

Remote sensing

09.00 – 09.15

First Airborne Laser Remote Measurements of Atmospheric Carbon Dioxide for Future Active Sensing of Carbon Dioxide from Space

Edward V. Browell (Hampton/US), Michael E. Dobbs, Jeremy Dobler (Fort Wayne/US), Susan A. Kooi, Yonghoon Choi, F. Wallace Harrison (Hampton/US), Berrien Moore III (Princeton/US), T. Scott Zaccheo (Lexington/US)

09.15 – 09.30

High-latitude carbon exchange estimated from co-variation of CO₂ and potential temperature

Gretchen Keppel-Aleks, Paukl Wennberg, Tapio Schneider (Pasadena/ES), Stephanie Vay (Hampton/US)

09.30 – 09.45

Integration of column measurements into the existing in-situ network for greenhouse gas measurements in Europe

Justus Notholt, Thorsten Warneke, Janina Messerschmidt, Christine Weinzierl (Bremen/DE)

09.45 – 10.00

Greenhouse Gases Observation from Space -Initial Operations Results from TANSO on GOSAT-

Akihiko Kuze, Hiroshi Suto, Kei Shiomi, Masakatsu Nakajima, Takashi Hamazaki (Tsukuba/JP)

11.30 – 11.45

Initial Validation of GOSAT Standard Products

Osamu Uchino, Isamu Morino, Mitsunori Araki, Tatsuya Yokota (Tsukuba/JP), Paul Wennberg, Geoff Toon (Pasadena/ES), Justus Notholt (Bremen/DE), David Griffith (Wollongong/AU), Vanessa Sherlock (Wellington/NZ), Toshinobu Machida, Hidekazu Matsueda, Yousuke Sawa (Tsukuba/JP)

11.45 – 12.00

Simultaneous retrieval of tropospheric CO₂ and CH₄ in the tropics from spaceborne hyperspectral infrared observations: 6 years from Aqua/AIRS and 2 years from MetOp/IASI

Cyril Crevoisier, Delphine Nobileau, Alain Chédin (Palaiseau/F), Hidekazu Matsueda, Toshinobu Machida (Tsukuba/JP), Arlene M. Fiore (Princeton/US), Raymond Armante, Noëlle A. Scott (Palaiseau/F)

Model and data assimilation developments

12.00 – 12.15

Diurnal and synoptic variations in atmospheric CO₂: a model dataset for comparison with in-situ observations.

Rachel Law (Aspendale/AU), Prabir Patra (Yokohama/JP), Paul Krummel, Paul Steele (Aspendale/AU), Wlodek Zahorowski (Menai/GB)

12.15 – 12.30

Projecting terrestrial carbon cycling with uncertainties: results from a Carbon Cycle Data Assimilation System (CCDAS)

Marko Scholze (Bristol/GB), Thomas Kaminski, Ralf Giering (Hamburg/DE), Peter Rayner (Gif-sur-Yvette/F), Wolfgang Knorr (Bristol/GB)

14.30 – 14.45

CONTRAIL-Transport Model Intercomparison (TMI): analysis of CO₂ vertical profiles

Yosuke Niwa (Kashiwa/J), Prabir Patra (Yokohama/J), Yousuke Sawa, Toshinobu Machida, Shamil Maksyutov, Hidekazu Matsueda (Tsukuba/J), Masaaki Ikegami (Tokyo/J), Ryoichi Imasu (Kashiwa/J), Takashi Maki (Tsukuba, Tokyo/J), Takakiyo Nakazawa (Yokohama, Sendai/J), Tomohiro Oda (Tsukuba/J), Masaki Satoh (Kashiwa, Yokohama/J)

14.45 – 15.00

Regional North American CO₂ Fluxes Estimated for 2004 using a Geostatistical Inverse Model with an Intercomparison to Bottom-up Flux Estimates

Sharon Gourdj, Deborah Huntzinger, Vineet Yadav, Kim Müller (Ann Arbor/US), Adam Hirsch (Golden/US), Arlyn Andrews, Gabrielle Petron, Michael Trudeau (Boulder/US), Anna Michalak (Ann Arbor/US)

15.00 – 15.15

Large scale carbon fluxes from a synthesis of state of the art atmospheric inversions

Philippe Peylin (Gif sur Yvette/F), Kevin Gurney (Purdue/US), Christian Rödenbeck (Jena/DE), Peter Rayner (Gif sur Yvette/F), Wouters Peters, Andy Jacobson (Boulder/US), Sander Houweling (Utrecht/NL), Anna Michalak (Ann Arbor/US), Prabir Patra (Yokohama/J), Frederic Chevallier, Philippe Ciais, Zegbeu Poussi (Gif sur Yvette/F), Rachel law (Melbourne/AU)

15.15 – 15.30

Atmospheric monitoring at geological carbon storage facilities: characterising and improving detection limits

Zoe Loh (Aspendale/AU), David Etheridge (Aspendale, Melbourne, Canberra/AU), Ray Leuning (Melbourne, Canberra/AU), L. Paul Steele (Aspendale, Melbourne/AU), Paul Krummel (Aspendale, Melbourne/AU), Darren Spencer (Aspendale, Melbourne/AU), Steve Zegelin (Melbourne, Canberra/AU)

Measurement technology

17.00 – 17.15

Recent advances in CO₂ isotope ratio measurements using quantum cascade lasers

Bela Tuzson, Lukas Emmenegger (Dübendorf/CH)

17.15 – 17.30

Airborne Observations of Atmospheric O₂ and CO₂ on Regional to Global Scales

Britton Stephens (Wellington/NZ, Boulder/US), Stephen Shertz, Andrew Watt (Boulder/US), Jonathan Bent, Ralph Keeling (La Jolla/US), Steven Wofsy, Bruce Daube, Rodrigo Jimenez, Eric Kort (Cambridge/US), Sara Mikaloff-Fletcher (Wellington/NZ)

17.30 – 17.45

Ship-based Measurement of Air-Sea CO₂ Exchange by Eddy Covariance

Scott Miller (Albany/US), Christa Marandino (Kiel/DE), Eric Saltzman (Irvine/US)

17.45 – 18.00

High Resolution pCO₂ Measurements from Profiling Floats - A Promising Approach for in situ Determination of Air-Sea Fluxes of CO₂ and O₂ in the Tropical Eastern North Atlantic

Bjoern Fiedler, Arne Koertzing (Kiel/DE)

18.00 – 18.15

Boundary layer measurements of coral reef net production and calcification

Chris Langdon (Miami/US), Brice Loose, Wade McGillis (Palisades/US)