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Small Closed-Path CO₂/H₂O Gas Analyzer for Eddy Covariance Measurements

George Burba, Michael Furtaw, Dayle McDermitt (Lincoln-Nebraska/US)

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Measuring Methane Flux with Fast Portable Open-Path Gas Analyzer

George Burba, Tyler Anderson, Dayle McDermitt, Liukang Xu (Lincoln/US), Jessica Schedlbauer (Miami/US)

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An estimate of the CO₂ flux in 2006 over Europe using the two-step high-resolution regional atmospheric inversion scheme

Kristina Trusilova, Christian Rödenbeck, Christoph Gerbig, Martin Heimann (Jena/DE)

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CARBONTRACKER: Sensitivity to Potential Systematic Bias in CO₂ Observations

Ken Masarie, Arlyn Andrews, Lori Bruhwiler, Andy R. Jacobson, John B. Miller, Gabrielle Petron, Pieter Tans (Boulder/US), Wouter Peters (Boulder/US, Wageningen/NL)

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The impact of CO₂ fertilization on the global terrestrial carbon cycle and interannual changes in CO₂ studied through a carbon cycle data assimilation system

Tomomichi Kato (Bristol/GB, Yokohama/JP), Marko Scholze, Wolfgang Knorr (Bristol/GB)

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Kazuyuki Miyazaki (Yokohama City/JP)

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Georgii Alexandrov, Tsuneo Matsunaga (Tsukuba/JP)

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Estimation of the carbon balance components of heterogeneous agricultural landscape using tall tower based and remotely sensed data

Gyorgyi Gelybo, Zoltan Barcza, Aniko Kern (Budapest/HU), Natascha Kljun (Swansea/GB), Laszlo Haszpra (Budapest/HU)

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Xibin Ji, Wenzhi Zhao, Ersi Kang, Zhihui Zhang, Bowen Jin (Lanzhou/CN)

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Diane Knappett, Paul Monks, Hartmut Boesch (Leicester/GB)

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Naoko Saitoh, Ryoichi Imasu (Kashiwa/JP)

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High resolution modeling of CO₂ over Europe: implications for remote sensing

Dhanyalekshmi Pillai, Christoph Gerbig, Roberto Kretschmer (Jena/DE), Ravan Ahmadov (Boulder/US), Ute Karstens, Julia Marshall (Jena/DE)

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William Massman, John Frank (Fort Collins/US)

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Takashi Maki (Tsukuba/JP), Masaaki Ikegami, Tatsuru Fujita (Tokyo/JP), Yousuke Sawa, Hidekazu Matsueda, Kiyotaka Shibata (Tsukuba/JP), Yosuke Niwa (Kashiwa/JP), Prabir Patra (Yokohama/JP), Toshinobu Machida (Tsukuba/JP)

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Makoto Saito, Akihiko Ito, Dmitry Belikov, Tomohiro Oda, Shamil Maksyutov (Tsukuba/JP)

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Cédric Bacour (Gif-Sur-Yvette,Toulouse/F), Philippe Peylin (Thivernal-Grignon/F), Peter Rayner, François Delage (Gif-Sur-Yvette/F), Marie Weiss (Avignon/F), Jérôme Demarty (Montpellier/F), Frédéric Baret (Avignon/F), Frédéric Chevallier (Gif-Sur-Yvette/F), Pascal Prunet (Toulouse/F)

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Gernot Friederich (Moss Landing/US), Patricia Matrai (Boothbay Harbor/US), Francisco Chavez (Moss Landing/US)

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Akira Wada (Kashiwa/JP), Shohei Murayama, Hidekazu Matsueda, Yousuke Sawa, Kazuhiro Tsuboi, Hiroaki Kondo, Shoichi Taguchi (Tsukuba/JP), Yuji Esaki (Tokyo/JP)

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Global distribution of CO₂ concentration estimated by an inversion method

Kazutaka Yamada, Takashi Maki, Tatsuru Fujita, Takatoshi Hirahara, Masaaki Ikegami, Ayako Takeuchi, Kazuto Suda (Tokyo/JP)

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CONTRAIL-Transport Model Intercomparison (TMI): analysis of CO₂ concentrations in the UT/LS region

Prabir Patra (Yokohama/Jp), Y. Niwa (Chiba/Jp), Y. Sawa, D. Belikov (Tsukuba/Jp), R. Imasu (Chiba/Jp), T. Maki, T. Machida, S. Maksyutov, H. Matsueda, T. Oda (Tsukuba/Jp), T. Nakazawa (Sendai/Jp), M. Takigawa (Yokohama/Jp)

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Yosuke Niwa, Ryoichi Imasu (Kashiwa/Jp), Hidekazu Matsueda, Yousuke Sawa, Toshinobu Machida (Tsukuba/Jp), Masaki Satoh (Kashiwa, Yokohama/Jp)

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Top-down estimates of European net CO₂ exchange from CarbonTracker Europe

Wouter Peters (Wageningen/NL), John B. Miller, Kevin Schaefer (Boulder/US), Guido van der Werf, A.J. Dolman (Amsterdam/NL), Sander Houweling (Utrecht/NL), Maarten Krol (Wageningen/NL), Pieter P. Tans (Boulder/US)

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ICON - a new In-situ Capability for O₂/N₂ Measurements from airborne Platforms

Julia Steinbach, Christoph Gerbig, Karl Kübler, Reimo Leppert, Frank Voigt, Bernd Schlöffel (Jena/DE)

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Local-scale carbon cycle data assimilation using satellite-derived FAPAR and a simple phenology model

Wolfgang Knorr (Bristol/GB), Thomas Kaminski (Hamburg/DE), Marko Scholze (Bristol/GB), Nadine Gobron, Bernard Pinty (Ispra/IT), Ralf Giering (Hamburg/DE), Pierre-Philippe Mathieu (Frascati/IT)

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Romina Sancj, Héctor Osvaldo Panarello (Ciudad Autónoma de Buenos Aires/BR)

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Ground based total column and in situ measurements of CO₂, CH₄ and other trace gases in the Southern Hemisphere

David Griffith, Nicholas Deutscher, Ronald Macatangay, Nicholas Jones, Clare Paton Walsh (Wollongong/AU), Vanessa Sherlock (Wellington, Lauder/NZ), Brian Connor (Alexandra/NZ), John Robinson, Dan Smale, Britt Stevens (Wellington, Lauder/NZ), Team TCCON (Pasadena/US)

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Experimental Determination of Overlap Correction for elastic LIDAR Systems Using an Iterative Technique

Gionata Biavati (Jena/DE), Guido Di Donfrancesco, Francesco Cairo (Frascati/IT), Dietrich Feist (Jena/DE)

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Title Application of ceilometers to retrieve planetary boundary layer height and its sub layers near tall-tower sites

Gionata Biavati, Dietrich Feist (Jena), Irène Xueref-remy (Cedex/F)

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Carbon sources and sinks from an Ensemble Kalman Filter ocean data assimilation

Markus Gerber, Fortunat Joos (Bern/CH)

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Real-time transmission and processing of atmospheric CO₂ data activity in IMECC (Infrastructure for Measurement of the European Carbon Cycle) and GEOmon (Global Earth Observation and Monitoring) Projects

Jérôme Tarniewicz, Michel Ramonet (Gif-sur-Yvette/F), Bhuwan Bhatt (Bangalore/IN), László Haszpra (Budapest/HU), Juha Hatakka (Helsinki/FI), Claire Kaiser, Victor Kazan (Gif-sur-Yvette/F), John Moncrieff (Edinburgh/GB), Rolf Neubert (Groningen/NL), Josep Antón Morguí (Barcelona/ES), Euan Nisbet (Egham/GB), Nina Paramonova (St. Petersburg/RU), Alcide Giorgio Di Sarra (Roma/IT), Martina Schmidt (Gif-sur-Yvette/F), Thomas Seifert (Jena/DE), Alex Vermeulen (Jena/DE, Petten/NL)

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Using simulations to evaluate and improve CarbonTracker

Andrew R. Jacobson, Kenneth A. Masarie (Boulder/US), Wouter Peters (Wageningen/NL, Boulder/US), David F. Baker (Fort Collins/US), Arlyn E. Andrews, Colm Sweeney, Pieter P. Tans (Boulder/US)

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Reducing the uncertainty of North American carbon flux estimates using an extended atmospheric carbon dioxide measurement network

Martha Butler, Kenneth Davis (University Park/US), Scott Denning (Fort Collins/US), Randy Kawa (Greenbelt/US)

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Joint assimilation of meteorological and carbon data in a global carbon-climate model

Inez Fung (Berkeley/US), Eugenia Kalnay (College Park/US), Junjie Liu (Berkeley/US), Ji-Sun Kang (College Park/US)

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Steven Oncley, Karl Schwenz, Sean Burns, Russell Monson (Boulder/US)

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Evaluation of the Picarro G1301 analysers for continuous CO₂/CH₄ measurements and deployment at three Irish stations

Benoit Wastine (Gif sur Yvette/F)

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Analysis of Airborne Lidar measurements of Atmospheric CO₂ line shape and Column Absorption compared with in-situ measurements

Clark Weaver, Haris Riris, Graham Allan, Jianping Mao, James Abshire (Greenbelt/US), Sebastien Biraud (Berkeley/US)

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Preliminary comparisons of GOSAT and ground-based FTS total column CO₂ and CH₄ retrievals in the Southern Hemisphere

David Griffith (Wollongong/AU), Vanessa Sherlock (Wellington/NZ), Brian Connor (Alexandra/NZ), John Robinson (Lauder/NZ), Nicholas Deutscher (Wollongong/AU), Isamu Morino, Osamu Uchino (Tsukuba/JP)

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Surface CO₂ flux in weekly time resolution over the globe inferred from CONTRAIL data set

Shoichi Taguchi, Toshinobu Machida, Hidekazu Matsueda, Yousuke Sawa (Tsukuba/JP)

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Three-dimensional atmospheric CO₂ climatology built with combination of model ensemble simulation and observational data

Ryu Saito, Shamil Maksyutov, Dmitry Belikov (Tsukuba/JP), Ravi Lokupitiya (Fort Collins/US), Sander Houweling (Utrecht/NL), Yosuke Niwa (Kashiwa/JP), Prabir Patra (Yokohama/JP), N. Eguchi, T. Saeki (Tsukuba/JP)

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Andre Butz, Otto P. Hasekamp, Christian Frankenberg, Ilse Aben (Utrecht/NL)

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Ground-based FTIR measurements of XCO₂ at Izana, Tenerife and Karlsruhe, Germany

Frank Hase, Matthias Schneider, Thomas Blumenstock, Ieda Pscheidt (Eggenstein-Leopoldshafen/DE)

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New development of a multi-components IR analyzer with LED

Tsuboi Kazuhiro, Shohei Murayama, Hidekazu Matsueda, Yousuke Sawa, Hiroaki Kondo (Tsukuba/JP)

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Aircraft measurement of carbon dioxide for calibration of ground-based high-resolution Fourier Transform spectrometer at Tsukuba

Tomoaki Tanaka, Isamu Morino, Toshinobu Machida (Tsukuba/JP), Hiromi Kojima, Komei Yamaguchi, Taiko Kudo, Emi Ota, Hirofumi Oyama (Tokyo/JP), Hiroyuki Oguma, Osamu Uchino, Tatsuya Yokota (Tsukuba/JP)

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Real-time measurements of atmospheric CO₂ isotope ratios (13C, 18O) using a mid-IR QC laser

Yutaka Matsumi, Julie Pearce, Tomoki Nakayama, Ryuichi Wada (Nagoya/JP), Gen Inoue (Kyoto/JP), Tetsuya Hiyama (Nagoya/JP)

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CO₂ Column Concentrations in Bremen, Germany and Ny-Alesund, Spitzbergen

Ronald Macatangay (Wollongong/AU), Thorsten Warneke (Bremen/DE), Christoph Gerbig, Stefan Körner (Jena/DE), Sander Houweling (Utrecht/NL), Martin Heimann (Jena/DE), Justus Notholt (Bremen/DE), Otto Schrems (Bremerhaven/DE)

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Marc Geibel, Dietrich Feist (Jena/DE)

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Mirosław Zimnoch, Jarosław M. Necki, Kazimierz Rozanski, Jolanta Godłowska (Krakow/PL)

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Representativeness analysis of airborne and tall tower CO₂ measurements in Bialystok

Huilin Chen, Christoph Gerbig (Jena/DE), Krzysztof Katryński (Białystok/PL), Elena Popa (Petten/NL), Armin Jordan, Falk Haensel, Uwe Schultz (Jena/DE)

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Per Ambus, Merete Bang Selsted (Roskilde/DK), Anders Michelsen (Copenhagen/DK)

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Inter-annual Variability of Carbon fluxes from 2003 to 2006

Ravindra Lokupitiya, Dusanka Zupanski, Scott Denning, Nick Parazoo (Fort Collins/US), Randy Kawa (Greenbelt/US), Ian Baker, Milija Zupanski (Fort Collins/US)

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Inter-comparison of pCO₂ instruments - classical versus new methods

Tobias Steinhoff, Björn Fiedler, Peer Fietzek (Kiel/DE), Mario Hoppema (Bremerhaven/DE), Arne Körtzinger, Friedhelm Schröder (Kiel/DE), Henk Zemmelen (Texel/DK)

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Multi-chamber automatic soil respiration system for grasslands

János Balogh, Zoltán Nagy, Krisztina Pintér, Barnabás Balogh (Gödöllő/HU), Marian Pavelka, Eva Darenová (Brno/CZ), Zoltán Tuba (Gödöllő/HU)

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Column Average Estimates of CO₂, CH₄, and CO Mixing Ratios at ARM-SGP

Marc Fischer (Berkeley/US), Debra Wunch (Pasadena/US), Sebastien Biraud (Berkeley/US), Jean-Francois Blavier (Pasadena/US), Nathan Honsowetz (Berkeley/US), Gretchen Keppel-Aleks, Susan Kulawik, Charles Miller, Coleen Roehl (Pasadena/US), Vivienne Payne (Lexington/US), Colm Sweeney, James Smith (Boulder/US), Geoffrey Toon (Pasadena/US), Margaret Torn (Berkeley/US), Paul Wennberg (Pasadena/US)

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CO₂ Vertical Profiles from Simultaneous Retrievals of Near Infrared and Thermal Infrared Satellite Data

Charles Miller, Yuk Yung, Susan Kulawik, Kevin Bowman, Le Kuai, Vijay Natraj, Run-Lie Shia (Pasadena/US)

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Implications of the ecosystem steady state assumption for NEP estimates from site level to regional scales

Nuno Carvalhais (Caparica/PT, Jena/DE), Markus Reichstein (Jena/DE), G. James Collatz (Maryland/US), Miguel Mahecha (Jena/DE), Mirco Migliavacca (Milano/IT), Christopher Neigh (Maryland/US), Júlia Seixas (Caparica/PT), Enrico Tomelleri (Jena/DE)

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Carbon Cycle Data Assimilation in the GOSAT Era: An Observing System Simulation

Scott Denning, Ravindra Lokupitiya, Dusanka Zupanski, Nick Parazoo, David Baker, Scott Doney, Ian Baker, Randall Kawa, James Collatz, Steven Pawson, Kevin Gurney (Fort Collins/US)

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The T Torch ESF Research Networking Programme

Alex Vermeulen, Elena Popa (Petten/NL)

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The development of a new high precision GHG observation network in the Australian region

Marcel van der Schoot (Aspendale/AU)

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Characterization of model-data mismatch of CO₂ concentrations due to misrepresentation of mixing layer height in high resolution WRF-VPRM simulations

Roberto Kretschmer, Christoph Gerbig (Jena/DE), Ravan Ahmadov (Boulder/US), Dhanya K. Pillai, Huilin Chen, Ute Karstens (Jena/DE)

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Development of a global reanalysis of oceanic pCO₂

Steve Jones (Norwich/GB), C. Le Quéré, A.C. Manning (Norwich/UK), C. Rödenbeck (Jena/DE)

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Aircraft-Based Measurements of the Carbon Footprint of Indianapolis

Paul Shepson, Kelly Ross (West Lafayette/US), Colm Sweeney (West Lafayette,

Boulder/US), Anna Karion (Boulder/US), Brian Stirm (West Lafayette,Boulder/US), Kevin Gurney (West Lafayette/US)

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Diagnosing CO₂ inter-annual variability off the east coast of Australia from hydrographic measurements

Ben McNeil (Sydney/AU)

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Global atmospheric carbon dioxide from SCIAMACHY on ENVISAT

Michael Buchwitz, Oliver Schneising, Maximilian Reuter, Heinrich Bovensmann, John P. Burrows (Bremen/DE)

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Dynamic Topography Determination of the Western Mediterranean Sea from Jason-1 Data

Ali Rami (Oran/DZ)

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VERTICAL CO₂-FLUX GRADIENTS IN THE MARINE BOUNDARY LAYER-FIRST RESULTS FROM FINO2

Michael Krupski, Gerhard Peters, Hans Münster (Hamburg/DE)

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Georgii Alexandrov, Tsuneo Matsunaga (Tsukuba/JP)

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2-Micron Laser Transmitter for Coherent CO₂ DIAL Measurement

Upendra Singh, Yingxin Bai, Jirong Yu (Hampton/US)

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Characterization of Atmospheric Measurement Requirements for Validation of CO₂ emission Inventories

Aaron Swanson, Lance Newhart, Gary Segal, Bhaswar Sen (Redondo Beach//US)

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A preliminary validation of GOSAT XCO₂ and XCH₄ distributions using the GEOS-Chem transport model

Paul Palmer, Liang Feng, Anthony Bloom, Annemarie Fraser (Edinburgh/GB), Hartmut Boesch (Leicester/GB), Tatsuya Yokota, Shamil Maksyutov (Tsukuba/JP)

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XCO₂ retrievals from GOSAT observations: Comparing results from different retrieval approaches

Hartmut Boesch, Austin Cogan, Robert Parker, Paul Monks (Leicester/GB), Tatsuya Yokota, Shamil Maksyutov (Tsukuba/JP), David Crisp, Charles Miller (Pasadena/US)

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Turbulent CO₂ flux measurements by lidar: from the micro to the regional scale

Fabien Gibert (Palaiseau/F), Grady Koch (Hampton/US), Jeffrey Beyon (Hampton/US),

Timothy Hilton, Kenneth Davis (State College/US), Arlyn Andrews (Boulder/US), Syed Ismail, Upendra Singh (Hampton/US)

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Towards an Integrated Global Carbon Observing System

Roger Dargaville (Parkville/AU)

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Development of balloon-borne CO₂ instruments

Yutaka Matsumi, Tomoki Nakayama (Nagoya/JP), Masahiro Kawasaki, Gen Inoue (Kyoto/JP), Shoichi Uematsu (Susono/JP), Kensaku Shimizu (Isezaki/JP)

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Modelling Net Primary Productivity at regional scale in West Africa using 250 m MODIS data and different climate data - a comparison

Miriam Machwitz (Würzburg/DE), Raymond Kasei, Ulrike Falk (Bonn/DE), Jochen Richters (Berlin/DE), Christopher Conrad, Stefan Dech (Würzburg/DE)

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Review and future of CO₂ DiAL/IPDA activities at IPSL and ESA to study biosphere-atmosphere processes and climate change issue

Pierre Flamant, Fabien Gibert, Dimitri Édouart, Juan E. Cuesta, Fabien Marnas (Palaiseau/F), Didier Bruneau (Verrières-le-Buisson)

T4-076

Integrated Path Differential Absorption Lidar: A new Perspective for Global Observations of Atmospheric Carbon Dioxide with Unprecedented Accuracy

Gerhard Ehret, Axel Amediek, Christoph Kiemle, Martin Wirth, Andreas Fix (Wessling/DE)

T4-077

Constraining the Uncertainty of Carbon Dynamics in North America Using Eddy Flux Measurements and Satellite-Based Net Primary Production Data

Qianlai Zhuang, Jinyun Tang (West Lafayette/US), Jerry Melillo (Woods Hole/US), Min Chen, Yueyang Jiang, Xiaoliang Lu (West Lafayette/US), David Kicklighter (Woods Hole/US), Ronald Prinn (Cambridge/US), A. David McGuire (Fairbanks/US)

T4-078

Inverse modeling of the regional CO₂ fluxes with a coupled Eulerian-Lagrangian global tracer transport model and fixed-lag Kalman smoother

Yuji Koyama, Vinu Valsala, Makoto Saito, Hitoshi Mukai, Shamil Maksyutov (Tsukuba/JP)

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Comparison analysis of CO₂ simulation between NIES Transport Model and GEOS-5 for GOSAT CO₂ retrieval

Nawo Eguchi (Tsukuba/JP), Lesley Ott (Greenbelt/US), Ryu Saito (Tsukuba/JP), Zhengxin Zhu (Greenbelt/US), Tatsuya Yokota (Tsukuba/JP), Steven Pawson (Greenbelt/US), Shamil Maksyutov (Tsukuba/JP)

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Supporting the improvement of the carbon observing system by quantitative network design

Thomas Kaminski (Hamburg/DE), Peter J. Rayner (Gif sur Yvette/F), Marko Scholze (Bristol/GB), Michael Voßbeck (Hamburg/DE), Ernest Koffi (Hamburg/DE, Gif sur Yvette/F), Ralf Giering (Hamburg/DE), Sander Houweling (Utrecht/NL)

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Development of a 1.6 μm Differential Absorption Lidar for Measurement of the Vertical CO₂ Profiles in the Atmosphere

Chikao Nagasawa, Makoto Abo, Yasukuni Shibata (Tokyo/JP), Tomohiro Nagai, Masahisa Nakazato, Tetsu Sakai (Ibaraki/JP), Makoto Tsukamoto (Tokyo/JP), Daisuke Sakaizawa (Ibaraki/JP)

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General scheme of modelling of soil organic matter dynamics in mineral and organic soils: the ROMUL model expansion

Alexander Komarov (Pushchino/RU), Oleg Chertov (Bingen/DE)

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Regionalisation of the key carbon storage parameter within the Carbon Cycle Data Assimilation System (CCDAS)

Tilo Ziehn, Marko Scholze, Wolfgang Knorr (Bristol/GB)

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Carbonyl Sulfide, a new tracer of ecosystem carbon and water exchange

Ulrike Seibt (Paris/F), Jürgen Kesselmeier (Mainz/DE), Joe Berry (Stanford/US)

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Inverse modeling of global and regional CH₄ emissions using recently revised SCIAMACHY satellite retrievals

Peter Bergamaschi (Ispra/IT), Christian Frankenberg (Utrecht/NL), Jan Fokke Meirink (De Bilt/NL), Maarten Krol (Utrecht,Wageningen/NL), Maria Gabriella Villani (Ispra/IT), Sander Houweling (Utrecht/NL), Frank Dentener (Ispra/IT), Edward J. Dlugokencky (Boulder/US), John B. Miller (Boulder/US), Luciana Gatti (Sao Paulo/BR), Andreas Engel (Frankfurt/DE), Ingeborg Levin (Heidelberg/DE)

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Side by Side measurements of Greenhouse Gases by Ground-based Fourier Transform Infrared (FTIR) Spectrometry

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

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A capricious terrestrial carbon cycle – global monthly CO₂ flux inversion of the recent years

Feng Deng, Jing Chen (Toronto/CA), Wouter Peters (Wageningen/NL), Gang Mo (Toronto/CA), Maarten Krol Krol (Wageningen/NL)

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DATA-DRIVEN ESTIMATION OF TERRESTRIAL GROSS PRIMARY PRODUCTIVITY AT GLOBAL SCALE, ITS SPATIAL DETAILS, AND ITS UNCERTAINTIES

Christian Beer, Enrico Tomelleri, Markus Reichstein, Martin Jung (Jena/DE), Dario Papale (Viterbo/IT), Philippe Ciais, Philippe Peylin (Paris), Sebastiaan Luyssaert (Antwerp/NL), John Grace (Edinburgh/GB), Pete Smith, Martin Wattenbach (Aberdeen/GB)

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Dynamical Prediction of Terrestrial Ecosystems and the Global Carbon Cycle: a 25-year Hindcast Experiment

Ning Zeng, Jinho Yoon (College Park/US), Augustin Vintzileos (Camp Springs/US), G. James Collatz (Greenbelt/US), Eugenia Kalnay, Annarita Mariotti (College Park/US), Arun Kumar (Camp Springs/US), Antonio Busalacchi (College Park/US), Stephen Lord (Camp Springs/US)

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Fossil fuel emission modelling: approach and results for Europe

Balendra Thiruchittampalam (Stuttgart/DE)

T4-093

Quantifying carbon processes of the terrestrial biosphere in a global atmospheric inversion based on atmospheric mixing ratio, remote sensing and meteorological data

Bakr Badawy, Christian Rödenbeck, Markus Reichstein, Nuno Carvalhais, Martin Jung, Martin Heimann (Jena/DE)

T4-094

Using Tropospheric Emission Spectrometer (TES) CO₂ observations to improve inverse modeling estimates of carbon fluxes

Ray Nassar, Dylan B.A. Jones (Toronto/CA), Susan S. Kulawik (Pasadena/US), Jing M. Chen (Toronto/CA), Robert J. Andres (Oak Ridge/US), Parvatha Suntharalingam (Norwich/GB)

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Simulation and synthesis of a global air-sea CO₂ flux using ship observations of surface ocean pCO₂ in a simplified biogeochemical OGCM.

Vinu Valsala, Shamil Maksyutov (Tsukuba/JP)

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Exploration of inverse-estimated fluxes constrained by observed CO₂ vertical profiles: a return of a large northern land sink and large tropical source?

Kevin Gurney, Warren Eckels (West Lafayette/US)

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Forward and inverse modelling algorithms for regional CO₂ flux estimation with GOSAT observations

Shamil Maksyutov, Yuji Koyama, Vinu Valsala, Tomohiro Oda, Dmitry Belikov, Makoto Saito, Akihiko Ito (Tsukuba/JP), Prabir K. Patra (Yokohama/JP)

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Continuous and high precision Greenhouse Gas Observations onboard Commercial Airliner within IAGOS-ERI

Christoph Gerbig, Huilin Chen, Annette Höfer, Jan Winderlich, Julia Steinbach (Jena/DE), Steven C. Wofsy, Elaine W. Gottlieb, Bruce C. Daube (Cambridge/US)

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Estimation of CO₂ Surface Fluxes from Satellite Data

Richard Engelen (Reading/GB), Frederic Chevallier (Gif sur Yvette/F), Soumia Serrar (Reading/GB)

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Fifteen years of high-resolution fossil fuel emissions from nationalemissions and nightlights data

Peter Rayner (Gif sur Yvette/F), Michael Raupach, Matthew Paget (Canberra/AU), Philippe Peylin, Ernest Koffi (Gif sur Yvette/F), Kevin Gurney (Lafayette/US), Philippe Ciais (Gif sur Yvette/F)

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Sensitivity of Climate Data Assimilation System to Transport models and Observational networks

Ernest Koffi, Peter Rayner (Gif sur Yvette/F), Marko Scholze (Bristol/GB), Thomas Kaminski (Hamburg/DE), Frederic Chevallier (Gif sur Yvette/F), Christian Rödenbeck (Jena/DE), Michael Voßbeck, Ralf Giering (Hamburg/DE), Wolfgang Knorr (Bristol/GB), Martin Heimann (Jena/DE)

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New oceanic constraints on the seasonal sources and sinks of the terrestrial biosphere

Kay Steinkamp, Nicolas Gruber (Zurich/CH)

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Modelling of CO₂ mixing ratios for the cabauw tall tower, the netherlands

Lieselotte Tolk (Amsterdam), Wouter Peters (Wageningen/NL), Antoon Meesters, Margriet Groenendijk (Amsterdam/NL), Alex Vermeulen (Petten/NL), Gert-Jan Steeneveld (Wageningen/NL), Han Dolman (Amsterdam/NL)

T4-104

Carbon Cycle Modeling Applied to Evaluation of Future Satellite CO₂ Mission Concepts

Randy Kawa, Jim Collatz, Jianping Mao, Jim Abshire, Xiaoli Sun, Clark Weaver (Greenbelt/US), Scott Denning (Fort Collins/US)

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The seasonal behaviour of carbon fluxes in the Amazon: fusion of FLUXNET data and the ORCHIDEE model

Hans Verbeeck (Ghent/BE), Philippe Peylin, Cédric Bacour, Philippe Ciais (Gif sur Yvette/F)

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Evaluation and application of low-cost, medium-high-accuracy CO₂ measurements on western-European flux towers

Bart Kruijt, Jan Elbers (Wageningen/NL), Thomas Grünwald (Tharandt/DE), Denis Loustau (Bordeaux/F), Arnaud Carrara (Valencia/ES), Alex Vermeulen (Petten/NL), Tuula Aalto (Helsinki/FI)

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Mid-tropospheric Measurements of Global CO₂ with the Atmospheric Infrared Sounder (AIRS)

Breno Imbiriba, Larrabee Strow, Scott Hannon, Sergio de Souza-Machado (Baltimore/US)

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Regional-scale correlation between CO₂ fire emissions, burned areas, and mid-tropospheric CO₂ daily variations over southern Africa

Cyril Crevoisier, Alain Chédin, Noëlle A. Scott (Palaiseau/F), Ciais Philippe (Scalay/F), Armante Raymond (Palaiseau/F)

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Feasibility of CO₂ profile retrieval from limb viewing solar occultation made by the ACE-FTS instrument

Pierre-Yves Foucher, Alain Chédin (Palaiseau/F), Gaëlle Dufour (Créteil/F), Virginie Capelle (Palaiseau/F), C. D. Boone (Waterloo/CA), Peter Bernath (Waterloo, York/CA)

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Carbon fluxes in North America: A new perspective from three-dimensional CO₂ sampling

Cyril Crevoisier (Palaiseau/F), Colm Sweeney (Boulder/US), Manuel Gloor (Leeds/GB), Jorge L. Sarmiento (Princeton/US), Pieter P. Tans (Boulder/US)

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How beneficial are total column CO₂ measurements compared to in-situ measurements from a ground based network in the current inverse modeling world?

Dietrich Feist, Roberto Kretschmer, Marc Geibel, Christoph Gerbig, Julia Marshall (Jena/DE)

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Evaluation of Transport Characteristics of GEOS-5 Using Chemistry Transport Model Simulations of Atmospheric CO₂

Nicholas Parazoo, Scott Denning (Fort Collins/US), Randy Kawa, Steven Pawson (Greenbelt/US), Ian Baker (Fort Collins/US)

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A Forest Refuge pinpointed to the Ground: Les monts Birougou au Gabon

Stephan Alexander Pietsch (Vienna/AT), Jean-Jaques Tanga, Ludovic Ngok-Banak (Libreville/GA)

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The GOSAT (Greenhouse gases Observing SATellite) Project and the current status of routine data processing for global CO₂ and CH₄ retrieval

Tatsuya Yokota, Hiroshi Watanabe, Osamu Uchino, Isamu Morino, Yukio Yoshida, Shamil Maksyutov (Tsukuba/JP)

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Long-Term Global Monitoring of Atmospheric CO₂ from Space

David Crisp (Pasadena/US)

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A Mid-IR, Wavelength-Scanned, Cavity Ring-Down Spectrometer for Continuous Trace N₂O and Nitrogen Isotope Measurements

Aaron Van Pelt (Sunnyvale/US), David Balslev-Clausen (Copenhagen/DK), Alejandro Farinas, Eric Crosson (Sunnyvale/US),

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Pole to pole measurements of CO₂ and related tracers with a novel QC-laser spectrometer

Rodrigo Jimenez (Cambridge/US), Bruce C. Daube, Eric A. Kort, Sunyoung Park, Elaine Gottlieb, Steven C. Wofsy (Cambridge/US), J. Barry McManus, David D. Nelson, Mark S. Zahniser (Billerica/US)

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Turbulent mixing of atmospheric CO₂: high-resolution simulations and implications for daytime and nighttime budget studies

Ravan Ahmadov (Boulder/US), Christoph Gerbig, Roberto Kretschmer, Dhanya K. Pillai, Christian Rödenbeck, Thomas Koch (Jena/DE), Michel Ramonet (Paris/F), Bruno Neininger (CH), Stuart McKeen (Boulder/US)

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ICOS - Integrated Carbon Observation System

Leonard Rivier (Gif-Sur-Yvette/F)