2.11	The plans for the Greenhouse gases absorption spectrometer on FengYun -3H	Qian Wang (CMA)		Session 2	27
	2.12	Hyperspectral imaging detection technology for greenhouse gases with variable spatial resolution based on DMD coding	Haiyan Luo (Hefei Institutes of Physical Science, CAS)		Session 2	118
	3.10	Release and demonstration of a new open retrieval algorithm toolset	Peter Somkuti (University of Maryland / NASA)		Session 3	158
	3.11	Latest topics about the GOSAT-2 SWIR L2 products	Yukio Yoshida (NIES)		Session 3	140
	3.12	Improved CO2 retrievals with modified aerosol information using GOSAT measurements over East-Asia	Yeonjin Jung (Pukyong National University)		Session 3	134
	3.13	A machine learning approach to fill the gap in global XCO2 using multiple satellite measurements	Jonghyuk Lee (Seoul National University)		Session 3	131
	3.14	Updates of retrieval algorithm for GOSAT-2/TANSO-FTS-2 TIR bands	Naoko Saitoh (Chiba University)		Session 3	121
	3.15	Sensitivity analysis of XCH4 retrieval algorithm for the Narsha microsatellites	Jaemin Hong (Seoul National University)		Session 3	119
	3.16	Advances on the emission estimation using the divergence method for individual satellite overpasses with noise reduction	Anssi Koskinen (FMI/University of Helsinki)		Session 3	98
	3.18	Monitoring formic acid emissions from GOSAT-2 satellite observations	Fengxin Xie (The University of Tokyo)		Session 3	92
	3.19	Comparative validation of satellite-based GHG observations using FTS	Minju Kang (Ewha Womans University)		Session 3	74
	3.20	Air mass factor calculation using deep neural network	Yajun Xu (NICT)		Session 3	44
	3.21	Reprocessing the GOSAT TANSO-FTS record via ACOS v11 full physics retrieval algorithm	Christopher O'Dell (CSU/CIRA)		Session 3	34
	3.22	Retrieving the Vertical Profiles of Carbon Dioxide (CO2) and Methane (CH4) Using TCCON Fourier Transform Spectrometer (FTS)	Man-Hae Kim (Seoul National Unversity)		Session 3	28
	3.23	Satellite Multi-Band Multi-Path Approaches for Methane Quantification	Wook Kang (Yonsei University)		Session 3	22
	3.24	Dual-domain injection network for methane plumes segmentation	Yuquan Liu (Hefei Institutes of Physical Science, CAS)		Session 3	16
	4.20	What to expect from the HITRAN2024 database?	Thibault Bertin (Center for Astrophysics, Harvard & Smithsonian)		Session 4	112
	4.14	Inverse modeling of GOSAT observations and machine learning predictions highlight the role of wet tropics in driving the 2020-2022 methane surge	Zhen Qu (North Carolina State University)		Session 4	11
	4.15	Establishing an Arctic-Boreal Earth science, Cal/Val supersite at the FMI Arctic Space Centre in Sodankylä	Hannakaisa Lindqvist (FMI)		Session 4	164
	4.16	Pre-launch and on-orbit spectral calibration of MethaneSAT	David Miller (Harvard University)		Session 4	155
	4.17	Validation plan for GOSAT-GW TANSO-3 Level 2 products	Hirofumi Ohyama (NIES)		Session 4	149
	4.18	Greenhouse gases validation and monitoring over the East Asia by satellite based observation	Eunha Sohn (NMSC/KMA)		Session 4	139
	4.21	An Overview of the Multi-instrument Dataset Collected during the 2023 AEROMMA Campaign	Dustin Roten (JPL/Caltech)		Session 4	107
	4.22	Aircraft-based CO2 and CH4 vertical distributions at the Anmyeon-do GAW site and the Yellow Sea in Korea for satellite retrievals validation	Sunran Lee (National Institute of Meteorological Sciences)		Session 4	88
	4.23	Short- and long-term ground-based FTIR GHG measurements at the Qinghai-Tibetan Plateau and contributes to satellite validation	Minqiang Zhou (Institute of Atmospheric Physics, CAS)		Session 4	57
	4.24	Validation of the latest GOSAT series L2 products	Yukitomo Tsutsumi (NIES)		Session 4	42
	4.25	Calibration and performance of MethaneSat and GeoXO-ACX at BAE Systems Inc.	Betsy Farris (BAE Systems, Inc.)		Session 4	32
	4.26	The HITRAN2024 methane update	Thibault Bertin (Center for Astrophysics, Harvard & Smithsonian)		Session 4	31
	5.19	Capacity of observing systems to estimate CH4 fluxes at regional and sectorial scales through OSSEs	Nicole Montenegro (LSCE)		Session 5	161
	5.20	The Community Inversion Framework: A Flexible and Scalable Data Assimilation Framework for Satellite Greenhouse Gas Observations	Adrien Martinez (LSCE)		Session 5	159
	5.21	Localized CO2 enhancements observed by the GOSAT satellite and their relation to country-level anthropogenic emissions	Rajesh Janardanan (NIES)		Session 5	146
Day 2	5.22	Global carbon dioxide and methane flux estimates based on GOSAT-2 observations	Makoto Saito (NIES)		Session 5	137
	5.23	Quantifying Indian terrestrial biospheric CO2 flux using observations from ground-based network and GOSAT	Lorna Raja Nayagam (NIES)		Session 5	125
	5.24	Development of the OCO-2 inverse analysis system introducing independent bias correction method	Takashi Maki (MRI)		Session 5	123
	5.25	Preliminary CO2 flux inversion results from the OCO-2 v11 MIP	David Baker (CSU/CIRA)		Session 5	122
	5.28	Integrating Isotopic, Satellite, and Modeling Techniques for Enhanced Methane Flux Estimation in Global CH4 Monitoring	Dmitry Belikov (Chiba University)		Session 5	79
	5.29	Differentiable Land Model Reveals Global Environmental Controls on Latent Ecological Functions	Kevin Bowman (JPL/Caltech)		Session 5	77

	5.30	Investigating the causes of increasing methane emissions from Africa using inverse analysis of TROPOMI satellite observations	Nicholas Balasus (Harvard University)		Session 5	72
	5.33	CH4 emissions estimates and sensitivity analysis using STILT-inversion over South Korea (2010-2021)	Samuel Takele Kenea (National Institute of Meteorological Sciences)		Session 5	35
	5.34	Using satellite data and atmospheric inversion modelling to estimate global and high resolution CO2 budgets: project FICOCOSS	Anteneh Mengistu (FMI)		Session 5	12
	5.36	Global Methane Flux Estimates Using the GOSAT Partial Column Retrievals and CTE-CH4 Atmospheric Inverse Model	Aki Tsuruta (FMI)		Session 5	156
	5.37	The integrated Land Ecosystems Atmospheric Processes Study (iLEAPS)	Masayuki Kondo (Hiroshima University)		Session 5	170
	5.38	Global carbon budgets estimated from atmospheric O2 and CO2 observations in the western Pacific over a 20-year period	Yasunori Tohjima (NIES)		Session 5	171
	6.13	Utilization of GEMS and OCO-3 data on the identification of CO2-NO2 relationship and CO2 emission estimation in Asian Urban areas	Yun Gon Lee (Chungnam National University)		Session 6	142
	6.14	High resolution CO2 simulation over Kanto region in Japan	Jagat Bisht (NIES)		Session 6	135
	6.15	The role of satellite observations in constraining urban CO2 emissions	Sojung Sim (Seoul National University)		Session 6	130
	6.16	Estimating urban CH4 emissions from satellite-derived enhancement ratios of CH4, CO2, and CO	Jon-Paul Mastrogiacomo (University of Toronto)		Session 6	113
	6.17	Maximizing the Use of Spatial Information in Dense XCO2 Observations for Bayesian Inversions	Dustin Roten (JPL/Caltech)		Session 6	100
	6.20	High resolution methane modelling using satellite observations: a case study of the coal mining region in New South Wales in Australia	Ida Jandl (University of Melbourne)		Session 6	38
	6.21	COCCON-Spain: Toward an Integrated Greenhouse Gas Observation System in Spain	Eliezer Sepulveda (AEMET-TRAGSATEC)		Session 6	37
	6.22	CO2 emissions from China and their impact on Japan's coastal regions inferred from ΔXCO2/ΔXCH4 of GOSAT and GOSAT-2 observations	Yusuke Hayashi (Chiba University)		Session 6	36
	6.23	Carbon dioxide emission quantification and validation for the Carbon Mapper Coalition/Tanager-1 satellite	Jinsol Kim (Carbon Mapper)		Session 6	25
	6.24	Characteristics of methane in South Asia inferred from enhancement ratios of greenhouse gas concentrations based on satellite observations	Taichi Yoshii (Chiba University)		Session 6	24
	6.25	withdrawn				
	6.26	Deep-learning-based point source emission estimation for future satellite missions	Thomas Plewa (Heidelberg University)		Session 6	94
Day 3	6.27	Urban CO2 simulations for the Greater Tokyo Area based on high-resolution modeling and comparison with tower observation network	Zhenglun Yang (NIES)		Session 6	169
	7.07	Estimation of CO2 and NOx emissions using the divergence method applied to pseudo satellite observations	Masahiro Yamaguchi (JAMSTEC)		Session 7	150
	7.08	The SMART-s NO2 vertical profile products from Pandora for GOSAT-GW validation	Serin Kim (Pukyong National University)		Session 7	136
	7.09	High-precision monitoring of combustion-origin CO2 concentrations in a megacity using simultaneous observations of CO2 and other combustion-origin species	Hitoshi Irie (Chiba University)		Session 7	128
	7.10	Retrieval algorithm development for TANSO-3 NO2 product	Tamaki Fujinawa (NIES)		Session 7	105
	7.11	Estimation of Direct Aerosol Radiative Forcing in Urban Areas of South Korea Using GEMS AOD and a Radiative Transfer Model	Juhee Lee (Yonsei University)		Session 7	87
	7.12	Comparison of morning-afternoon difference of AOD in Southeast Asia	Seonggyun Na (Yonsei University)		Session 7	86
	7.13	Development Of A Simple NOx Emission Estimation Method Using Satellite Observations And A Chemistry-Transport Model	Yousuke Yamashita (NIES)		Session 7	75
	7.15	Evaluation of aerosol layer height using O2-O2 and O2-A band from TANSO-3/GOSAT-GW	Hyunkwang Lim (NIES)		Session 7	51
	7.17	Top-down estimates of European emissions of black carbon for 2022	Saurabh Annadate (University of Urbino)		Session 7	30