May 22, 2013, Ver.4 (final)

IWGGMS-9

May 29 (Wed) p.m. - 31 (Fri), 2013
Yokohama Symposia

~ Agenda ~

DAY 1: May 29 (Wed), 2013 (Core session time: 14:00 – 17:30)

13:10 Open
13:10-14:00 Registration *(Poster board available, poster setup from 13:10)
14:00-14:15 Plenary session– Opening
Logistics — Tatsuya Yokota, NIES (2 min.)
Welcome speech — Akimasa Sumi, NIES President (5 min.)
Welcome speech — Ministry of the Environment, Japan (5 min.)
IWGGMS history — Tatsuya Yokota, NIES, IWGGMS-9 Local Organizer (3 min.)

14:15-15:15 Plenary session– Presentations (1)
Chairperson: G. Inoue (GOSAT Science Team Chief Scientist)

1. 14:15-14:35
Global space-based observations of CO_2: From SCIAMACHY to CarbonSat
Michael Buchwitz, et al. (U. Bremen, Germany)

2. 14:35-14:55
Progress of GOSAT Project in 2012 and 2013
Tatsuya Yokota, et al. (NIES, Japan)

3. 14:55-15:15
The OCO-2 Mission – the Next Step in Space-Based CO_2 Measurements
David Crisp, et al. (JPL/Caltech, USA)

15:15-15:50 Group photo & Coffee & tea break (35 min.)

15:50-17:30 Plenary session– Presentations (2)
Chairperson: D. Crisp (JPL/Caltech, USA)

4. 15:50-16:10
The Status of Chinese Carbon Dioxide Observation Satellite (TanSat)
Yi Liu, et al. (IAP/CAS, China)

5. 16:10-16:30
Lessons and Learned from GOSAT towards GOSAT-2
Hiroshi Suto, et al. (JAXA, Japan)

6. 16:30-16:50
Status of the CNES / MicroCarb small satellite for CO_2 measurement
Denis Jouglet, et al. (CNES, France)

7. 16:50-17:10
CarbonSat, ESA's Earth Explorer 8 Candidate: Mission Overview
Yasjka Meijer, et al. (ESA, The Netherlands)

8. 17:10-17:30
NASA's planned GHG missions and timelines
Ken Jucks, et al. (NASA HQ, USA)

- Day 1 Adjourn -

DAY 2: May 30 (Thu), 2013 (Core session time: 8:45– 17:15)

8:15 Open

8:45-9:45 Session I Future Missions

Chairperson: T. Yokota (NIES, Japan)

9. 8:45-9:00

The Proposed OCO-3 Mission

Annmarie Eldering, et al. (JPL/Caltech, USA)

10. 9:00-9:15

Recent Advancements in Airborne Laser CO_2 and O_2 Column Measurements

Edward V. Browell, et al. (NASA/LaRC, USA)

11. 9:15-9:30

Pulsed Lidar Measurements of Atmospheric CO_2 Column Absorption, Range and Surface Reflectivity in the ASCENDS 2013 Airborne Campaign

James Abshire, et al. (NASA/GSFC, USA)

12. 9:30-9:45

Quasi-geostationary observations of CO_2 from a highly elliptical orbit (HEO): a potential method for monitoring northern CO_2 fluxes

Ray Nassar, et al. (Environment Canada, Canada)

9:45-10:15 Coffee & tea break (30 min.)

10:15-12:00 Session II Poster Session

12:00-13:30 Lunch break (90 min.)

13:30-14:30 Session III Calibration / In-situ Measurements / Applications

Chairperson: K. Shiomi (JAXA/EORC, Japan)

13. 13:30-13:45

Level1 Algorithm for TANSO-FTS on GOSAT: Calibration and Correction of four years data

Akihiko Kuze, et al. (JAXA, Japan)

14. 13:45-14:00

Vicarious Calibration at Railroad Valley: OCO-2 Readiness

Florian M. Schwandner, et al. (JPL, USA)

15. 14:00-14:15

New methods to measure photosynthesis from space: Chlorophyll Fluorescence

Christian Frankenberg, et al. (JPL/Caltech, USA)

16. 14:15-14:30

The Carbon in Arctic Reservoirs Vulnerability Experiment (CARVE) FTS: Preliminary Results From 2012/2013 Ground-Based, Test Flights, and Science Operations

Thomas P. Kurosu, et al. (JPL, USA)

14:30-16:00 Session IV Algorithm

Chairperson: M. Buchwitz (U. Bremen, Germany)

17. 14:30-14:45

An overview of ACOS Build 3.3 XCO_2 retrievals from GOSAT and first validation results

Christopher O'Dell, et al. (Colorado S. U., USA)

18. 14:45-15:00

Atmospheric CO_2 retrievals from GOSAT TANSO-FTS data and status on related French activities

Claude Camy-Peyret, et al. (IPSL/UPMC, France)

15:00 -15:30 Coffee & tea break (30 min.) (*Poster removal by 15:30)

19. 15:30-15:45

Column Retrievals of CO_2 and CH_4 from GOSAT

Hartmut Boesch, et al. (U. Leicester, UK)

20. 15:45-16:00

Seasonal carbon uptake as seen from an improved version of RemoTeC

Andre Butz, et al. (KIT, Germany)

16:00-16:45 Session V GHG Results and Comparison

Chairperson: H. Boesch (U. Leicester, UK)

21. 16:00-16:15

Carbon dioxide retrieval from IASI/Metop-A measurements and comparison with TANSO-FTS/GOSAT SWIR products

Ugo Cortesi, et al. (IFAC-CNR, Italy)

22. 16:15-16:30

The Covariation of Northern Hemisphere Summertime CO_2 with Surface Temperature at Boreal Latitudes

Debra Wunch, et al. (Caltech, USA)

23. 16:30-16:45

N_2O and CH_4 Observation using Thermal Infrared Sounders AIRS, IASI and CrIS

Xiaozhen Xiong, et al. (NOAA/NESDIS/STAR & IMSG, USA)

16:45-17:15 Session VI Inverse Modeling (1)

Chairperson: S. Maksyutov (NIES, Japan)

24. 16:45-17:00

Role of GOSAT total column CO_2 observations in the estimation of CO_2 surface fluxes

Abhishek Chatterjee, et al. (NCAR, USA)

25. 17:00-17:15

Modeling the column-integrated signal from a point-source: Progress and Problems

Peter Rayner, et al. (U. Melbourne, Australia)

- Day 2 Adjourn -

18:00 -19:30 Reception

DAY 3: May 31 (Fri), 2013 (Core session time: 8:45– 16:00)

8:15 Open

8:45-10:00 Session VII Inverse Modeling (2) CO_2

Chairperson: A. Eldering (JPL/Caltech, USA)

26. 8:45-9:00
Inverse modeling of the regional CO_2 fluxes with GOSAT XCO_2 observations
Shamil Maksyutov, et al. (NIES, Japan)

27. 9:00-9:15
Inter-comparison of surface CO_2 fluxes estimated from latest GOSAT XCO_2 products using a single inverse modeling scheme
Hiroshi Takagi, et al. (NIES, Japan)

28. 9:15-9:30
Quantifying Regional Sources and Sinks of Atmospheric CO_2 from GOSAT XCO_2 Data
Dylan Jones, et al. (U. Toronto, Canada)

29. 9:30-9:45
Validation of GOSAT CO_2 flux product over the grassland
Li Zhang, et al. (IRSDE/CAS, China)

30. 9:45-10:00
Vegetation Fires and Air Pollution in South Asia – Analysis from Multi-Satellite Datasets
Krishna Vadrevu, et al. (U. Maryland, USA)

10:00-10:30 Coffee & tea break (30 min.)

10:30-11:30 Session VIII Inverse Modeling (3) Regional CO_2/Large Point Sources

Chairperson: D. Jones (U. Toronto, Canada)

31. 10:30-10:45
Estimating the 2010 flux CO_2 anomaly over Eurasia from a source-sink inversion of GOSAT XCO_2: Is there a robust feature?
Sourish Basu, et al. (SRON, The Netherlands)

32. 10:45-11:00
Large point source emissions signatures seem from Space
Tom Oda, et al. (CSU-NOAA, USA)

33. 11:00-11:15
Estimation of CO_2 emission strength from a mega-sized city using satellite and in situ observation data
Ryoichi Imasu, et al. (AORI/U. Tokyo, Japan)

34. 11:15-11:30
Diagnose of GHG Emission Over Indonesian Area Using GOSAT (Greenhouse Gases Observing Satellite) Data
Muhammad Evri, et al. (BPPT, Indonesia)

11:30-13:00 Lunch break (90 min.)

13:00-14:15 Session IX Inverse Modeling (4) CO_2 and related species/Assimilation

Chairperson: R. Imasu (AORI/U. Tokyo, Japan)

35. 13:00-13:15
Patterns of CO_2 Sensitivity to CO from Space and their Implications for Carbon Monitoring
Sam Silva, et al. (U. Arizona, USA)

36. 13:15-13:30
Characterization of biomass burning from combined analysis using SCIAMACHY, GOSAT and MOPITT
Sachiko Hayashida, et al. (Nara W. U., Japan)

37. 13:30-13:45
Interpreting Variations in Terrestrial Carbon Exchange in Tropical Regions Using GOSAT XCO_2 and Fluorescence
Nicholas Parazoo, et al. (JPL/JIFRESSE, USA)

38. 13:45-14:00
Satellite bias estimation by independent inverse analysis
Takashi Maki, et al. (MRI, Japan)

39. 14:00-14:15
Estimate of anthropogenic carbon fluxes from high spatial resolution CO_2 observations: Error estimates
Francois-Marie Breon, et al. (CEA/LSCE, France)

14:15 -14:45 Coffee & tea break (30 min.)

14:45-15:45 Session X Inverse Modeling (5) CH_4
Chairperson: S. Hayashida (Nara W. U., Japan)

40. 14:45-15:00
MACC-II analysis of tropospheric CH_4
Sebastien Massart, et al. (ECMWF, UK)

41. 15:00-15:15
Estimating regional methane surface fluxes using GOSAT XCH_4 observations
Annemarie Fraser, et al. (U. Edinburgh, UK)

42. 15:15-15:30
On the consistency between global and regional methane emissions inferred from SCIAMACHY, TANSO-FTS, IASI and surface measurements
Cindy Cressot, et al. (LSCE, France)

43. 15:30-15:45
Seasonality in Fossil Fuel Industrial Emissions based on Surface and Satellite Transcontinental Data
Ira Leifer, et al. (UCSB, USA)

15:45-16:00 Closing Session

Next IWGGMS-10 Plan	IWGGMS-9 Committee (6 min)
Closing address	Gen Inoue (GOSAT Science Team Chief Scientist) (6 min.)
Closing remarks	IWGGMS-9 Local Organizer (3 min.)

Poster Presentations

Core Time: Day 2, May 30 (Thu) 10:15-12:00 (105 min.)
(Poster board: 900mm(H) x 1800mm(W) for A0 Landscape size)

1 Tommy Taylor, et al. (Colorado S. U., USA)
Evaluation of radiometric degradation of GOSAT TANSO-FTS via analysis of derived surface albedo

2 Yukio Yoshida, et al. (NIES, Japan)
Extension of the targets for the GOSAT SWIR XCO_2 and XCH_4 retrievals

3 Andrey Bril, et al. (NIES, Japan)
Retrievals of atmospheric CO_2, CH_4 and optical path modifications from the GOSAT observations

4 Nobuhiro Kikuchi, et al. (NIES, Japan)
An Algorithm for Greenhouse Gas Retrievals Using Polarization Information Measured by GOSAT TANSO-FTS

5 Makoto Inoue, et al. (NIES, Japan)
Validation of GOSAT SWIR XCO_2 and XCH_4 using TCCON data: Parameter dependency of GOSAT biases and the bias correction

6 Nikita Rokotyan, et al. (INS, Ural federal U., Russia)
Series of measurements from new possible validation site at Kourovka

7 Mai Ouchi, et al. (Nagoya U., Japan)
Comparison of CO_2 column concentrations calculated from GOSAT SWIR with balloon-borne CO_2 instrument measurements

8 Megumi Yamamoto, et al. (Nara W. U., Japan)
Comparison of GOSAT XCH_4 and airborne measurements over Siberia

9 Tetsu Sakai, et al. (MRI, Japan)
Impact of aerosols and cirrus clouds on the GOSAT-observed CO_2 and CH_4 inferred from ground-based lidar, skyradiometer and FTS data at prioritized observation sites

10 Christian Frankenberg, et al. (JPL/Caltech, USA)
Aerosol information content analysis of multi-angle high spectral resolution measurements and its benefit for high accuracy greenhouse gas retrievals

11 Kumi Nakamae, et al. (NIES, Japan)
Lidar observation of the 2011 Puyehue volcanic aerosols at Lauder, New Zealand

12 Hartmut Boesch, et al. (U. Leicester, UK)
The Amazonian Carbon Observatory Network

13 Hartmut Boesch, et al.. (U. Leicester, UK)
The GreenHouse gas Observations in the Stratosphere and Troposphere (GHOST) Instrument

14 Kam Weng (Clare) Wong, et al. (JPL, USA)
Mapping greenhouse gas emissions in the Los Angeles basin by remote sensing using a Fourier Transform Spectrometer on Mount Wilson

15 Kei Shiomi, et al. (JAXA, Japan)
Characterization of GOSAT TANSO Level 1 V160.160 TIR spectra

16 Naoko Saitoh, et al. (CEReS/Chiba U., Japan)
Profiles of CO_2 and CH_4 retrieved from GOSAT/TANSO-FTS thermal infrared spectra using an improved algorithm

17 Jonathan Gero, et al. (U. Wisconsin, USA)
GOSAT TIR Band Inter-calibration with Satellite Infrared Sensors

18 Jhoon Kim, et al. (Yonsei U., Korea)
Quantification of radiative forcing of CO_2 and Absorbing Aerosol from GOSAT with the aid of Asia Carbon Tracker

19 Yu Someya, et al. (AORI/U. Tokyo, Japan)
PSC and cirrus cloud detection over the high latitudes using thermal infrared spectra observed by TANSO-FTS/GOSAT

20 David Baker, et al. (CIRA/Colorado S. U., USA)
Evaluating the benefits of in situ, TCCON, and GOSAT CO_2 measurements using independent data comparisons

21 Rajesh Janardanan Achari, et al. (NIES, Japan)
Impact of high resolution meteorological fields on simulation of high frequency variability of CO_2 concentration using FLEXPART with 1km flux maps

22 Dmitry A. Belikov, et al. (NIES, Japan)
Developing adjoint of the coupled Eulerian-Lagrangian transport model

23 Alexander Lukyanov, et al. (CAO, Russia)
Forward and inverse modeling of CO_2

24 Heon-Sook Kim, et al. (NIES, Japan)
Regional CH_4 flux estimates based on GOSAT SWIR L2 and ground-based observations

25 Akihide Kamei, et al. (NIES, Japan)
Development of the GOSAT-2 FTS Simulator

26 Denis Jouglet, et al. (CNES, France)
Estimation of CNES / MicroCarb performances at level 1 and level 2

27 Gregoire Broquet, et al. (LSCE – UVSQ, France)
Potential of the remote sensing of CO_2 by Sentinel-5 for the estimate of CO_2 natural and anthropogenic fluxes

28 Otto Hasekamp, et al. (SRON, The Netherlands)
Satellite remote sensing of methane: Sentinel-5 Precursor in Perspective of GOSAT

29 Anand Ramanathan, et al. (ORAU/NASA, USA)
Analysis of Pulsed Lidar Measurements of Atmospheric CO_2 Column Absorption from the ASCENDS 2011 Airborne Campaign

30 Anand Ramanathan, et al. (ORAU/NASA, USA)
Pulsed Lidar Measurements of Atmospheric CO_2 Column Absorption from the ASCENDS Airborne Campaigns

31 Haris Riris, et al. (NASA/GSFC, USA)
Airborne lidar measurements of atmospheric pressure for the ASCENDS mission using the oxygen A-band at 765 nm

32 Jianping Mao, et al. (NASA/GSFC, USA)
Retrieval of Vertical Structure of Atmospheric CO_2 Concentration from Airborne IPDA Lidar Measurements of CO_2 and O_2 Absorption during the 2011 ASCENDS Science Campaign

33 Michael Buchwitz, et al. (U. Bremen, Germany):[Post deadline]
Carbon Monitoring Satellite (CarbonSat): Error analysis for XCO_2, XCH_4 and secondary products such as Vegetation Chlorophyll Fluorescence

34 Bing Lin, et al. (NASA/LaRC, USA):[Moved from Oral]
Modeling of Space Laser Absorption Spectrometry for Atmospheric CO_2 Column Measurements

35 Zhaocheng Zeng, et al. (IRSDE/CAS, China):[Moved from Oral]
Approach for Clustering Spatio-Temporal Carbon Dioxide Data Using Satellite Observations