Table OF CONTENTS

[2019 2](#_Toc3757888)

[2018 3](#_Toc3757889)

[2017 12](#_Toc3757890)

[2016 21](#_Toc3757891)

[2015 26](#_Toc3757892)

[2014 34](#_Toc3757893)

[2013 39](#_Toc3757894)

[2012 44](#_Toc3757895)

[2011 46](#_Toc3757896)

[2010 47](#_Toc3757897)

# 2019

Agustí-Panareda, Anna, Michail Diamantakis, Sébastien Massart, Frédéric Chevallier, Joaquín Muñoz-Sabater, Jérôme Barré, Roger Curcoll, et al. 2019. “Modelling CO2 Weather - Why Horizontal Resolution Matters.” Atmospheric Chemistry and Physics Discussions, February, 1–48. doi:10.5194/acp-2019-177.

Dumortier, Pierre, Marc Aubinet, Frédéric Lebeau, Alwin Naiken, and Bernard Heinesch. 2019. “Point Source Emission Estimation Using Eddy Covariance: Validation Using an Artificial Source Experiment.” Agricultural and Forest Meteorology 266–267. Elsevier BV: 148–56. doi:10.1016/j.agrformet.2018.12.012.

Fröb, F., A. Olsen, M. Becker, L. Chafik, T. Johannessen, G. Reverdin, and A. Omar. 2019. “Wintertime FCO2 Variability in the Subpolar North Atlantic Since 2004.” Geophysical Research Letters 46 (3): 1580–90. doi:10.1029/2018GL080554.

Keenan, Trevor F., Mirco Migliavacca, Dario Papale, Dennis Baldocchi, Markus Reichstein, Margaret Torn, and Thomas Wutzler. 2019. “Widespread Inhibition of Daytime Ecosystem Respiration.” Nature Ecology & Evolution, February. doi:10.1038/s41559-019-0809-2.

Klosterhalfen, A, A F Moene, M Schmidt, T M Scanlon, H Vereecken, and A Graf. 2019. “Sensitivity Analysis of a Source Partitioning Method for H2O and CO2 Fluxes Based on High Frequency Eddy Covariance Data: Findings from Field Data and Large Eddy Simulations.” Agricultural and Forest Meteorology 265 (February). Elsevier BV: 152–70. doi:10.1016/j.agrformet.2018.11.003.

Martinez, Miguel A, Ben J Woodcroft, Julio C Ignacio Espinoza, Ahmed A Zayed, Caitlin M Singleton, Joel A Boyd, Yueh-Fen Li, et al. 2019. “Discovery and Ecogenomic Context of a Global Caldiserica-Related Phylum Active in Thawing Permafrost, Candidatus Cryosericota Phylum Nov., Ca. Cryosericia Class Nov., Ca. Cryosericales Ord. Nov., Ca. Cryosericaceae Fam. Nov., Comprising the Four Species C.” Systematic and Applied Microbiology 42 (1). Elsevier BV: 54–66. doi:10.1016/j.syapm.2018.12.003.

Nilsson, Erik, Anna Rutgersson, Adam Dingwell, Jan-Victor Björkqvist, Heidi Pettersson, Lars Axell, Johan Nyberg, and Erland Strömstedt. 2019. “Characterization of Wave Energy Potential for the Baltic Sea with Focus on the Swedish Exclusive Economic Zone.” Energies 12 (5). MDPI AG: 793. doi:10.3390/en12050793.

Riihimäki, Henri, Miska Luoto, and Janne Heiskanen. 2019. “Estimating Fractional Cover of Tundra Vegetation at Multiple Scales Using Unmanned Aerial Systems and Optical Satellite Data.” Remote Sensing of Environment 224 (April): 119–32. doi:10.1016/j.rse.2019.01.030.

# 2018

Achat, David L, Simon Martel, Delphine Picart, Christophe Moisy, Laurent Augusto, Mark R Bakker, and Denis Loustau. 2018. “Modelling the Nutrient Cost of Biomass Harvesting under Different Silvicultural and Climate Scenarios in Production Forests.” Forest Ecology and Management 429 (December). Elsevier BV: 642–53. doi:10.1016/j.foreco.2018.06.047.

Acosta, Manuel, Eva Darenova, Lenka Krupková, and Marian Pavelka. 2018. “Seasonal and Inter-Annual Variability of Soil CO2 Efflux in a Norway Spruce Forest over an Eight-Year Study.” Agricultural and Forest Meteorology 256–257 (June). Elsevier BV: 93–103. doi:10.1016/j.agrformet.2018.03.005.

Aguilos, Maricar, Bruno Hérault, Benoit Burban, Fabien Wagner, and Damien Bonal. 2018. “What Drives Long-Term Variations in Carbon Flux and Balance in a Tropical Rainforest in French Guiana?” Agricultural and Forest Meteorology 253–254. Elsevier BV: 114–23. doi:10.1016/j.agrformet.2018.02.009.

Al-Yaari, A, S Dayau, C Chipeaux, C Aluome, A Kruszewski, D Loustau, and J.-P. Wigneron. 2018. “The AQUI Soil Moisture Network for Satellite Microwave Remote Sensing Validation in South-Western France.” Remote Sensing 10 (11). MDPI AG: 1839. doi:10.3390/rs10111839.

Andersen, Truls, Bert Scheeren, Wouter Peters, and Huilin Chen. 2018. “A UAV-Based Active AirCore System for Measurements of Greenhouse Gases.” Atmospheric Measurement Techniques 11 (5). Copernicus GmbH: 2683–99. doi:10.5194/amt-11-2683-2018.

Arrouays, Dominique, Nicolas P.A. Saby, Hakima Boukir, Claudy Jolivet, Céline Ratié, Marion Schrumpf, Lutz Merbold, et al. 2018. “Soil Sampling and Preparation for Monitoring Soil Carbon.” International Agrophysics 32 (4): 633–43. doi:10.1515/intag-2017-0047.

Arzoumanian, Emmanuel, Felix R Vogel, Ana Bastos, Bakhram Gaynullin, Olivier Laurent, Michel Ramonet, and Philippe Ciais. 2018. “Characterization of Lower-Cost Medium Precision Atmospheric CO2 Monitoring Systems for Urban Areas Using Commercial NDIR Sensors.” Atmospheric Measurement Techniques Discussions. Copernicus GmbH, 1–22. doi:10.5194/amt-2018-329.

Assan, Sabina, F R Vogel, V Gros, A Baudic, J Staufer, and P Ciais. 2018. “Can We Separate Industrial CH4 Emission Sources from Atmospheric Observations? - A Test Case for Carbon Isotopes, PMF and Enhanced APCA.” Atmospheric Environment 187 (August). Elsevier BV: 317–27. doi:10.1016/j.atmosenv.2018.05.004.

Aubinet, Marc, Quentin Hurdebise, Henri Chopin, Alain Debacq, Anne De Ligne, Bernard Heinesch, Tanguy Manise, and Caroline Vincke. 2018. “Inter-Annual Variability of Net Ecosystem Productivity for a Temperate Mixed Forest: A Predominance of Carry-over Effects?” Agricultural and Forest Meteorology 262. doi:10.1016/j.agrformet.2018.07.024.

Bachy, A., M. Aubinet, C. Amelynck, N. Schoon, B. Bodson, C. Moureaux, P. Delaplace, A. De Ligne, and B. Heinesch. 2018. “Methanol Exchange Dynamics between a Temperate Cropland Soil and the Atmosphere.” Atmospheric Environment 176 (March): 229–39. doi:10.1016/j.atmosenv.2017.12.016.

Balsamo, Gianpaolo, Anna Agust\`\i-Parareda, Clément Albergel, Gabriele Arduini, Anton Beljaars, Jean Bidlot, Nicolas Bousserez, et al. 2018. “Satellite and In Situ Observations for Advancing Global Earth Surface Modelling: A Review.” Remote Sensing 10 (12). MDPI AG: 2038. doi:10.3390/rs10122038.

Barba, Josep, Alejandro Cueva, Michael Bahn, Greg A. Barron-Gafford, Benjamin Bond-Lamberty, Paul J. Hanson, Aline Jaimes, et al. 2018. “Comparing Ecosystem and Soil Respiration: Review and Key Challenges of Tower-Based and Soil Measurements.” Agricultural and Forest Meteorology 249. doi:10.1016/j.agrformet.2017.10.028.

Barskov, K V, A V Glazunov, I A Repina, V M Stepanenko, V N Lykossov, and I Mammarella. 2018. “On the Applicability of Similarity Theory for the Stable Atmospheric Boundary Layer over Complex Terrain.” Izvestiya, Atmospheric and Oceanic Physics 54 (5). Pleiades Publishing Ltd: 462–71. doi:10.1134/s0001433818050031.

Bastos, Ana, Anna Peregon, Érico A Gani, Sergey Khudyaev, Chao Yue, Wei Li, Célia M Gouveia, and Philippe Ciais. 2018. “Influence of High-Latitude Warming and Land-Use Changes in the Early 20th Century Northern Eurasian CO2 Sink.” Environmental Research Letters 13 (6). IOP Publishing: 65014. doi:10.1088/1748-9326/aac4d3.

Basu, Sourish, David F Baker, Frédéric Chevallier, Prabir K Patra, Junjie Liu, and John B Miller. 2018. “The Impact of Transport Model Differences on CO2 Surface Flux Estimates from OCO-2 Retrievals of Column Average CO2.” Atmospheric Chemistry and Physics 18 (10). Copernicus GmbH: 7189–7215. doi:10.5194/acp-18-7189-2018.

Bergamaschi, P., A. Danila, R. F. Weiss, P. Ciais, R. L. Thompson, D. Brunner, I. Levin, Y. Meijer, F. Chevallier, G. Janssens-Maenhout, H. Bovensmann, D. Crisp, S. Basu, E. Dlugokencky, R. Engelen, C. Gerbig, D. Günther, S. Hammer, S. Henne, S. Houweling, F. Vogel. 2018. “Atmospheric Monitoring and Inverse Modelling for Verification of Greenhouse Gas Inventories.” Luxembourg. doi:10.2760/759928.

Bergamaschi, Peter, Ute Karstens, Alistair J. Manning, Marielle Saunois, Aki Tsuruta, Antoine Berchet, Alexander T. Vermeulen, et al. 2018. “Inverse Modelling of European CH4 Emissions during 2006–2012 Using Different Inverse Models and Reassessed Atmospheric Observations.” Atmospheric Chemistry and Physics 18 (2): 901–20. doi:10.5194/acp-18-901-2018.

Bergamaschi, Peter, Ute Karstens, Alistair J Manning, Marielle Saunois, Aki Tsuruta, Antoine Berchet, Alexander T Vermeulen, et al. 2018. “Inverse Modelling of European CH4 Emissions during 2006\textendash2012 Using Different Inverse Models and Reassessed Atmospheric Observations.” Atmospheric Chemistry and Physics 18 (2). Copernicus GmbH: 901–20. doi:10.5194/acp-18-901-2018.

Besnard, Simon, Nuno Carvalhais, M Altaf Arain, Andrew Black, Sytze de Bruin, Nina Buchmann, Alessandro Cescatti, et al. 2018. “Quantifying the Effect of Forest Age in Annual Net Forest Carbon Balance.” Environmental Research Letters 13 (12). IOP Publishing: 124018. doi:10.1088/1748-9326/aaeaeb.

Bogena, H R, C Montzka, J A Huisman, A Graf, M Schmidt, M Stockinger, C von Hebel, et al. 2018. “The TERENO-Rur Hydrological Observatory: A Multiscale Multi-Compartment Research Platform for the Advancement of Hydrological Science.” Vadose Zone Journal 17 (1). Soil Science Society of America: 0. doi:10.2136/vzj2018.03.0055.

Campeau, A., K. Bishop, M. B. Nilsson, L. Klemedtsson, H. Laudon, F. I. Leith, M. Öquist, and M. B. Wallin. 2018. “Stable Carbon Isotopes Reveal Soil-Stream DIC Linkages in Contrasting Headwater Catchments.” Journal of Geophysical Research: Biogeosciences 123 (1): 149–67. doi:10.1002/2017JG004083.

Carrara, Arnaud, Pasi Kolari, Maarten Op de Beeck, Nicola Arriga, Daniel Berveiller, Sigrid Dengel, Andreas Ibrom, et al. 2018. “Radiation Measurements at ICOS Ecosystem Stations.” International Agrophysics 32 (4): 589–605. doi:10.1515/intag-2017-0049.

Collalti, Alessio, Carlo Trotta, Trevor F Keenan, Andreas Ibrom, Ben Bond-Lamberty, Ruediger Grote, Sara Vicca, et al. 2018. “Thinning Can Reduce Losses in Carbon Use Efficiency and Carbon Stocks in Managed Forests Under Warmer Climate.” Journal of Advances in Modeling Earth Systems 10 (10). American Geophysical Union (AGU): 2427–52. doi:10.1029/2018ms001275.

Colomb, Aurélie, Sebastien Conil, Marc Delmotte, Michal Heliasz, Ove Hermannsen, Jutta Holst, Petri Keronen, et al. 2018. “ICOS Atmospheric Greenhouse Gas Mole Fractions of CO2, CH4, CO, 14CO2 and Meteorological Observations 2016-2018, Final Quality Controlled Level 2 Data.” ICOS ERIC. doi:10.18160/rhkc-vp22.

Conen, Franz, Nicolas Bukowiecki, Martin Gysel, Martin Steinbacher, Andrea Fischer, and Stefan Reimann. 2018. “Low Number Concentration of Ice Nucleating Particles in an Aged Smoke Plume.” Quarterly Journal of the Royal Meteorological Society 144 (715). Wiley: 1991–94. doi:10.1002/qj.3312.

Darenova, Eva, Manuel Acosta, Radek Pokorny, and Marian Pavelka. 2018. “Variability in Temperature Dependence of Stem CO2 Efflux from Norway Spruce Trees.” Edited by Michael Ryan. Tree Physiology 38 (9). Oxford University Press (OUP): 1333–44. doi:10.1093/treephys/tpy006.

de Beeck, Maarten Op, Bert Gielen, Lutz Merbold, Edward Ayres, Penelope Serrano-Ortiz, Manuel Acosta, Marian Pavelka, et al. 2018. “Soil-Meteorological Measurements at ICOS Monitoring Stations in Terrestrial Ecosystems.” International Agrophysics 32 (4): 619–31. doi:10.1515/intag-2017-0041.

de la Motte, Louis Gourlez, Ossénatou Mamadou, Yves Beckers, Bernard Bodson, Bernard Heinesch, and Marc Aubinet. 2018. “Rotational and Continuous Grazing Does Not Affect the Total Net Ecosystem Exchange of a Pasture Grazed by Cattle but Modifies CO2 Exchange Dynamics.” Agriculture, Ecosystems & Environment 253 (February). Elsevier BV: 157–65. doi:10.1016/j.agee.2017.11.011.

Denfeld, B A, M Klaus, H Laudon, R A Sponseller, and J Karlsson. 2018. “Carbon Dioxide and Methane Dynamics in a Small Boreal Lake During Winter and Spring Melt Events.” Journal of Geophysical Research: Biogeosciences 123 (8). American Geophysical Union (AGU): 2527–40. doi:10.1029/2018jg004622.

Dengel, Sigrid, Alexander Graf, Thomas Grünwald, Markus Hehn, Pasi Kolari, Mikaell Ottosson Löfvenius, Lutz Merbold, Giacomo Nicolini, and Marian Pavelka. 2018. “Standardized Precipitation Measurements within ICOS: Rain, Snowfall and Snow Depth: A Review.” International Agrophysics 32 (4): 607–17. doi:10.1515/intag-2017-0046.

Dengel, Sigrid, Alexander Graf, Thomas Grünwald, Markus Hehn, Pasi Kolari, Mikaell Ottosson Löfvenius, Lutz Merbold, Giacomo Nicolini, and Marian Pavelka. 2018. “Standardized Precipitation Measurements within ICOS: Rain, Snowfall and Snow Depth: A Review.” International Agrophysics 32 (4): 607–17. doi:10.1515/intag-2017-0046.

Digrado, Anthony, Louis G. de la Motte, Aurélie Bachy, Ahsan Mozaffar, Niels Schoon, Filippo Bussotti, Crist Amelynck, et al. 2018. “Decrease in the Photosynthetic Performance of Temperate Grassland Species Does Not Lead to a Decline in the Gross Primary Production of the Ecosystem.” Frontiers in Plant Science 9 (February). doi:10.3389/fpls.2018.00067.

Ducker, Jason A, Christopher D Holmes, Trevor F Keenan, Silvano Fares, Allen H Goldstein, Ivan Mammarella, J William Munger, and Jordan Schnell. 2018. “Synthetic Ozone Deposition and Stomatal Uptake at Flux Tower Sites.” Biogeosciences 15 (17). Copernicus GmbH: 5395–5413. doi:10.5194/bg-15-5395-2018.

Ehrhardt, Fiona, Jean-François Soussana, Gianni Bellocchi, Peter Grace, Russel McAuliffe, Sylvie Recous, Renáta Sándor, et al. 2018. “Assessing Uncertainties in Crop and Pasture Ensemble Model Simulations of Productivity and N2O Emissions.” Global Change Biology 24 (2): e603–16. doi:10.1111/gcb.13965.

Emerson, Joanne B, Simon Roux, Jennifer R Brum, Benjamin Bolduc, Ben J Woodcroft, Ho Bin Jang, Caitlin M Singleton, et al. 2018. “Host-Linked Soil Viral Ecology along a Permafrost Thaw Gradient.” Nature Microbiology 3 (8). Springer Nature: 870–80. doi:10.1038/s41564-018-0190-y.

Erkkilä, Kukka-Maaria, Anne Ojala, David Bastviken, Tobias Biermann, Jouni J. Heiskanen, Anders Lindroth, Olli Peltola, Miitta Rantakari, Timo Vesala, and Ivan Mammarella. 2018. “Methane and Carbon Dioxide Fluxes over a Lake: Comparison between Eddy Covariance, Floating Chambers and Boundary Layer Method.” Biogeosciences 15 (2): 429–45. doi:10.5194/bg-15-429-2018.

Faiola, C L, A Buchholz, E Kari, P Yli-Pirilä, J K Holopainen, M Kivimäenpää, P Miettinen, et al. 2018. “Terpene Composition Complexity Controls Secondary Organic Aerosol Yields from Scots Pine Volatile Emissions.” Scientific Reports 8 (1). Springer Nature. doi:10.1038/s41598-018-21045-1.

Fischer, Milan, Terenzio Zenone, Miroslav Trnka, Matěj Orság, Leonardo Montagnani, Eric J. Ward, Abhishek Mani Tripathi, et al. 2018. “Water Requirements of Short Rotation Poplar Coppice: Experimental and Modelling Analyses across Europe.” Agricultural and Forest Meteorology 250–251 (March): 343–60. doi:10.1016/j.agrformet.2017.12.079.

Franz, Daniela, Manuel Acosta, Núria Altimir, Nicola Arriga, Dominique Arrouays, Marc Aubinet, Mika Aurela, et al. 2018. “Towards Long-Term Standardised Carbon and Greenhouse Gas Observations for Monitoring Europe’s Terrestrial Ecosystems: A Review.” International Agrophysics 32 (4): 439–55. doi:10.1515/intag-2017-0039.

Fratini, Gerardo, Simone Sabbatini, Kevin Ediger, Brad Riensche, George Burba, Giacomo Nicolini, Domenico Vitale, and Dario Papale. 2018. “Eddy Covariance Flux Errors Due to Random and Systematic Timing Errors during Data Acquisition.” Biogeosciences 15 (17). Copernicus GmbH: 5473–87. doi:10.5194/bg-15-5473-2018.

García, Omaira E, Matthias Schneider, Benjamin Ertl, Eliezer Sepúlveda, Christian Borger, Christopher Diekmann, Andreas Wiegele, et al. 2018. “The MUSICA IASI CH4 and N2O Products and Their Comparison to HIPPO, GAW and NDACC FTIR References.” Atmospheric Measurement Techniques 11 (7). Copernicus GmbH: 4171–4215. doi:10.5194/amt-11-4171-2018.

Gielen, Bert, Manuel Acosta, Nuria Altimir, Nina Buchmann, Alessandro Cescatti, Eric Ceschia, Stefan Fleck, et al. 2018. “Ancillary Vegetation Measurements at ICOS Ecosystem Stations.” International Agrophysics 32 (4): 645–64. doi:10.1515/intag-2017-0048.

Gourlez de la Motte, Louis, Ossénatou Mamadou, Yves Beckers, Bernard Bodson, Bernard Heinesch, and Marc Aubinet. 2018. “Rotational and Continuous Grazing Does Not Affect the Total Net Ecosystem Exchange of a Pasture Grazed by Cattle but Modifies CO 2 Exchange Dynamics.” Agriculture, Ecosystems & Environment 253 (February): 157–65. doi:10.1016/j.agee.2017.11.011.

Groh, Jannis, Veronika Slawitsch, Markus Herndl, Alexander Graf, Harry Vereecken, and Thomas Pütz. 2018. “Determining Dew and Hoar Frost Formation for a Low Mountain Range and Alpine Grassland Site by Weighable Lysimeter.” Journal of Hydrology 563 (August). Elsevier BV: 372–81. doi:10.1016/j.jhydrol.2018.06.009.

Hari, Pertti, Steffen Noe, Sigrid Dengel, Jan Elbers, Bert Gielen, Veli-Matti Kerminen, Bart Kruijt, et al. 2018. “Prediction of Photosynthesis in Scots Pine Ecosystems across Europe by a Needle-Level Theory.” Atmospheric Chemistry and Physics 18 (18). Copernicus GmbH: 13321–28. doi:10.5194/acp-18-13321-2018.

Hodgkins, Suzanne B, Curtis J Richardson, René Dommain, Hongjun Wang, Paul H Glaser, Brittany Verbeke, B Rose Winkler, et al. 2018. “Tropical Peatland Carbon Storage Linked to Global Latitudinal Trends in Peat Recalcitrance.” Nature Communications 9 (1). Springer Nature. doi:10.1038/s41467-018-06050-2.

Honkanen, Martti, Juha-Pekka Tuovinen, Tuomas Laurila, Timo Mäkelä, Juha Hatakka, Sami Kielosto, and Lauri Laakso. 2018. “Measuring Turbulent CO2 Fluxes with a Closed-Path Gas Analyzer in a Marine Environment.” Atmospheric Measurement Techniques 11 (9). Copernicus GmbH: 5335–50. doi:10.5194/amt-11-5335-2018.

Hooghiem, Joram J D, Marcel de Vries, Henk A Been, Pauli Heikkinen, Rigel Kivi, and Huilin Chen. 2018. “LISA: A Lightweight Stratospheric Air Sampler.” Atmospheric Measurement Techniques 11 (12). Copernicus GmbH: 6785–6801. doi:10.5194/amt-11-6785-2018.

Hufkens, Koen, Gianluca Filippa, Edoardo Cremonese, Mirco Migliavacca, Petra D’Odorico, Matthias Peichl, Bert Gielen, et al. 2018. “Assimilating Phenology Datasets Automatically across ICOS Ecosystem Stations.” International Agrophysics 32 (4): 677–87. doi:10.1515/intag-2017-0050.

Ibraim, Erkan, Benjamin Wolf, Eliza Harris, Rainer Gasche, Jing Wei, Longfei Yu, Ralf Kiese, et al. 2018. “Attribution of N2O Sources in a Grassland Soil with Laser Spectroscopy Based Isotopocule Analysis.” Biogeosciences Discussions. Copernicus GmbH, 1–27. doi:10.5194/bg-2018-426.

Järveoja, Järvi, Mats B Nilsson, Michal Gažovič, Patrick M Crill, and Matthias Peichl. 2018. “Partitioning of the Net CO2 Exchange Using an Automated Chamber System Reveals Plant Phenology as Key Control of Production and Respiration Fluxes in a Boreal Peatland.” Global Change Biology 24 (8). Wiley: 3436–51. doi:10.1111/gcb.14292.

Järvi, Leena, Üllar Rannik, Tom V Kokkonen, Mona Kurppa, Ari Karppinen, Rostislav D Kouznetsov, Pekka Rantala, Timo Vesala, and Curtis R Wood. 2018. “Uncertainty of Eddy Covariance Flux Measurements over an Urban Area Based on Two Towers.” Atmospheric Measurement Techniques 11 (10). Copernicus GmbH: 5421–38. doi:10.5194/amt-11-5421-2018.

Jirí, DuSek, Acosta Manuel, Stellner Stanislav, Sigut Ladislav, and Pavelka Marian. 2018. “Consumption of Atmospheric Methane by Soil in a Lowland Broadleaf Mixed Forest.” Plant, Soil and Environment 64 (No. 8). Czech Academy of Agricultural Sciences: 400–406. doi:10.17221/183/2018-pse.

Jocher, Georg, John Marshall, Mats B. Nilsson, Sune Linder, Giuseppe De Simon, Thomas Hörnlund, Tomas Lundmark, et al. 2018. “Impact of Canopy Decoupling and Subcanopy Advection on the Annual Carbon Balance of a Boreal Scots Pine Forest as Derived From Eddy Covariance.” Journal of Geophysical Research: Biogeosciences 123 (2): 303–25. doi:10.1002/2017JG003988.

Jurán, S, M Edwards-Jonášová, P Cudl\’\in, M Zapletal, L Šigut, J Grace, and O Urban. 2018. “Prediction of Ozone Effects on Net Ecosystem Production of Norway Spruce Forest.” iForest - Biogeosciences and Forestry 11 (6). Italian Society of Sivilculture and Forest Ecology (SISEF): 743–50. doi:10.3832/ifor2805-011.

Jurevics, Arnis, Matthias Peichl, and Gustaf Egnell. 2018. “Stand Volume Production in the Subsequent Stand during Three Decades Remains Unaffected by Slash and Stump Harvest in Nordic Forests.” Forests 9 (12). MDPI AG: 770. doi:10.3390/f9120770.

Kaisermann, Aurore, Jérôme Ogée, Joana Sauze, Steven Wohl, Sam P Jones, Ana Gutierrez, and Lisa Wingate. 2018. “Disentangling the Rates of Carbonyl Sulfide (COS) Production and Consumption and Their Dependency on Soil Properties across Biomes and Land Use Types.” Atmospheric Chemistry and Physics 18 (13). Copernicus GmbH: 9425–40. doi:10.5194/acp-18-9425-2018.

Katul, Gabriel, Olli Peltola, Tiia Grönholm, Samuli Launiainen, Ivan Mammarella, and Timo Vesala. 2018. “Ejective and Sweeping Motions Above a Peatland and Their Role in Relaxed-Eddy-Accumulation Measurements and Turbulent Transport Modelling.” Boundary-Layer Meteorology 169 (2). Springer Nature: 163–84. doi:10.1007/s10546-018-0372-4.

Kiese, R, B Fersch, C Baessler, C Brosy, K Butterbach-Bahl, C Chwala, M Dannenmann, et al. 2018. “The TERENO Pre-Alpine Observatory: Integrating Meteorological, Hydrological, and Biogeochemical Measurements and Modeling.” Vadose Zone Journal 17 (1). Soil Science Society of America: 0. doi:10.2136/vzj2018.03.0060.

Kiselák, Jozef, Jivi Dušek, and Milan Stehlík. 2018. “Recurrence of CH4 and CO2 Emissions Measured by a Non-Steady State Flow-through Chamber System.” In . Author(s). doi:10.1063/1.5081566.

Kiuru, Petri, Anne Ojala, Ivan Mammarella, Jouni Heiskanen, Matti Kämäräinen, Timo Vesala, and Timo Huttula. 2018. “Effects of Climate Change on CO2 Concentration and Efflux in a Humic Boreal Lake: A Modeling Study.” Journal of Geophysical Research: Biogeosciences 123 (7). American Geophysical Union (AGU): 2212–33. doi:10.1029/2018jg004585.

Knauer, Jürgen, Sönke Zaehle, Belinda E. Medlyn, Markus Reichstein, Christopher A. Williams, Mirco Migliavacca, Martin G. De Kauwe, et al. 2018. “Towards Physiologically Meaningful Water-Use Efficiency Estimates from Eddy Covariance Data.” Global Change Biology 24 (2). doi:10.1111/gcb.13893.

Korrensalo, Aino, Laura Kettunen, Raija Laiho, Pavel Alekseychik, Timo Vesala, Ivan Mammarella, and Eeva-Stiina Tuittila. 2018. “Boreal Bog Plant Communities along a Water Table Gradient Differ in Their Standing Biomass but Not Their Biomass Production.” Edited by Stephen Roxburgh. Journal of Vegetation Science 29 (2). Wiley: 136–46. doi:10.1111/jvs.12602.

Korrensalo, Aino, Elisa Männistö, Pavel Alekseychik, Ivan Mammarella, Janne Rinne, Timo Vesala, and Eeva-Stiina Tuittila. 2018. “Small Spatial Variability in Methane Emission Measured from a Wet Patterned Boreal Bog.” Biogeosciences 15 (6). Copernicus GmbH: 1749–61. doi:10.5194/bg-15-1749-2018.

Kountouris, P., Gerbig, C., Rödenbeck, C., Karstens, U., Koch, T. F., and Heimann, M. 2018. “Atmospheric CO2 Inversions on the Mesoscale Using Data-Driven Prior Uncertainties: Quantification of the European Terrestrial CO2 Fluxes.” Atmospheric Chemistry and Physics 18: 3047–64. doi:10.5194/acp-18-3047-2018.

Kovalets, Ivan, Rodolfo Avila, Meelis Mölder, Sophia Kovalets, and Anders Lindroth. 2018. “Verification of a One-Dimensional Model of CO2 Atmospheric Transport Inside and Above a Forest Canopy Using Observations at the Norunda Research Station.” Boundary-Layer Meteorology 168 (1). Springer Nature: 103–26. doi:10.1007/s10546-018-0340-z.

Krupková, L., Kateřina Havránková, Jan Krejza, Pavel Sedlák, and Michal V Marek. 2018. “Impact of Water Scarcity on Spruce and Beech Forests.” Journal of Forestry Research.

Kuhn, McKenzie, Erik J Lundin, Reiner Giesler, Margareta Johansson, and Jan Karlsson. 2018. “Emissions from Thaw Ponds Largely Offset the Carbon Sink of Northern Permafrost Wetlands.” Scientific Reports 8 (1). Springer Nature. doi:10.1038/s41598-018-27770-x.

Kunz, Martin, Jost V Lavric, Christoph Gerbig, Pieter Tans, Don Neff, Christine Hummelgård, Hans Martin, Henrik Rödjegård, Burkhard Wrenger, and Martin Heimann. 2018. “COCAP: A Carbon Dioxide Analyser for Small Unmanned Aircraft Systems.” Atmospheric Measurement Techniques 11 (3). Copernicus GmbH: 1833–49. doi:10.5194/amt-11-1833-2018.

Le Quéré, Corinne, Robbie M. Andrew, Pierre Friedlingstein, Stephen Sitch, Julia Pongratz, Andrew C. Manning, Jan Ivar Korsbakken, et al. 2018. “Global Carbon Budget 2017.” Earth System Science Data 10 (1): 405–48. doi:10.5194/essd-10-405-2018.

Ledesma, José L. J., Martyn N. Futter, M. Blackburn, Fredrik Lidman, Thomas Grabs, Ryan A. Sponseller, Hjalmar Laudon, Kevin H. Bishop, and Stephan J. Köhler. 2018. “Towards an Improved Conceptualization of Riparian Zones in Boreal Forest Headwaters.” Ecosystems 21 (2): 297–315. doi:10.1007/s10021-017-0149-5.

Leip, Adrian, Ute Skiba, Alex Vermeulen, and Rona L. Thompson. 2018. “A Complete Rethink Is Needed on How Greenhouse Gas Emissions Are Quantified for National Reporting.” Atmospheric Environment 174 (February): 237–40. doi:10.1016/j.atmosenv.2017.12.006.

Leufen, Lukas Hubert, and Gerd Schädler. 2018. “Calculating the Turbulent Fluxes in the Atmospheric Surface Layer with Neural Networks.” Geoscientific Model Development Discussions, November. Copernicus GmbH, 1–22. doi:10.5194/gmd-2018-263.

Lindroth, Anders, Jutta Holst, Michal Heliasz, Patrik Vestin, Fredrik Lagergren, Tobias Biermann, Zhanzhang Cai, and Meelis Mölder. 2018. “Effects of Low Thinning on Carbon Dioxide Fluxes in a Mixed Hemiboreal Forest.” Agricultural and Forest Meteorology 262 (November). Elsevier BV: 59–70. doi:10.1016/j.agrformet.2018.06.021.

López-Ballesteros, Ana, Johannes Beck, Antonio Bombelli, Elisa Grieco, Eliška Krkoška Lorencová, Lutz Merbold, Christian Brümmer, et al. 2018. “Towards a Feasible and Representative Pan-African Research Infrastructure Network for GHG Observations.” Environmental Research Letters 13 (8): 085003. doi:10.1088/1748-9326/aad66c.

Loustau, Denis, Nuria Altimir, Mireille Barbaste, Bert Gielen, Sara Marańón Jiménez, Katja Klumpp, Sune Linder, et al. 2018. “Sampling and Collecting Foliage Elements for the Determination of the Foliar Nutrients in ICOS Ecosystem Stations.” International Agrophysics 32 (4): 665–76. doi:10.1515/intag-2017-0038.

Lucas-Moffat, Antje M., Vytas Huth, Jürgen Augustin, Christian Brümmer, Mathias Herbst, and Werner L. Kutsch. 2018. “Towards Pairing Plot and Field Scale Measurements in Managed Ecosystems: Using Eddy Covariance to Cross-Validate CO2 Fluxes Modeled from Manual Chamber Campaigns.” Agricultural and Forest Meteorology 256–257. doi:10.1016/j.agrformet.2018.01.023.

Lundström, Johanna, Karin Öhman, and Hjalmar Laudon. 2018. “Comparing Buffer Zone Alternatives in Forest Planning Using a Decision Support System.” Scandinavian Journal of Forest Research 33 (5). Informa UK Limited: 493–501. doi:10.1080/02827581.2018.1441900.

Malhotra, Avni, Tim R Moore, Juul Limpens, and Nigel T Roulet. 2018. “Post-Thaw Variability in Litter Decomposition Best Explained by Microtopography at an Ice-Rich Permafrost Peatland.” Arctic, Antarctic, and Alpine Research 50 (1). Informa UK Limited: e1415622. doi:10.1080/15230430.2017.1415622.

Martínez, B., S. Sanchez-Ruiz, M.A. Gilabert, A. Moreno, M. Campos-Taberner, F.J. García-Haro, I.F. Trigo, et al. 2018. “Retrieval of Daily Gross Primary Production over Europe and Africa from an Ensemble of SEVIRI/MSG Products.” International Journal of Applied Earth Observation and Geoinformation 65 (March): 124–36. doi:10.1016/j.jag.2017.10.011.

Martínez, B., S. Sanchez-Ruiz, M.A. Gilabert, A. Moreno, M. Campos-Taberner, F.J. García-Haro, I.F. Trigo, et al. 2018. “Retrieval of Daily Gross Primary Production over Europe and Africa from an Ensemble of SEVIRI/MSG Products.” International Journal of Applied Earth Observation and Geoinformation 65 (March): 124–36. doi:10.1016/j.jag.2017.10.011.

Mauder, Matthias, Sandra Genzel, Jin Fu, Ralf Kiese, Mohsen Soltani, Rainer Steinbrecher, Matthias Zeeman, Tirtha Banerjee, Frederik De Roo, and Harald Kunstmann. 2018. “Evaluation of Energy Balance Closure Adjustment Methods by Independent Evapotranspiration Estimates from Lysimeters and Hydrological Simulations.” Hydrological Processes 32 (1): 39–50. doi:10.1002/hyp.11397.

Mauder, Matthias, and Matthias J. Zeeman. 2018. “Field Intercomparison of Prevailing Sonic Anemometers.” Atmospheric Measurement Techniques 11 (1): 249–63. doi:10.5194/amt-11-249-2018.

McGloin, Ryan, Ladislav Šigut, Kateřina Havránková, Jiří Dušek, Marian Pavelka, and Pavel Sedlák. 2018. “Energy Balance Closure at a Variety of Ecosystems in Central Europe with Contrasting Topographies.” Agricultural and Forest Meteorology 248 (January): 418–31. doi:10.1016/j.agrformet.2017.10.003.

Menegat, Alexander, Per Milberg, Anders T S Nilsson, Lars Andersson, and Giulia Vico. 2018. “Soil Water Potential and Temperature Sum during Reproductive Growth Control Seed Dormancy in Alopecurus Myosuroides Huds.” Ecology and Evolution 8 (14). Wiley: 7186–94. doi:10.1002/ece3.4249.

Meredith, Laura K, Kristin Boye, Connor Youngerman, Mary Whelan, Jérôme Ogée, Joana Sauze, and Lisa Wingate. 2018. “Coupled Biological and Abiotic Mechanisms Driving Carbonyl Sulfide Production in Soils.” Soil Systems 2 (3). MDPI AG: 37. doi:10.3390/soilsystems2030037.

Montagnani, Leonardo, Thomas Grünwald, Andrew Kowalski, Ivan Mammarella, Lutz Merbold, Stefan Metzger, Pavel Sedlák, and Lukas Siebicke. 2018. “Estimating the Storage Term in Eddy Covariance Measurements: The ICOS Methodology.” International Agrophysics 32 (4): 551–67. doi:10.1515/intag-2017-0037.

Mozaffar, A., N. Schoon, A. Bachy, A. Digrado, B. Heinesch, M. Aubinet, M.-L. Fauconnier, P. Delaplace, P. du Jardin, and C. Amelynck. 2018. “Biogenic Volatile Organic Compound Emissions from Senescent Maize Leaves and a Comparison with Other Leaf Developmental Stages.” Atmospheric Environment 176 (March): 71–81. doi:10.1016/j.atmosenv.2017.12.020.

Mzobe, Pearl, Martin Berggren, Petter Pilesjö, Erik Lundin, David Olefeldt, Nigel T Roulet, and Andreas Persson. 2018. “Dissolved Organic Carbon in Streams within a Subarctic Catchment Analysed Using a GIS/Remote Sensing Approach.” Edited by Andrés Viña. PLOS ONE 13 (7). Public Library of Science (PLoS): e0199608. doi:10.1371/journal.pone.0199608.

Nemitz, Eiko, Ivan Mammarella, Andreas Ibrom, Mika Aurela, George G. Burba, Sigrid Dengel, Bert Gielen, et al. 2018. “Standardisation of Eddy-Covariance Flux Measurements of Methane and Nitrous Oxide.” International Agrophysics 32 (4): 517–49. doi:10.1515/intag-2017-0042.

Nemitz, Eiko, Ivan Mammarella, Andreas Ibrom, Mika Aurela, George G Burba, Sigrid Dengel, Bert Gielen, et al. 2018. “Standardisation of Eddy-Covariance Flux Measurements of Methane and Nitrous Oxide.” Int. Agrophys 32: 517–49. doi:10.1515/intag-2017-0042.

Nicolini, Giacomo, Marc Aubinet, Christian Feigenwinter, Bernard Heinesch, Anders Lindroth, Ossénatou Mamadou, Uta Moderow, et al. 2018. “Impact of CO2 Storage Flux Sampling Uncertainty on Net Ecosystem Exchange Measured by Eddy Covariance.” Agricultural and Forest Meteorology 248 (January): 228–39. doi:10.1016/j.agrformet.2017.09.025.

Nicolini, Giacomo, Marc Aubinet, Christian Feigenwinter, Bernard Heinesch, Anders Lindroth, Ossénatou Mamadou, Uta Moderow, et al. 2018. “Impact of CO 2 Storage Flux Sampling Uncertainty on Net Ecosystem Exchange Measured by Eddy Covariance.” Agricultural and Forest Meteorology 248 (January): 228–39. doi:10.1016/j.agrformet.2017.09.025.

Nilsson, Erik, Hans Bergström, Anna Rutgersson, Eva Podgrajsek, Marcus B Wallin, Gunnar Bergström, Ebba Dellwik, Sebastian Landwehr, and Brian Ward. 2018. “Evaluating Humidity and Sea Salt Disturbances on CO2 Flux Measurements.” Journal of Atmospheric and Oceanic Technology 35 (4). American Meteorological Society: 859–75. doi:10.1175/jtech-d-17-0072.1.

Oosterwijk, Aleid, Bas Henzing, and Leena Järvi. 2018. “On the Application of Spectral Corrections to Particle Flux Measurements.” Environmental Science: Nano 5 (10). Royal Society of Chemistry (RSC): 2315–24. doi:10.1039/c8en00501j.

Osterwalder, S, J Sommar, S Åkerblom, G Jocher, J Fritsche, M B Nilsson, K Bishop, and C Alewell. 2018. “Comparative Study of Elemental Mercury Flux Measurement Techniques over a Fennoscandian Boreal Peatland.” Atmospheric Environment 172 (January). Elsevier BV: 16–25. doi:10.1016/j.atmosenv.2017.10.025.

Palace, Michael, Christina Herrick, Jessica DelGreco, Daniel Finnell, Anthony Garnello, Carmody McCalley, Kellen McArthur, Franklin Sullivan, and Ruth Varner. 2018. “Determining Subarctic Peatland Vegetation Using an Unmanned Aerial System (UAS).” Remote Sensing 10 (9). MDPI AG: 1498. doi:10.3390/rs10091498.

Palmer, Paul I., Simon O&amp;apos;Doherty, Grant Allen, Keith Bower, Hartmut Bösch, Martyn P. Chipperfield, Sarah Connors, et al. 2018. “A Measurement-Based Verification Framework for UK Greenhouse Gas Emissions: An Overview of the Greenhouse GAs Uk and Global Emissions (GAUGE) Project.” Atmospheric Chemistry and Physics Discussions, February, 1–52. doi:10.5194/acp-2018-135.

Palonen, V, J Pumpanen, L Kulmala, I Levin, J Heinonsalo, and T Vesala. 2018. “Seasonal and Diurnal Variations in Atmospheric and Soil Air 14CO2 in a Boreal Scots Pine Forest.” Radiocarbon 60 (01): 283–97. doi:10.1017/RDC.2017.95.

Pavelka, Marian, Manuel Acosta, Ralf Kiese, Núria Altimir, Christian Brümmer, Patrick Crill, Eva Darenova, et al. 2018. “Standardisation of Chamber Technique for CO2, N2O and CH4 Fluxes Measurements from Terrestrial Ecosystems.” International Agrophysics 32 (4): 569–87. doi:10.1515/intag-2017-0045.

Peichl, Matthias, Michal Gažovič, Ilse Vermeij, Eefje de Goede, Oliver Sonnentag, Juul Limpens, and Mats B Nilsson. 2018. “Peatland Vegetation Composition and Phenology Drive the Seasonal Trajectory of Maximum Gross Primary Production.” Scientific Reports 8 (1). Springer Nature. doi:10.1038/s41598-018-26147-4.

Peltola, Olli, Maarit Raivonen, Xuefei Li, and Timo Vesala. 2018. “Technical Note: Comparison of Methane Ebullition Modelling Approaches Used in Terrestrial Wetland Models.” Biogeosciences 15 (3). Copernicus GmbH: 937–51. doi:10.5194/bg-15-937-2018.

Peltoniemi, Mikko, Mika Aurela, Kristin Böttcher, Pasi Kolari, John Loehr, Tatu Hokkanen, Jouni Karhu, et al. 2018. “Networked Web-Cameras Monitor Congruent Seasonal Development of Birches with Phenological Field Observations.” Agricultural and Forest Meteorology 249 (February). Elsevier BV: 335–47. doi:10.1016/j.agrformet.2017.10.008.

Peltoniemi, Mikko, Mika Aurela, Kristin Böttcher, Pasi Kolari, John Loehr, Jouni Karhu, Maiju Linkosalmi, Cemal Melih Tanis, Juha-Pekka Tuovinen, and Ali Nadir Arslan. 2018. “Webcam Network and Image Database for Studies of Phenological Changes of Vegetation and Snow Cover in Finland, Image Time Series from 2014 to 2016.” Earth System Science Data 10 (1). Copernicus GmbH: 173–84. doi:10.5194/essd-10-173-2018.

Pison, Isabelle, Antoine Berchet, Marielle Saunois, Philippe Bousquet, Grégoire Broquet, Sébastien Conil, Marc Delmotte, et al. 2018. “How a European Network May Help with Estimating Methane Emissions on the French National Scale.” Atmospheric Chemistry and Physics 18 (5): 3779–98. doi:10.5194/acp-18-3779-2018.

Post, Hanna, Harrie-Jan Hendricks Franssen, Xujun Han, Roland Baatz, Carsten Montzka, Marius Schmidt, and Harry Vereecken. 2018. “Evaluation and Uncertainty Analysis of Regional-Scale CLM4.5 Net Carbon Flux Estimates.” Biogeosciences 15 (1): 187–208. doi:10.5194/bg-15-187-2018.

Prinn, Ronald G, Ray F Weiss, Jgor Arduini, Tim Arnold, H Langley DeWitt, Paul J Fraser, Anita L Ganesan, et al. 2018. “History of Chemically and Radiatively Important Atmospheric Gases from the Advanced Global Atmospheric Gases Experiment (AGAGE).” Earth System Science Data 10 (2). Copernicus GmbH: 985–1018. doi:10.5194/essd-10-985-2018.

Provenzale, Maria, Anne Ojala, Jouni Heiskanen, Kukka-Maaria Erkkilä, Ivan Mammarella, Pertti Hari, and Timo Vesala. 2018. “High-Frequency Productivity Estimates for a Lake from Free-Water CO2 Concentration Measurements.” Biogeosciences 15 (7). Copernicus GmbH: 2021–32. doi:10.5194/bg-15-2021-2018.

Qiu, Chunjing, Dan Zhu, Philippe Ciais, Bertrand Guenet, Gerhard Krinner, Shushi Peng, Mika Aurela, et al. 2018. “ORCHIDEE-PEAT (Revision 4596), a Model for Northern Peatland CO2, Water, and Energy Fluxes on Daily to Annual Scales.” Geoscientific Model Development 11 (2): 497–519. doi:10.5194/gmd-11-497-2018.

Quade, Maria, Nicolas Brüggemann, Alexander Graf, Jan Vanderborght, Harry Vereecken, and Youri Rothfuss. 2018. “Investigation of Kinetic Isotopic Fractionation of Water During Bare Soil Evaporation.” Water Resources Research 54 (9). American Geophysical Union (AGU): 6909–28. doi:10.1029/2018wr023159.

Quéré, Corinne Le, Robbie M Andrew, Pierre Friedlingstein, Stephen Sitch, Judith Hauck, Julia Pongratz, Penelope A Pickers, et al. 2018. “Global Carbon Budget 2018.” Earth System Science Data 10 (4). Copernicus GmbH: 2141–94. doi:10.5194/essd-10-2141-2018.

Quéré, Corinne Le, Robbie M Andrew, Pierre Friedlingstein, Stephen Sitch, Julia Pongratz, Andrew C Manning, Jan Ivar Korsbakken, et al. 2018. “Global Carbon Budget 2017.” Earth System Science Data 10 (1). Copernicus GmbH: 405–48. doi:10.5194/essd-10-405-2018.

Rebmann, Corinna, Marc Aubinet, HaPe Schmid, Nicola Arriga, Mika Aurela, George Burba, Robert Clement, et al. 2018. “ICOS Eddy Covariance Flux-Station Site Setup: A Review.” International Agrophysics 32 (4): 471–94. doi:10.1515/intag-2017-0044.

Ricaud, Philippe, Régina Zbinden, Valéry Catoire, Vanessa Brocchi, François Dulac, Eric Hamonou, Jean-Christophe Canonici, et al. 2018. “The GLAM Airborne Campaign across the Mediterranean Basin.” Bulletin of the American Meteorological Society 99 (2): 361–80. doi:10.1175/BAMS-D-16-0226.1.

Rinne, Janne, Eeva-Stiina Tuittila, Olli Peltola, Xuefei Li, Maarit Raivonen, Pavel Alekseychik, Sami Haapanala, et al. 2018. “Temporal Variation of Ecosystem Scale Methane Emission From a Boreal Fen in Relation to Temperature, Water Table Position, and Carbon Dioxide Fluxes.” Global Biogeochemical Cycles 32 (7). American Geophysical Union (AGU): 1087–1106. doi:10.1029/2017gb005747.

Sabbatini, Simone, Ivan Mammarella, Nicola Arriga, Gerardo Fratini, Alexander Graf, Lukas Hörtnagl, Andreas Ibrom, et al. 2018. “Eddy Covariance Raw Data Processing for CO2 and Energy Fluxes Calculation at ICOS Ecosystem Stations.” International Agrophysics 32 (4): 495–515. doi:10.1515/intag-2017-0043.

Saunders, Matthew, Sigrid Dengel, Pasi Kolari, Christine Moureaux, Leonardo Montagnani, Eric Ceschia, Nuria Altimir, et al. 2018. “Importance of Reporting Ancillary Site Characteristics, and Management and Disturbance Information at ICOS Stations.” International Agrophysics 32 (4): 457–69. doi:10.1515/intag-2017-0040.

Siewert, Matthias B. 2018. “High-Resolution Digital Mapping of Soil Organic Carbon in Permafrost Terrain Using Machine Learning: A Case Study in a Sub-Arctic Peatland Environment.” Biogeosciences 15 (6). Copernicus GmbH: 1663–82. doi:10.5194/bg-15-1663-2018.

Singleton, Caitlin M, Carmody K McCalley, Ben J Woodcroft, Joel A Boyd, Paul N Evans, Suzanne B Hodgkins, Jeffrey P Chanton, et al. 2018. “Methanotrophy across a Natural Permafrost Thaw Environment.” The ISME Journal 12 (10). Springer Nature: 2544–58. doi:10.1038/s41396-018-0065-5.

Sponseller, Ryan A., M. Blackburn, M. B. Nilsson, and H. Laudon. 2018. “Headwater Mires Constitute a Major Source of Nitrogen (N) to Surface Waters in the Boreal Landscape.” Ecosystems 21 (1): 31–44. doi:10.1007/s10021-017-0133-0.

Sprenger, Matthias, Doerthe Tetzlaff, Jim Buttle, Sean K Carey, James P McNamara, Hjalmar Laudon, Nadine J Shatilla, and Chris Soulsby. 2018. “Storage, Mixing, and Fluxes of Water in the Critical Zone across Northern Environments Inferred by Stable Isotopes of Soil Water.” Hydrological Processes 32 (12). Wiley: 1720–37. doi:10.1002/hyp.13135.

Sprenger, Matthias, Doerthe Tetzlaff, Jim Buttle, Hjalmar Laudon, Hannes Leistert, Carl P J Mitchell, Jenna Snelgrove, Markus Weiler, and Chris Soulsby. 2018. “Measuring and Modeling Stable Isotopes of Mobile and Bulk Soil Water.” Vadose Zone Journal 17 (1). Soil Science Society of America: 0. doi:10.2136/vzj2017.08.0149.

Sun, Wu, Linda M J Kooijmans, Kadmiel Maseyk, Huilin Chen, Ivan Mammarella, Timo Vesala, Janne Levula, Helmi Keskinen, and Ulli Seibt. 2018. “Soil Fluxes of Carbonyl Sulfide (COS), Carbon Monoxide, and Carbon Dioxide in A~boreal Forest in Southern Finland.” Atmospheric Chemistry and Physics 18 (2). Copernicus GmbH: 1363–78. doi:10.5194/acp-18-1363-2018.

Susiluoto, Jouni, Maarit Raivonen, Leif Backman, Marko Laine, Jarmo Makela, Olli Peltola, Timo Vesala, and Tuula Aalto. 2018. “Calibrating the sqHIMMELI v1.0 Wetland Methane Emission Model with Hierarchical Modeling and Adaptive MCMC.” Geoscientific Model Development 11 (3). Copernicus GmbH: 1199–1228. doi:10.5194/gmd-11-1199-2018.

Tamrakar, Rijan, Mark B Rayment, Fernando Moyano, Martina Mund, and Alexander Knohl. 2018. “Implications of Structural Diversity for Seasonal and Annual Carbon Dioxide Fluxes in Two Temperate Deciduous Forests.” Agricultural and Forest Meteorology 263 (December). Elsevier BV: 465–76. doi:10.1016/j.agrformet.2018.08.027.

Tang, Jing, Alla Y Yurova, Guy Schurgers, Paul A Miller, Stefan Olin, Benjamin Smith, Matthias B Siewert, David Olefeldt, Petter Pilesjö, and Anneli Poska. 2018. “Drivers of Dissolved Organic Carbon Export in a Subarctic Catchment: Importance of Microbial Decomposition, Sorption-Desorption, Peatland and Lateral Flow.” Science of The Total Environment 622–623. Elsevier BV: 260–74. doi:10.1016/j.scitotenv.2017.11.252.

Tiwari, Tejshree, Ryan A Sponseller, and Hjalmar Laudon. 2018. “Extreme Climate Effects on Dissolved Organic Carbon Concentrations During Snowmelt.” Journal of Geophysical Research: Biogeosciences 123 (4). Wiley: 1277–88. doi:10.1002/2017jg004272.

Toit, Andrea Du. 2018. “Permafrost Thawing and Carbon Metabolism.” Nature Reviews Microbiology 16 (9). Springer Nature: 519. doi:10.1038/s41579-018-0066-4.

Trubl, Gareth, Ho Bin Jang, Simon Roux, Joanne B Emerson, Natalie Solonenko, Dean R Vik, Lindsey Solden, et al. 2018. “Soil Viruses Are Underexplored Players in Ecosystem Carbon Processing.” Edited by Seth Bordenstein. MSystems 3 (5). American Society for Microbiology. doi:10.1128/msystems.00076-18.

Vanbeveren, Stefan P.P., Fabio De Francesco, Reinhart Ceulemans, and Raffaele Spinelli. 2018. “Productivity of Mechanized Whip Harvesting with the Stemster MkIII in a Short-Rotation Coppice Established on Farmland.” Biomass and Bioenergy 108 (January): 323–29. doi:10.1016/j.biombioe.2017.11.024.

Vezy, Rémi, Mathias Christina, Olivier Roupsard, Yann Nouvellon, Remko Duursma, Belinda Medlyn, Maxime Soma, et al. 2018. “Measuring and Modelling Energy Partitioning in Canopies of Varying Complexity Using MAESPA Model.” Agricultural and Forest Meteorology 253–254. Elsevier BV: 203–17. doi:10.1016/j.agrformet.2018.02.005.

von Buttlar, Jannis, Jakob Zscheischler, Anja Rammig, Sebastian Sippel, Markus Reichstein, Alexander Knohl, Martin Jung, et al. 2018. “Impacts of Droughts and Extreme-Temperature Events on Gross Primary Production and Ecosystem Respiration: A Systematic Assessment across Ecosystems and Climate Zones.” Biogeosciences 15 (5): 1293–1318. doi:10.5194/bg-15-1293-2018.

Wang, Siyu, Xinchen Lu, Xiao Cheng, Xianglan Li, Matthias Peichl, and Ivan Mammarella. 2018. “Limitations and Challenges of MODIS-Derived Phenological Metrics Across Different Landscapes in Pan-Arctic Regions.” Remote Sensing 10 (11). MDPI AG: 1784. doi:10.3390/rs10111784.

Wang, Yilong, Grégoire Broquet, Philippe Ciais, Frédéric Chevallier, Felix Vogel, Lin Wu, Yi Yin, Rong Wang, and Shu Tao. 2018. “Potential of European 14CO2 Observation Network to Estimate the Fossil Fuel CO2 Emissions via Atmospheric Inversions.” Atmospheric Chemistry and Physics 18 (6). doi:10.5194/acp-18-4229-2018.

Whitaker, Jeanette, John L. Field, Carl J. Bernacchi, Carlos E. P. Cerri, Reinhart Ceulemans, Christian A. Davies, Evan H. DeLucia, et al. 2018. “Consensus, Uncertainties and Challenges for Perennial Bioenergy Crops and Land Use.” GCB Bioenergy 10 (3): 150–64. doi:10.1111/gcbb.12488.

Woodcroft, Ben J, Caitlin M Singleton, Joel A Boyd, Paul N Evans, Joanne B Emerson, Ahmed A F Zayed, Robert D Hoelzle, et al. 2018. “Genome-Centric View of Carbon Processing in Thawing Permafrost.” Nature 560 (7716). Springer Nature: 49–54. doi:10.1038/s41586-018-0338-1.

Wu, Lichuan, Tihomir Hristov, and Anna Rutgersson. 2018. “Vertical Profiles of Wave-Coherent Momentum Flux and Velocity Variances in the Marine Atmospheric Boundary Layer.” Journal of Physical Oceanography 48 (3). American Meteorological Society: 625–41. doi:10.1175/jpo-d-17-0052.1.

Wu, Xiuchen, Hongyan Liu, Xiaoyan Li, Philippe Ciais, Flurin Babst, Weichao Guo, Cicheng Zhang, et al. 2018. “Differentiating Drought Legacy Effects on Vegetation Growth over the Temperate Northern Hemisphere.” Global Change Biology 24 (1): 504–16. doi:10.1111/gcb.13920.

Xueref-Remy, Irène, Elsa Dieudonné, Cyrille Vuillemin, Morgan Lopez, Christine Lac, Martina Schmidt, Marc Delmotte, et al. 2018. “Diurnal, Synoptic and Seasonal Variability of Atmospheric CO2 in the Paris Megacity Area.” Atmospheric Chemistry and Physics 18 (5): 3335–62. doi:10.5194/acp-18-3335-2018.

Yasunaka, Sayaka, Eko Siswanto, Are Olsen, Mario Hoppema, Eiji Watanabe, Agneta Fransson, Melissa Chierici, et al. 2018. “Arctic Ocean CO2 Uptake: An Improved Multiyear Estimate of the Air-Sea CO2 Flux Incorporating Chlorophyll~a Concentrations.” Biogeosciences 15 (6). Copernicus GmbH: 1643–61. doi:10.5194/bg-15-1643-2018.

Yasunaka, Sayaka, Eko Siswanto, Are Olsen, Mario Hoppema, Eiji Watanabe, Agneta Fransson, Melissa Chierici, et al. 2018. “Arctic Ocean CO2 Uptake: An Improved Multiyear Estimate of the Air-Sea CO2 Flux Incorporating Chlorophyll~a Concentrations.” Biogeosciences 15 (6). Copernicus GmbH: 1643–61. doi:10.5194/bg-15-1643-2018.

Yazidi, Abdelhadi El, Michel Ramonet, Philippe Ciais, Gregoire Broquet, Isabelle Pison, Amara Abbaris, Dominik Brunner, et al. 2018. “Identification of Spikes Associated with Local Sources in Continuous Time Series of Atmospheric CO, CO2and CH4.” Atmospheric Measurement Techniques 11 (3). doi:10.5194/amt-11-1599-2018.

Yuan, Ye, Ludwig Ries, Hannes Petermeier, Martin Steinbacher, Angel J Gómez-Peláez, Markus C Leuenberger, Marcus Schumacher, et al. 2018. “Adaptive Selection of Diurnal Minimum Variation: A Statistical Strategy to Obtain Representative Atmospheric CO2 Data and Its Application to European Elevated Mountain Stations.” Atmospheric Measurement Techniques 11 (3). Copernicus GmbH: 1501–14. doi:10.5194/amt-11-1501-2018.

Zhou, Minqiang, Bavo Langerock, Corinne Vigouroux, Mahesh Kumar Sha, Michel Ramonet, Marc Delmotte, Emmanuel Mahieu, et al. 2018. “Atmospheric CO and CH4 Time Series and Seasonal Variations on Reunion Island from Ground-Based in Situ and FTIR DACC and TCCON Measurements.” Atmospheric Chemistry and Physics 18 (19). Copernicus GmbH: 13881–901. doi:10.5194/acp-18-13881-2018.

Zwaaftink, Christine D Groot, Stephan Henne, Rona L Thompson, Edward J Dlugokencky, Toshinobu Machida, Jean-Daniel Paris, Motoki Sasakawa, Arjo Segers, Colm Sweeney, and Andreas Stohl. 2018. “Three-Dimensional Methane Distribution Simulated with FLEXPART 8-CTM-1.1 Constrained with Observation Data.” Geoscientific Model Development 11 (11). Copernicus GmbH: 4469–87. doi:10.5194/gmd-11-4469-2018.

Zweifel, Roman, and Frank Sterck. 2018. “A Conceptual Tree Model Explaining Legacy Effects on Stem Growth.” Frontiers in Forests and Global Change 1 (November). Frontiers Media SA. doi:10.3389/ffgc.2018.00009.

# 2017

Acosta, Manuel, Eva Darenova, Jiří Dušek, and Marian Pavelka. 2017. “Soil Carbon Dioxide Fluxes in a Mixed Floodplain Forest in the Czech Republic.” European Journal of Soil Biology 82 (September): 35–42. doi:10.1016/j.ejsobi.2017.08.006.

Acosta, Manuel, Radek Juszczak, Bogdan Chojnicki, Marian Pavelka, Kateřina Havránková, Jacek Lesny, Lenka Krupková, Marek Urbaniak, Kateřina Machačová, and Janusz Olejnik. 2017. “CO2 Fluxes from Different Vegetation Communities on a Peatland Ecosystem.” Wetlands 37 (3). doi:10.1007/s13157-017-0878-4.

Ala-aho, Pertti, Doerthe Tetzlaff, James P. McNamara, Hjalmar Laudon, Patrick Kormos, and Chris Soulsby. 2017. “Modeling the Isotopic Evolution of Snowpack and Snowmelt: Testing a Spatially Distributed Parsimonious Approach.” Water Resources Research 53 (7): 5813–30. doi:10.1002/2017WR020650.

Ala-aho, Pertti, Doerthe Tetzlaff, James P. McNamara, Hjalmar Laudon, and Chris Soulsby. 2017. “Using Isotopes to Constrain Water Flux and Age Estimates in Snow-Influenced Catchments Using the STARR (Spatially Distributed Tracer-Aided Rainfall–Runoff) Model.” Hydrology and Earth System Sciences 21 (10): 5089–5110. doi:10.5194/hess-21-5089-2017.

Alekseychik, P. K., A. Korrensalo, I. Mammarella, T. Vesala, and E.-S. Tuittila. 2017. “Relationship between Aerodynamic Roughness Length and Bulk Sedge Leaf Area Index in a Mixed-Species Boreal Mire Complex.” Geophysical Research Letters 44 (11): 5836–43. doi:10.1002/2017GL073884.

Ameli, Ali A. 2017. “Controls on Subsurface Transport of Sorbing Contaminant.” Hydrology Research 48 (5): 1226–39. doi:10.2166/nh.2016.170.

Ameli, Ali A., Keith Beven, Martin Erlandsson, Irena F. Creed, Jeffrey J. McDonnell, and Kevin Bishop. 2017. “Primary Weathering Rates, Water Transit Times, and Concentration-Discharge Relations: A Theoretical Analysis for the Critical Zone.” Water Resources Research 53 (1): 942–60. doi:10.1002/2016WR019448.

Ameli, Ali A, and James R Craig. 2017. “Semi-Analytical 3D Solution for Assessing Radial Collector Well Pumping Impacts on Groundwater-Surface Water Interaction.” Hydrology Research 49 (1). IWA Publishing: 17–26. doi:10.2166/nh.2017.201.

Amvrosiadi, Nino, Kevin Bishop, and Jan Seibert. 2017. “Soil Moisture Storage Estimation Based on Steady Vertical Fluxes under Equilibrium.” Journal of Hydrology 553 (October): 798–804. doi:10.1016/j.jhydrol.2017.08.042.

Amvrosiadi, Nino, Jan Seibert, Thomas Grabs, and Kevin Bishop. 2017. “Water Storage Dynamics in a till Hillslope: The Foundation for Modeling Flows and Turnover Times.” Hydrological Processes 31 (1): 4–14. doi:10.1002/hyp.11046.

Andriamandroso, Andriamasinoro Lalaina Herinaina, Frédéric Lebeau, Yves Beckers, Eric Froidmont, Isabelle Dufrasne, Bernard Heinesch, Pierre Dumortier, Guillaume Blanchy, Yannick Blaise, and Jérôme Bindelle. 2017. “Development of an Open-Source Algorithm Based on Inertial Measurement Units (IMU) of a Smartphone to Detect Cattle Grass Intake and Ruminating Behaviors.” Computers and Electronics in Agriculture 139 (June): 126–37. doi:10.1016/j.compag.2017.05.020.

Arriga, Nicola, Üllar Rannik, Marc Aubinet, Arnaud Carrara, Timo Vesala, and Dario Papale. 2017. “Experimental Validation of Footprint Models for Eddy Covariance CO 2 Flux Measurements above Grassland by Means of Natural and Artificial Tracers.” Agricultural and Forest Meteorology 242 (August): 75–84. doi:10.1016/j.agrformet.2017.04.006.

Arslan, Ali, Cemal Tanis, Sari Metsämäki, Mika Aurela, Kristin Böttcher, Maiju Linkosalmi, and Mikko Peltoniemi. 2017. “Automated Webcam Monitoring of Fractional Snow Cover in Northern Boreal Conditions.” Geosciences 7 (3): 55. doi:10.3390/geosciences7030055.

Askne, Jan I.H., Maciej J. Soja, and Lars M.H. Ulander. 2017. “Biomass Estimation in a Boreal Forest from TanDEM-X Data, Lidar DTM, and the Interferometric Water Cloud Model.” Remote Sensing of Environment 196 (July): 265–78. doi:10.1016/j.rse.2017.05.010.

Auvinen, Mikko, Leena Järvi, Antti Hellsten, Üllar Rannik, and Timo Vesala. 2017. “Numerical Framework for the Computation of Urban Flux Footprints Employing Large-Eddy Simulation and Lagrangian Stochastic Modeling.” Geoscientific Model Development 10 (11): 4187–4205. doi:10.5194/gmd-10-4187-2017.

Bamberger, Ines, Brian Oney, Dominik Brunner, Stephan Henne, Markus Leuenberger, Nina Buchmann, and Werner Eugster. 2017. “Observations of Atmospheric Methane and Carbon Dioxide Mixing Ratios: Tall-Tower or Mountain-Top Stations?” Boundary-Layer Meteorology 164 (1): 135–59. doi:10.1007/s10546-017-0236-3.

Barnes, Andrew D, Kara Allen, Holger Kreft, Marife D Corre, Malte Jochum, Edzo Veldkamp, Yann Clough, et al. 2017. “Direct and Cascading Impacts of Tropical Land-Use Change on Multi-Trophic Biodiversity.” Nature Ecology & Evolution 1 (10). Springer Nature: 1511–19. doi:10.1038/s41559-017-0275-7.

Berhanu, Tesfaye A., Sönke Szidat, Dominik Brunner, Ece Satar, Rüdiger Schanda, Peter Nyfeler, Michael Battaglia, Martin Steinbacher, Samuel Hammer, and Markus Leuenberger. 2017. “Estimation of the Fossil Fuel Component in Atmospheric CO&amp;Lt;Sub&amp;Gt;2&amp;Lt;/Sub&amp;Gt; Based on Radiocarbon Measurements at the Beromünster Tall Tower, Switzerland.” Atmospheric Chemistry and Physics 17 (17): 10753–66. doi:10.5194/acp-17-10753-2017.

Berhongaray, Gonzalo, Melanie S. Verlinden, Laura S. Broeckx, Ivan A. Janssens, and Reinhart Ceulemans. 2017. “Soil Carbon and Belowground Carbon Balance of a Short-Rotation Coppice: Assessments from Three Different Approaches.” GCB Bioenergy 9 (2): 299–313. doi:10.1111/gcbb.12369.

Bidleman, Terry F., Eva Brorström-Lundén, Katarina Hansson, Hjalmar Laudon, Olle Nygren, and Mats Tysklind. 2017. “Atmospheric Transport and Deposition of Bromoanisoles Along a Temperate to Arctic Gradient.” Environmental Science & Technology 51 (19): 10974–82. doi:10.1021/acs.est.7b03218.

Bidleman, Terry F., Hjalmar Laudon, Olle Nygren, Staffan Svanberg, and Mats Tysklind. 2017. “Chlorinated Pesticides and Natural Brominated Anisoles in Air at Three Northern Baltic Stations.” Environmental Pollution 225 (June): 381–89. doi:10.1016/j.envpol.2017.02.064.

Blackburn, M., José L. J. Ledesma, Torgny Näsholm, Hjalmar Laudon, and Ryan A. Sponseller. 2017. “Evaluating Hillslope and Riparian Contributions to Dissolved Nitrogen (N) Export from a Boreal Forest Catchment.” Journal of Geophysical Research: Biogeosciences 122 (2): 324–39. doi:10.1002/2016JG003535.

Bloemen, Jasper, Régis Fichot, Joanna A. Horemans, Laura S. Broeckx, Melanie S. Verlinden, Terenzio Zenone, and Reinhart Ceulemans. 2017. “Water Use of a Multigenotype Poplar Short-Rotation Coppice from Tree to Stand Scale.” GCB Bioenergy 9 (2): 370–84. doi:10.1111/gcbb.12345.

Boese, Sven, Martin Jung, Nuno Carvalhais, and Markus Reichstein. 2017. “The Importance of Radiation for Semiempirical Water-Use Efficiency Models.” Biogeosciences 14 (12): 3015–26. doi:10.5194/bg-14-3015-2017.

Bogena HR, Montzka C, Hendricks-Franssen HJ and Vereecken H. 2017. “A Blueprint for a Distributed Terrestrial Ecosystem Research Infrastructure.” In Terrestrial Ecosystem Research Infrastructures: Challenges, New Developments and Perspectives, edited by Chabbi A and Loescher H, 279–302. CRS Press, Taylor & Francis Group.

Bréchet, Laëtitia, Valérie Le Dantec, Stéphane Ponton, Jean-Yves Goret, Emma Sayer, Damien Bonal, Vincent Freycon, Jacques Roy, and Daniel Epron. 2017. “Short- and Long-Term Influence of Litter Quality and Quantity on Simulated Heterotrophic Soil Respiration in a Lowland Tropical Forest.” Ecosystems 20 (6): 1190–1204. doi:10.1007/s10021-016-0104-x.

Brümmer, Christian, Bjarne Lyshede, Dirk Lempio, Jean-Pierre Delorme, Jeremy J. Rüffer, Roland Fuß, Antje M. Moffat, et al. 2017. “Gas Chromatography vs. Quantum Cascade Laser-Based N2O Flux Measurements Using a Novel Chamber Design.” Biogeosciences 14 (6): 1365–81. doi:10.5194/bg-14-1365-2017.

Burrows, Ryan M., Hjalmar Laudon, Brendan G. McKie, and Ryan A. Sponseller. 2017. “Seasonal Resource Limitation of Heterotrophic Biofilms in Boreal Streams.” Limnology and Oceanography 62 (1): 164–76. doi:10.1002/lno.10383.

Buysse, Pauline, Bernard Bodson, Alain Debacq, Anne De Ligne, Bernard Heinesch, Tanguy Manise, Christine Moureaux, and Marc Aubinet. 2017. “Carbon Budget Measurement over 12 Years at a Crop Production Site in the Silty-Loam Region in Belgium.” Agricultural and Forest Meteorology 246 (November): 241–55. doi:10.1016/j.agrformet.2017.07.004.

Bye, I.J., P.R.J. North, S.O. Los, N. Kljun, J.A.B. Rosette, C. Hopkinson, L. Chasmer, and C. Mahoney. 2017. “Estimating Forest Canopy Parameters from Satellite Waveform LiDAR by Inversion of the FLIGHT Three-Dimensional Radiative Transfer Model.” Remote Sensing of Environment 188 (January): 177–89. doi:10.1016/j.rse.2016.10.048.

Cai, Zhanzhang, Per Jönsson, Hongxiao Jin, and Lars Eklundh. 2017. “Performance of Smoothing Methods for Reconstructing NDVI Time-Series and Estimating Vegetation Phenology from MODIS Data.” Remote Sensing 9 (12): 1271. doi:10.3390/rs9121271.

Campeau, Audrey, Kevin H. Bishop, Michael F. Billett, Mark H. Garnett, Hjalmar Laudon, Jason A. Leach, Mats B. Nilsson, Mats G. Öquist, and Marcus B. Wallin. 2017. “Aquatic Export of Young Dissolved and Gaseous Carbon from a Pristine Boreal Fen: Implications for Peat Carbon Stock Stability.” Global Change Biology 23 (12): 5523–36. doi:10.1111/gcb.13815.

Campeau, Audrey, Marcus B. Wallin, Reiner Giesler, Stefan Löfgren, Carl-Magnus Mörth, Sherry Schiff, Jason J. Venkiteswaran, and Kevin Bishop. 2017. “Multiple Sources and Sinks of Dissolved Inorganic Carbon across Swedish Streams, Refocusing the Lens of Stable C Isotopes.” Scientific Reports 7 (1): 9158. doi:10.1038/s41598-017-09049-9.

Combe, M., A. J. W. de Wit, J. Vilà-Guerau de Arellano, M. K. van der Molen, V. Magliulo, and W. Peters. 2017. “Grain Yield Observations Constrain Cropland CO2 Fluxes Over Europe.” Journal of Geophysical Research: Biogeosciences 122 (12): 3238–59. doi:10.1002/2017JG003937.

Delogu, Emilie, Valérie Le Dantec, Patrick Mordelet, Eric Ceschia, Marc Aubinet, Pauline Buysse, and Elizabeth Pattey. 2017. “Improved Methodology to Quantify the Temperature Sensitivity of the Soil Heterotrophic Respiration in Croplands.” Geoderma 296 (June): 18–29. doi:10.1016/j.geoderma.2017.02.017.

Delpierre, Nicolas, Joannès Guillemot, Eric Dufrêne, Sébastien Cecchini, and Manuel Nicolas. 2017. “Tree Phenological Ranks Repeat from Year to Year and Correlate with Growth in Temperate Deciduous Forests.” Agricultural and Forest Meteorology 234–235 (March): 1–10. doi:10.1016/j.agrformet.2016.12.008.

Demuzere, M., S. Harshan, L. Järvi, M. Roth, C. S. B. Grimmond, V. Masson, K. W. Oleson, E. Velasco, and H. Wouters. 2017. “Impact of Urban Canopy Models and External Parameters on the Modelled Urban Energy Balance in a Tropical City.” Quarterly Journal of the Royal Meteorological Society 143 (704): 1581–96. doi:10.1002/qj.3028.

Deng, Jia, Carmody K McCalley, Steve Frolking, Jeff Chanton, Patrick Crill, Ruth Varner, Gene Tyson, et al. 2017. “Adding Stable Carbon Isotopes Improves Model Representation of the Role of Microbial Communities in Peatland Methane Cycling.” Journal of Advances in Modeling Earth Systems 9 (2): 1412–30. doi:10.1002/2016MS000817.

Digrado, Anthony, Aurélie Bachy, Ahsan Mozaffar, Niels Schoon, Filippo Bussotti, Crist Amelynck, Anne-Catherine Dalcq, et al. 2017. “Long-Term Measurements of Chlorophyll a Fluorescence Using the JIP-Test Show That Combined Abiotic Stresses Influence the Photosynthetic Performance of the Perennial Ryegrass ( Lolium Perenne ) in a Managed Temperate Grassland.” Physiologia Plantarum 161 (3): 355–71. doi:10.1111/ppl.12594.

Dinsmore, Kerry J., Julia Drewer, Peter E. Levy, Charles George, Annalea Lohila, Mika Aurela, and Ute M. Skiba. 2017. “Growing Season CH4 and N2O Fluxes from a Subarctic Landscape in Northern Finland; from Chamber to Landscape Scale.” Biogeosciences 14 (4): 799–815. doi:10.5194/bg-14-799-2017.

Dobler, Jeremy T., T. Scott Zaccheo, Timothy G. Pernini, Nathan Blume, Gregoire Broquet, Felix Vogel, Michel Ramonet, et al. 2017. “Demonstration of Spatial Greenhouse Gas Mapping Using Laser Absorption Spectrometers on Local Scales.” Journal of Applied Remote Sensing 11 (1): 014002. doi:10.1117/1.JRS.11.014002.

Dumortier, Pierre, M. Aubinet, Y. Beckers, H. Chopin, A. Debacq, L. Gourlez de la Motte, E. Jérôme, F. Wilmus, and B. Heinesch. 2017. “Methane Balance of an Intensively Grazed Pasture and Estimation of the Enteric Methane Emissions from Cattle.” Agricultural and Forest Meteorology 232 (January): 527–35. doi:10.1016/j.agrformet.2016.09.010.

Dušek, Jiří, Šárka Hudecová, and Stanislav Stellner. 2017. “Extreme Precipitation and Long-Term Precipitation Changes in a Central European Sedge-Grass Marsh in the Context of Flood Occurrence.” Hydrological Sciences Journal 62 (11): 1796–1808. doi:10.1080/02626667.2017.1353217.

Etchanchu, Jordi, Vincent Rivalland, Simon Gascoin, Jérôme Cros, Tiphaine Tallec, Aurore Brut, and Gilles Boulet. 2017. “Effects of High Spatial and Temporal Resolution Earth Observations on Simulated Hydrometeorological Variables in a Cropland (Southwestern France).” Hydrol. Earth Syst. Sci. 21 (11): 5693–5708. doi:10.5194/hess-21-5693-2017.

Feng, Song, Miroslav Trnka, Michael Hayes, and Yongjun Zhang. 2017. “Why Do Different Drought Indices Show Distinct Future Drought Risk Outcomes in the U.S. Great Plains?” Journal of Climate 30 (1): 265–78. doi:10.1175/JCLI-D-15-0590.1.

Fernández-Martínez, M., S. Vicca, I. A. Janssens, P. Ciais, M. Obersteiner, M. Bartrons, J. Sardans, et al. 2017. “Atmospheric Deposition, CO2, and Change in the Land Carbon Sink.” Scientific Reports 7 (1): 9632. doi:10.1038/s41598-017-08755-8.

Fisher, Rebecca E., James L. France, David Lowry, Mathias Lanoisellé, Rebecca Brownlow, John A. Pyle, Michelle Cain, et al. 2017. “Measurement of the 13 C Isotopic Signature of Methane Emissions from Northern European Wetlands.” Global Biogeochemical Cycles 31 (3): 605–23. doi:10.1002/2016GB005504.

Franklin, Oskar, Camila Aguetoni Cambui, Linda Gruffman, Sari Palmroth, Ram Oren, and Torgny Näsholm. 2017. “The Carbon Bonus of Organic Nitrogen Enhances Nitrogen Use Efficiency of Plants.” Plant, Cell & Environment 40 (1): 25–35. doi:10.1111/pce.12772.

Fu, Haiqiang, Jianjun Zhu, Changcheng Wang, Huiqiang Wang, and Rong Zhao. 2017. “Underlying Topography Estimation over Forest Areas Using High-Resolution P-Band Single-Baseline PolInSAR Data.” Remote Sensing 9 (4): 363. doi:10.3390/rs9040363.

Fu, Zheng, Paul C. Stoy, Yiqi Luo, Jiquan Chen, Jian Sun, Leonardo Montagnani, Georg Wohlfahrt, et al. 2017. “Climate Controls over the Net Carbon Uptake Period and Amplitude of Net Ecosystem Production in Temperate and Boreal Ecosystems.” Agricultural and Forest Meteorology 243 (September): 9–18. doi:10.1016/j.agrformet.2017.05.009.

Gałka, Mariusz, Marta Szal, Elizabeth J. Watson, Angela Gallego-Sala, Matthew J. Amesbury, Dan J. Charman, Thomas P. Roland, T. Edward Turner, and Graeme T. Swindles. 2017. “Vegetation Succession, Carbon Accumulation and Hydrological Change in Subarctic Peatlands, Abisko, Northern Sweden.” Permafrost and Periglacial Processes 28 (4): 589–604. doi:10.1002/ppp.1945.

Gao, Yao, Tiina Markkanen, Mika Aurela, Ivan Mammarella, Tea Thum, Aki Tsuruta, Huiyi Yang, and Tuula Aalto. 2017. “Response of Water Use Efficiency to Summer Drought in a Boreal Scots Pine Forest in Finland.” Biogeosciences 14 (18): 4409–22. doi:10.5194/bg-14-4409-2017.

Gielen, B., M. O. de Beeck, D. Loustau, R. Ceulemans, A. Jordan, and D. Papale. 2017. “Integrated Carbon Observation System (ICOS): An Infrastructure to Monitor the European Greenhouse Gas Balance.” In Terrestrial Ecosystem Research Infrastructures: Challenges and Opportunities, edited by Abad Chabbi and Henry W. Loescher. CRC press.

Gottselig, N., W. Amelung, J. W. Kirchner, R. Bol, W. Eugster, S. J. Granger, C. Hernández-Crespo, et al. 2017. “Elemental Composition of Natural Nanoparticles and Fine Colloids in European Forest Stream Waters and Their Role as Phosphorus Carriers.” Global Biogeochemical Cycles 31 (10): 1592–1607. doi:10.1002/2017GB005657.

Graven, Heather, Colin E. Allison, David M. Etheridge, Samuel Hammer, Ralph F. Keeling, Ingeborg Levin, Harro A. J. Meijer, et al. 2017. “Compiled Records of Carbon Isotopes in Atmospheric CO2 for Historical Simulations in CMIP6.” Geoscientific Model Development 10 (12): 4405–17. doi:10.5194/gmd-10-4405-2017.

Guillemot, Joannès, Christophe Francois, Gabriel Hmimina, Eric Dufrêne, Nicolas K. Martin-StPaul, Kamel Soudani, Guillaume Marie, Jean-Marc Ourcival, and Nicolas Delpierre. 2017. “Environmental Control of Carbon Allocation Matters for Modelling Forest Growth.” New Phytologist 214 (1): 180–93. doi:10.1111/nph.14320.

Haeni, M., R. Zweifel, W. Eugster, A. Gessler, S. Zielis, C. Bernhofer, A. Carrara, et al. 2017. “Winter Respiratory C Losses Provide Explanatory Power for Net Ecosystem Productivity.” Journal of Geophysical Research: Biogeosciences 122 (1): 243–60. doi:10.1002/2016JG003455.

Hammer, Samuel, Ronny Friedrich, Bernd Kromer, Alexander Cherkinsky, Scott J Lehman, Harro A J Meijer, Toshio Nakamura, et al. 2017. “Compatibility of Atmospheric 14CO2 Measurements: Comparing the Heidelberg Low-Level Counting Facility to International Accelerator Mass Spectrometry (AMS) Laboratories.” Radiocarbon 59 (03): 875–83. doi:10.1017/RDC.2016.62.

Hofmann, M.E.G., B. Horváth, L. Schneider, W. Peters, K. Schützenmeister, and A. Pack. 2017. “Atmospheric Measurements of Δ 17 O in CO 2 in Göttingen, Germany Reveal a Seasonal Cycle Driven by Biospheric Uptake.” Geochimica et Cosmochimica Acta 199 (February): 143–63. doi:10.1016/j.gca.2016.11.019.

Horemans, Joanna A., Alexandra Henrot, Christine Delire, Chris Kollas, Petra Lasch-Born, Christopher Reyer, Felicitas Suckow, Louis François, and Reinhart Ceulemans. 2017. “Combining Multiple Statistical Methods to Evaluate the Performance of Process-Based Vegetation Models across Three Forest Stands.” Central European Forestry Journal 63 (4). doi:10.1515/forj-2017-0025.

Horemans, Joanna A., Hanne Van Gaelen, Dirk Raes, Terenzio Zenone, and Reinhart Ceulemans. 2017. “Can the Agricultural AquaCrop Model Simulate Water Use and Yield of a Poplar Short-Rotation Coppice?” GCB Bioenergy 9 (6): 1151–64. doi:10.1111/gcbb.12422.

Hurdebise, Quentin, Bernard Heinesch, Anne De Ligne, Caroline Vincke, and Marc Aubinet. 2017. “Impact of Canopy Aerodynamic Distance Spatial and Temporal Variability on Long Term Eddy Covariance Measurements.” Agricultural and Forest Meteorology 247 (December): 131–38. doi:10.1016/j.agrformet.2017.07.013.

Ibánhez, J. Severino P., Manuel Flores, and Nathalie Lefèvre. 2017. “Collapse of the Tropical and Subtropical North Atlantic CO2 Sink in Boreal Spring of 2010.” Scientific Reports 7 (January): 41694. doi:10.1038/srep41694.

Jammet, Mathilde, Sigrid Dengel, Ernesto Kettner, Frans-Jan W. Parmentier, Martin Wik, Patrick Crill, and Thomas Friborg. 2017. “Year-Round CH4 and CO2 Flux Dynamics in Two Contrasting Freshwater Ecosystems of the Subarctic.” Biogeosciences 14 (22): 5189–5216. doi:10.5194/bg-14-5189-2017.

Järvi, L., C. S. B. Grimmond, J. P. McFadden, A. Christen, I. B. Strachan, M. Taka, L. Warsta, and M. Heimann. 2017. “Warming Effects on the Urban Hydrology in Cold Climate Regions.” Scientific Reports 7 (1): 5833. doi:10.1038/s41598-017-05733-y.

Jin, Hongxiao, Anna Maria Jönsson, Kjell Bolmgren, Ola Langvall, and Lars Eklundh. 2017. “Disentangling Remotely-Sensed Plant Phenology and Snow Seasonality at Northern Europe Using MODIS and the Plant Phenology Index.” Remote Sensing of Environment 198 (September): 203–12. doi:10.1016/j.rse.2017.06.015.

Jocher, Georg, Mikaell -->Ottosson Löfvenius, Giuseppe De Simon, Thomas Hörnlund, Sune Linder, Tomas Lundmark, John Marshall, et al. 2017. “Apparent Winter CO2 Uptake by a Boreal Forest Due to Decoupling.” Agricultural and Forest Meteorology 232 (January): 23–34. doi:10.1016/j.agrformet.2016.08.002.

Jones, Elizabeth M., Mario Hoppema, Volker Strass, Judith Hauck, Lesley Salt, Sharyn Ossebaar, Christine Klaas, et al. 2017. “Mesoscale Features Create Hotspots of Carbon Uptake in the Antarctic Circumpolar Current.” Deep Sea Research Part II: Topical Studies in Oceanography 138 (April): 39–51. doi:10.1016/j.dsr2.2015.10.006.

Jonsson, Micael, Ryan M. Burrows, Johan Lidman, Emma Fältström, Hjalmar Laudon, and Ryan A. Sponseller. 2017. “Land Use Influences Macroinvertebrate Community Composition in Boreal Headwaters through Altered Stream Conditions.” Ambio 46 (3): 311–23. doi:10.1007/s13280-016-0837-y.

Jung, Martin, Markus Reichstein, Christopher R. Schwalm, Chris Huntingford, Stephen Sitch, Anders Ahlström, Almut Arneth, et al. 2017. “Compensatory Water Effects Link Yearly Global Land CO2 Sink Changes to Temperature.” Nature 541 (7638): 516–20. doi:10.1038/nature20780.

Juráň, Stanislav, Emanuele Pallozzi, Gabriele Guidolotti, Silvano Fares, Ladislav Šigut, Carlo Calfapietra, Alessandro Alivernini, et al. 2017. “Fluxes of Biogenic Volatile Organic Compounds above Temperate Norway Spruce Forest of the Czech Republic.” Agricultural and Forest Meteorology 232 (January): 500–513. doi:10.1016/j.agrformet.2016.10.005.

Klosterhalfen, A., M. Herbst, L. Weihermüller, A. Graf, M. Schmidt, A. Stadler, K. Schneider, J.-A. Subke, J.A. Huisman, and H. Vereecken. 2017. “Multi-Site Calibration and Validation of a Net Ecosystem Carbon Exchange Model for Croplands.” Ecological Modelling 363 (November): 137–56. doi:10.1016/j.ecolmodel.2017.07.028.

Koirala, Sujan, Martin Jung, Markus Reichstein, Inge E. M. de Graaf, Gustau Camps-Valls, Kazuhito Ichii, Dario Papale, et al. 2017. “Global Distribution of Groundwater-Vegetation Spatial Covariation.” Geophysical Research Letters 44 (9): 4134–42. doi:10.1002/2017GL072885.

Kooijmans, Linda M. J., Kadmiel Maseyk, Ulli Seibt, Wu Sun, Timo Vesala, Ivan Mammarella, Pasi Kolari, et al. 2017. “Canopy Uptake Dominates Nighttime Carbonyl Sulfide Fluxes in a Boreal Forest.” Atmospheric Chemistry and Physics 17 (18): 11453–65. doi:10.5194/acp-17-11453-2017.

Korkiakoski, Mika, Juha-Pekka Tuovinen, Mika Aurela, Markku Koskinen, Kari Minkkinen, Paavo Ojanen, Timo Penttilä, Juuso Rainne, Tuomas Laurila, and Annalea Lohila. 2017. “Methane Exchange at the Peatland Forest Floor – Automatic Chamber System Exposes the Dynamics of Small Fluxes.” Biogeosciences 14 (7): 1947–67. doi:10.5194/bg-14-1947-2017.

Korrensalo, Aino, Pavel Alekseychik, Tomáš Hájek, Janne Rinne, Timo Vesala, Lauri Mehtätalo, Ivan Mammarella, and Eeva-Stiina Tuittila. 2017. “Species-Specific Temporal Variation in Photosynthesis as a Moderator of Peatland Carbon Sequestration.” Biogeosciences 14 (2): 257–69. doi:10.5194/bg-14-257-2017.

Kozii, Nataliia, Hjalmar Laudon, Mikaell Ottosson-Löfvenius, and Niles J. Hasselquist. 2017. “Increasing Water Losses from Snow Captured in the Canopy of Boreal Forests: A Case Study Using a 30 Year Data Set.” Hydrological Processes 31 (20): 3558–67. doi:10.1002/hyp.11277.

Krüger, Jan Paul, Franz Conen, Jens Leifeld, and Christine Alewell. 2017. “Palsa Uplift Identified by Stable Isotope Depth Profiles and Relation of Δ15N to C/N Ratio.” Permafrost and Periglacial Processes 28 (2): 485–92. doi:10.1002/ppp.1936.

Krupková, Lenka, Irena Marková, Kateřina Havránková, Radek Pokorný, Otmar Urban, Ladislav Šigut, Marian Pavelka, Emil Cienciala, and Michal V. Marek. 2017. “Comparison of Different Approaches of Radiation Use Efficiency of Biomass Formation Estimation in Mountain Norway Spruce.” Trees 31 (1): 325–37. doi:10.1007/s00468-016-1486-2.

Lansø, Anne Sofie, Lise Lotte Sørensen, Jesper H. Christensen, Anna Rutgersson, and Camilla Geels. 2017. “The Influence of Short-Term Variability in Surface Water on Modelled Air–sea Exchange.” Tellus B: Chemical and Physical Meteorology 69 (1): 1302670. doi:10.1080/16000889.2017.1302670.

Laudon, Hjalmar, Christopher Spence, Jim Buttle, Sean K. Carey, Jeffrey J. McDonnell, James P. McNamara, Chris Soulsby, and Doerthe Tetzlaff. 2017. “Save Northern High-Latitude Catchments.” Nature Geoscience 10 (5): 324–25. doi:10.1038/ngeo2947.

Laudon, Hjalmar, and Ryan A Sponseller. 2017. “How Landscape Organization and Scale Shape Catchment Hydrology and Biogeochemistry: Insights from a Long-Term Catchment Study.” Wiley Interdisciplinary Reviews: Water 5 (2). Wiley: e1265. doi:10.1002/wat2.1265.

Laufs, Sebastian, Mathieu Cazaunau, Patrick Stella, Ralf Kurtenbach, Pierre Cellier, Abdelwahid Mellouki, Benjamin Loubet, and Jörg Kleffmann. 2017. “Diurnal Fluxes of HONO above a Crop Rotation.” Atmospheric Chemistry and Physics 17 (11): 6907–23. doi:10.5194/acp-17-6907-2017.

Leach, J. A., W. Lidberg, L. Kuglerová, A. Peralta-Tapia, A. Ågren, and H. Laudon. 2017. “Evaluating Topography-Based Predictions of Shallow Lateral Groundwater Discharge Zones for a Boreal Lake-Stream System.” Water Resources Research 53 (7): 5420–37. doi:10.1002/2016WR019804.

Ledesma, José L J, Martyn N Futter, M Blackburn, Fredrik Lidman, Thomas Grabs, Ryan A Sponseller, Hjalmar Laudon, Kevin H Bishop, and Stephan J Köhler. 2017. “Towards an Improved Conceptualization of Riparian Zones in Boreal Forest Headwaters.” Ecosystems 21 (2). Springer Nature: 297–315. doi:10.1007/s10021-017-0149-5.

Ledesma, José L.J., and Martyn N. Futter. 2017. “Gridded Climate Data Products Are an Alternative to Instrumental Measurements as Inputs to Rainfall-Runoff Models.” Hydrological Processes 31 (18): 3283–93. doi:10.1002/hyp.11269.

Lefèvre, Nathalie, Francisco Jose da Silva Dias, Audálio Rebelo de Torres, Carlos Noriega, Moacyr Araujo, Antonio Carlos Leal de Castro, Carlos Rocha, Shan Jiang, and J. Severino P. Ibánhez. 2017. “A Source of CO2 to the Atmosphere throughout the Year in the Maranhense Continental Shelf (2°30’S, Brazil).” Continental Shelf Research 141 (June): 38–50. doi:10.1016/j.csr.2017.05.004.

Lefèvre, Nathalie, Manuel Flores Montes, Felipe L. Gaspar, Carlos Rocha, Shan Jiang, Moacyr C. De Araújo, and J. Severino Pino Ibánhez. 2017. “Net Heterotrophy in the Amazon Continental Shelf Changes Rapidly to a Sink of CO2 in the Outer Amazon Plume.” Frontiers in Marine Science 4 (September). doi:10.3389/fmars.2017.00278.

Levin, Ingeborg, Dominik Schmithüsen, and Alex Vermeulen. 2017. “Assessment of 222radon Progeny Loss in Long Tubing Based on Static Filter Measurements in the Laboratory and in the Field.” Atmospheric Measurement Techniques 10 (4): 1313–21. doi:10.5194/amt-10-1313-2017.

Li, Wei, Philippe Ciais, Shushi Peng, Chao Yue, Yilong Wang, Martin Thurner, Sassan S. Saatchi, et al. 2017. “Land-Use and Land-Cover Change Carbon Emissions between 1901 and 2012 Constrained by Biomass Observations.” Biogeosciences. doi:10.5194/bg-14-5053-2017.

Lidberg, William, Mats Nilsson, Tomas Lundmark, and Anneli M. Ågren. 2017. “Evaluating Preprocessing Methods of Digital Elevation Models for Hydrological Modelling.” Hydrological Processes 31 (26): 4660–68. doi:10.1002/hyp.11385.

Lidman, Fredrik, Åsa Boily, Hjalmar Laudon, and Stephan J. Köhler. 2017. “From Soil Water to Surface Water – How the Riparian Zone Controls Element Transport from a Boreal Forest to a Stream.” Biogeosciences 14 (12): 3001–14. doi:10.5194/bg-14-3001-2017.

Lidman, Johan, Micael Jonsson, Ryan M. Burrows, Mirco Bundschuh, and Ryan A. Sponseller. 2017. “Composition of Riparian Litter Input Regulates Organic Matter Decomposition: Implications for Headwater Stream Functioning in a Managed Forest Landscape.” Ecology and Evolution 7 (4): 1068–77. doi:10.1002/ece3.2726.

Lim, Hyungwoo, Ram Oren, Sune Linder, Fredrik From, Annika Nordin, Nils Fahlvik, Tomas Lundmark, and Torgny Näsholm. 2017. “Annual Climate Variation Modifies Nitrogen Induced Carbon Accumulation of Pinus Sylvestris Forests.” Ecological Applications 27 (6): 1838–51. doi:10.1002/eap.1571.

Lin, D, J Zhu, H Fu, Q Xie, and B Zhang. 2017. “A TSVD-Based Method for Forest Height Inversion from Single-Baseline PolInSAR Data.” Applied Sciences 7 (5): 435. doi:10.3390/app7050435.

Liu, Yu, Nicolas Gruber, and Dominik Brunner. 2017. “Spatiotemporal Patterns of the Fossil-Fuel CO&amp;Lt;Sub&amp;Gt;2&amp;Lt;/Sub&amp;Gt; Signal in Central Europe: Results from a High-Resolution Atmospheric Transport Model.” Atmospheric Chemistry and Physics 17 (22): 14145–69. doi:10.5194/acp-17-14145-2017.

Lognoul, Margaux, Nicolas Theodorakopoulos, Marie-Pierre Hiel, Donat Regaert, François Broux, Bernard Heinesch, Bernard Bodson, Micheline Vandenbol, and Marc Aubinet. 2017. “Impact of Tillage on Greenhouse Gas Emissions by an Agricultural Crop and Dynamics of N2O Fluxes: Insights from Automated Closed Chamber Measurements.” Soil and Tillage Research 167 (April): 80–89. doi:10.1016/j.still.2016.11.008.

Mahecha, Miguel D., Fabian Gans, Sebastian Sippel, Jonathan F. Donges, Thomas Kaminski, Stefan Metzger, Mirco Migliavacca, Dario Papale, Anja Rammig, and Jakob Zscheischler. 2017. “Detecting Impacts of Extreme Events with Ecological in Situ Monitoring Networks.” Biogeosciences 14 (18): 4255–77. doi:10.5194/bg-14-4255-2017.

Marková, Irena, Dalibor Janouš, and Ondřej Nezval. 2017. “Temperature Conditions at the Mountain Study Site of Bílý Kříž (the Beskids Mts.) during the Past 20 Years.” Beskydy 10 (1–2): 113–22. doi:10.11118/beskyd201710010113.

Mauder, Matthias, Sandra Genzel, Jin Fu, Ralf Kiese, Mohsen Soltani, Rainer Steinbrecher, Matthias Zeeman, Tirtha Banerjee, Frederik De Roo, and Harald Kunstmann. 2017. “Evaluation of Energy Balance Closure Adjustment Methods by Independent Evapotranspiration Estimates from Lysimeters and Hydrological Simulations.” Hydrological Processes 32 (1). Wiley: 39–50. doi:10.1002/hyp.11397.

Moffat, Antje M., and Christian Brümmer. 2017. “Improved Parameterization of the Commonly Used Exponential Equation for Calculating Soil-Atmosphere Exchange Fluxes from Closed-Chamber Measurements.” Agricultural and Forest Meteorology 240–241 (June): 18–25. doi:10.1016/j.agrformet.2017.03.005.

Mondav, Rhiannon, Carmody K. McCalley, Suzanne B. Hodgkins, Steve Frolking, Scott R. Saleska, Virginia I. Rich, Jeff P. Chanton, and Patrick M. Crill. 2017. “Microbial Network, Phylogenetic Diversity and Community Membership in the Active Layer across a Permafrost Thaw Gradient.” Environmental Microbiology 19 (8): 3201–18. doi:10.1111/1462-2920.13809.

Montzka, Carsten, Heye Bogena, Marek Zreda, Alessandra Monerris, Ross Morrison, Sekhar Muddu, and Harry Vereecken. 2017. “Validation of Spaceborne and Modelled Surface Soil Moisture Products with Cosmic-Ray Neutron Probes.” Remote Sensing 9 (2): 103. doi:10.3390/rs9020103.

Mozaffar, A., N. Schoon, A. Digrado, A. Bachy, P. Delaplace, P. du Jardin, M.-L. Fauconnier, M. Aubinet, B. Heinesch, and C. Amelynck. 2017. “Methanol Emissions from Maize: Ontogenetic Dependence to Varying Light Conditions and Guttation as an Additional Factor Constraining the Flux.” Atmospheric Environment 152 (March): 405–17. doi:10.1016/j.atmosenv.2016.12.041.

Musavi, Talie, Mirco Migliavacca, Markus Reichstein, Jens Kattge, Christian Wirth, T. Andrew Black, Ivan Janssens, et al. 2017. “Stand Age and Species Richness Dampen Interannual Variation of Ecosystem-Level Photosynthetic Capacity.” Nature Ecology & Evolution 1 (2): 0048. doi:10.1038/s41559-016-0048.

Musavi, Talie, Mirco Migliavacca, Markus Reichstein, Jens Kattge, Christian Wirth, T. Andrew Black, Ivan Janssens, et al. 2017. “Stand Age and Species Richness Dampen Interannual Variation of Ecosystem-Level Photosynthetic Capacity.” Nature Ecology & Evolution 1 (2): 0048. doi:10.1038/s41559-016-0048.

Napoly, Adrien, Aaron Boone, Patrick Samuelsson, Stefan Gollvik, Eric Martin, Roland Seferian, Dominique Carrer, Bertrand Decharme, and Lionel Jarlan. 2017. “The Interactions between Soil–biosphere–atmosphere (ISBA) Land Surface Model Multi-Energy Balance (MEB) Option in SURFEXv8 – Part 2: Introduction of a Litter Formulation and Model Evaluation for Local-Scale Forest Sites.” Geoscientific Model Development 10 (4): 1621–44. doi:10.5194/gmd-10-1621-2017.

Ney, Patrizia, and Alexander Graf. 2017. “High-Resolution Vertical Profile Measurements for Carbon Dioxide and Water Vapour Concentrations Within and Above Crop Canopies.” Boundary-Layer Meteorology 166 (3). Springer Nature: 449–73. doi:10.1007/s10546-017-0316-4.

Nezval, Ondřej, and Marian Pavelka. 2017. “Microclimate Changes in a Spruce Stand and Meadow Ecosystem during a Solar Eclipse in the Czech Republic.” Weather 72 (3): 67–72. doi:10.1002/wea.2802.

Nguyen, Vinh Xuan, Carlos P. Guerra Torres, Shilpi Yadav, Marian Pavelka, and Michal V. Marek. 2017. “Wind Characteristics of CzeCOS’s Ecosystem Station Bílý Kříž.” Beskydy 10 (1–2): 33–40. doi:10.11118/beskyd201710010033.

Nicolini, G., G. Fratini, V. Avilov, J. A. Kurbatova, I. Vasenev, and R. Valentini. 2017. “Performance of Eddy-Covariance Measurements in Fetch-Limited Applications.” Theoretical and Applied Climatology 127 (3–4): 829–40. doi:10.1007/s00704-015-1673-x.

Normand, Anna E., Adam N. Smith, Mark W. Clark, Joanna R. Long, and K. Ramesh Reddy. 2017. “Chemical Composition of Soil Organic Matter in a Subarctic Peatland: Influence of Shifting Vegetation Communities.” Soil Science Society of America Journal 81 (1): 41. doi:10.2136/sssaj2016.05.0148.

Oney, Brian, Nicolas Gruber, Stephan Henne, Markus Leuenberger, and Dominik Brunner. 2017. “A CO-Based Method to Determine the Regional Biospheric Signal in Atmospheric CO 2.” Tellus B: Chemical and Physical Meteorology 69 (1): 1353388. doi:10.1080/16000889.2017.1353388.

Oni, S . K., F. Mieres, M. N. Futter, and H. Laudon. 2017. “Soil Temperature Responses to Climate Change along a Gradient of Upland–riparian Transect in Boreal Forest.” Climatic Change 143 (1–2): 27–41. doi:10.1007/s10584-017-1977-1.

Osterwalder, Stefan, Kevin Bishop, Christine Alewell, Johannes Fritsche, Hjalmar Laudon, Staffan Åkerblom, and Mats B. Nilsson. 2017. “Mercury Evasion from a Boreal Peatland Shortens the Timeline for Recovery from Legacy Pollution.” Scientific Reports 7 (1): 16022. doi:10.1038/s41598-017-16141-7.

Palmqvist, Kristin, Oskar Franklin, and Torgny Näsholm. 2017. “Symbiosis Constraints: Strong Mycobiont Control Limits Nutrient Response in Lichens.” Ecology and Evolution 7 (18): 7420–33. doi:10.1002/ece3.3257.

Palonen, V, J Pumpanen, L Kulmala, I Levin, J Heinonsalo, and T Vesala. 2017. “Seasonal and Diurnal Variations in Atmospheric and Soil Air 14CO2 in a Boreal Scots Pine Forest.” Radiocarbon 60 (01). Cambridge University Press (CUP): 283–97. doi:10.1017/rdc.2017.95.

Parard, Gaëlle, Anna Rutgersson, Sindu Raj Parampil, and Anastase Alexandre Charantonis. 2017. “The Potential of Using Remote Sensing Data to Estimate Air-Sea CO2 Exchange in the Baltic Sea.” Earth System Dynamics 8 (4): 1093–1106. doi:10.5194/esd-8-1093-2017.

Pastorello, Gilberto, Dan Gunter, Housen Chu, Danielle Christianson, Carlo Trotta, Eleonora Canfora, Boris Faybishenko, et al. 2017. “Hunting Data Rogues at Scale: Data Quality Control for Observational Data in Research Infrastructures.” In 2017 IEEE 13th International Conference on E-Science (e-Science), 446–47. IEEE. doi:10.1109/eScience.2017.64.

Persson, Henrik J., and Johan E. S. Fransson. 2017. “Comparison between TanDEM-X- and ALS-Based Estimation of Aboveground Biomass and Tree Height in Boreal Forests.” Scandinavian Journal of Forest Research 32 (4): 306–19. doi:10.1080/02827581.2016.1220618.

Post, Hanna, Jasper A. Vrugt, Andrew Fox, Harry Vereecken, and Harrie-Jan Hendricks Franssen. 2017. “Estimation of Community Land Model Parameters for an Improved Assessment of Net Carbon Fluxes at European Sites.” Journal of Geophysical Research: Biogeosciences 122 (3): 661–89. doi:10.1002/2015JG003297.

Pulliainen, Jouni, Mika Aurela, Tuomas Laurila, Tuula Aalto, Matias Takala, Miia Salminen, Markku Kulmala, et al. 2017. “Early Snowmelt Significantly Enhances Boreal Springtime Carbon Uptake.” Proceedings of the National Academy of Sciences 114 (42): 11081–86. doi:10.1073/pnas.1707889114.

Raivonen, Maarit, Sampo Smolander, Leif Backman, Jouni Susiluoto, Tuula Aalto, Tiina Markkanen, Jarmo Mäkelä, et al. 2017. “HIMMELI v1.0: HelsinkI Model of MEthane BuiLd-up and EmIssion for Peatlands.” Geoscientific Model Development 10 (12): 4665–91. doi:10.5194/gmd-10-4665-2017.

Rodrigues, Abel, Stefan P.P. Vanbeveren, Mário Costa, and Reinhart Ceulemans. 2017. “Relationship between Soil Chemical Composition and Potential Fuel Quality of Biomass from Poplar Short Rotation Coppices in Portugal and Belgium.” Biomass and Bioenergy 105 (October): 66–72. doi:10.1016/j.biombioe.2017.06.021.

Salomón, Roberto L, Jean-Marc Limousin, Jean-Marc Ourcival, Jesús Rodríguez-Calcerrada, and Kathy Steppe. 2017. “Stem Hydraulic Capacitance Decreases with Drought Stress: Implications for Modelling Tree Hydraulics in the Mediterranean Oak Quercus Ilex.” Plant, Cell & Environment 40 (8): 1379–91. doi:10.1111/pce.12928.

Saunois, Marielle, Philippe Bousquet, Ben Poulter, Anna Peregon, Philippe Ciais, Josep G. Canadell, Edward J. Dlugokencky, et al. 2017. “Variability and Quasi-Decadal Changes in the Methane Budget over the Period 2000–2012.” Atmospheric Chemistry and Physics 17 (18): 11135–61. doi:10.5194/acp-17-11135-2017.

Schlund, Michael, Klaus Scipal, and Malcolm W.J. Davidson. 2017. “Forest Classification and Impact of BIOMASS Resolution on Forest Area and Aboveground Biomass Estimation.” International Journal of Applied Earth Observation and Geoinformation 56 (April): 65–76. doi:10.1016/j.jag.2016.12.001.

Schmithüsen, Dominik, Scott Chambers, Bernd Fischer, Stefan Gilge, Juha Hatakka, Victor Kazan, Rolf Neubert, et al. 2017. “A European-Wide 222radon and 222radon Progeny Comparison Study.” Atmospheric Measurement Techniques 10 (4): 1299–1312. doi:10.5194/amt-10-1299-2017.

Shi, Hao, Longhui Li, Derek Eamus, Alfredo Huete, James Cleverly, Xin Tian, Qiang Yu, et al. 2017. “Assessing the Ability of MODIS EVI to Estimate Terrestrial Ecosystem Gross Primary Production of Multiple Land Cover Types.” Ecological Indicators 72 (January): 153–64. doi:10.1016/j.ecolind.2016.08.022.

Soja, Maciej J., Jan I. H. Askne, and Lars M. H. Ulander. 2017. “Estimation of Boreal Forest Properties From TanDEM-X Data Using Inversion of the Interferometric Water Cloud Model.” IEEE Geoscience and Remote Sensing Letters 14 (7): 997–1001. doi:10.1109/LGRS.2017.2691355.

Sponseller, Ryan A, M Blackburn, M B Nilsson, and H Laudon. 2017. “Headwater Mires Constitute a Major Source of Nitrogen (N) to Surface Waters in the Boreal Landscape.” Ecosystems 21 (1). Springer Nature: 31–44. doi:10.1007/s10021-017-0133-0.

Super, I., H.A.C. Denier van der Gon, A.J.H. Visschedijk, M.M. Moerman, H. Chen, M.K. van der Molen, and W. Peters. 2017. “Interpreting Continuous In-Situ Observations of Carbon Dioxide and Carbon Monoxide in the Urban Port Area of Rotterdam.” Atmospheric Pollution Research 8 (1): 174–87. doi:10.1016/j.apr.2016.08.008.

Tetzlaff, Doerthe, Sean K. Carey, James P. McNamara, Hjalmar Laudon, and Chris Soulsby. 2017. “The Essential Value of Long-Term Experimental Data for Hydrology and Water Management.” Water Resources Research 53 (4): 2598–2604. doi:10.1002/2017WR020838.

Theodorakopoulos, Nicolas, Margaux Lognoul, Florine Degrune, François Broux, Donat Regaert, Céline Muys, Bernard Heinesch, Bernard Bodson, Marc Aubinet, and Micheline Vandenbol. 2017. “Increased Expression of Bacterial AmoA during an N 2 O Emission Peak in an Agricultural Field.” Agriculture, Ecosystems & Environment 236 (January): 212–20. doi:10.1016/j.agee.2016.12.002.

Thum, T., N. MacBean, P. Peylin, C. Bacour, D. Santaren, B. Longdoz, D. Loustau, and P. Ciais. 2017. “The Potential Benefit of Using Forest Biomass Data in Addition to Carbon and Water Flux Measurements to Constrain Ecosystem Model Parameters: Case Studies at Two Temperate Forest Sites.” Agricultural and Forest Meteorology 234–235 (March): 48–65. doi:10.1016/j.agrformet.2016.12.004.

Thum, Tea, Sönke Zaehle, Philipp Köhler, Tuula Aalto, Mika Aurela, Luis Guanter, Pasi Kolari, et al. 2017. “Modelling Sun-Induced Fluorescence and Photosynthesis with a Land Surface Model at Local and Regional Scales in Northern Europe.” Biogeosciences 14 (7): 1969–87. doi:10.5194/bg-14-1969-2017.

Tiwari, Tejshree, Fredrik Lidman, Hjalmar Laudon, William Lidberg, and Anneli M. Ågren. 2017. “GIS-Based Prediction of Stream Chemistry Using Landscape Composition, Wet Areas, and Hydrological Flow Pathways.” Journal of Geophysical Research: Biogeosciences 122 (1): 65–79. doi:10.1002/2016JG003399.

Tsuruta, Aki, Tuula Aalto, Leif Backman, Janne Hakkarainen, Ingrid T. van der Laan-Luijkx, Maarten C. Krol, Renato Spahni, et al. 2017. “Global Methane Emission Estimates for 2000–2012 from CarbonTracker Europe-CH&amp;Lt;Sub&amp;Gt;4&amp;Lt;/Sub&amp;Gt; v1.0.” Geoscientific Model Development 10 (3): 1261–89. doi:10.5194/gmd-10-1261-2017.

van der Laan-Luijkx, Ingrid T., Ivar R. van der Velde, Emma van der Veen, Aki Tsuruta, Karolina Stanislawska, Arne Babenhauserheide, Hui Fang Zhang, et al. 2017. “The CarbonTracker Data Assimilation Shell (CTDAS) v1.0: Implementation and Global Carbon Balance 2001–2015.” Geoscientific Model Development 10 (7): 2785–2800. doi:10.5194/gmd-10-2785-2017.

van Meeningen, Ylva, Min Wang, Tomas Karlsson, Ana Seifert, Guy Schurgers, Riikka Rinnan, and Thomas Holst. 2017. “Isoprenoid Emission Variation of Norway Spruce across a European Latitudinal Transect.” Atmospheric Environment 170 (December): 45–57. doi:10.1016/j.atmosenv.2017.09.045.

Vanbeveren, Stefan P.P., Raffaele Spinelli, Mark Eisenbies, Janine Schweier, Blas Mola-Yudego, Natascia Magagnotti, Mauricio Acuna, Ioannis Dimitriou, and Reinhart Ceulemans. 2017. “Mechanised Harvesting of Short-Rotation Coppices.” Renewable and Sustainable Energy Reviews 76 (September): 90–104. doi:10.1016/j.rser.2017.02.059.

Ventrillard, Irène, Irène Xueref-Remy, Martina Schmidt, Camille Yver Kwok, Xavier Faïn, and Daniele Romanini. 2017. “Comparison of Optical-Feedback Cavity-Enhanced Absorption Spectroscopy and Gas Chromatography for Ground-Based and Airborne Measurements of Atmospheric CO Concentration.” Atmospheric Measurement Techniques 10 (5): 1803–12. doi:10.5194/amt-10-1803-2017.

Verryckt, Lore T., Maarten Op de Beeck, Johan Neirynck, Bert Gielen, Marilyn Roland, and Ivan A. Janssens. 2017. “No Impact of Tropospheric Ozone on the Gross Primary Productivity of a Belgian Pine Forest.” Biogeosciences 14 (7): 1839–55. doi:10.5194/bg-14-1839-2017.

Vitali, Valentina, Ulf Büntgen, and Jürgen Bauhus. 2017. “Silver Fir and Douglas Fir Are More Tolerant to Extreme Droughts than Norway Spruce in South-Western Germany.” Global Change Biology 23 (12): 5108–19. doi:10.1111/gcb.13774.

Wällstedt, Teresia, Louise Björkvald, Hjalmar Laudon, Hans Borg, and Carl-Magnus Mörth. 2017. “Landscape Control on the Hydrogeochemistry of As, Co and Pb in a Boreal Stream Network.” Geochimica et Cosmochimica Acta 211 (August): 194–213. doi:10.1016/j.gca.2016.08.030.

Wang, Zhiting, Thorsten Warneke, Nicholas M. Deutscher, Justus Notholt, Ute Karstens, Marielle Saunois, Matthias Schneider, et al. 2017. “Contributions of the Troposphere and Stratosphere to CH4 Model Biases.” Atmospheric Chemistry and Physics 17 (21): 13283–95. doi:10.5194/acp-17-13283-2017.

Whitaker, Jeanette, John L Field, Carl J Bernacchi, Carlos E P Cerri, Reinhart Ceulemans, Christian A Davies, Evan H DeLucia, et al. 2017. “Consensus, Uncertainties and Challenges for Perennial Bioenergy Crops and Land Use.” GCB Bioenergy 10 (3). Wiley: 150–64. doi:10.1111/gcbb.12488.

Wilson, Rachel M., Malak M. Tfaily, Virginia I. Rich, Jason K. Keller, Scott D. Bridgham, Cassandra Medvedeff Zalman, Laura Meredith, et al. 2017. “Hydrogenation of Organic Matter as a Terminal Electron Sink Sustains High CO2:CH4 Production Ratios during Anaerobic Decomposition.” Organic Geochemistry 112 (October): 22–32. doi:10.1016/j.orggeochem.2017.06.011.

Wolf, B., C. Chwala, B. Fersch, J. Garvelmann, W. Junkermann, M. J. Zeeman, A. Angerer, et al. 2017. “The SCALEX Campaign: Scale-Crossing Land Surface and Boundary Layer Processes in the TERENO-PreAlpine Observatory.” Bulletin of the American Meteorological Society 98 (6): 1217–34. doi:10.1175/BAMS-D-15-00277.1.

Wu, Lichuan, Anna Rutgersson, and Erik Nilsson. 2017. “Atmospheric Boundary Layer Turbulence Closure Scheme for Wind-Following Swell Conditions.” Journal of the Atmospheric Sciences 74 (7): 2363–82. doi:10.1175/JAS-D-16-0308.1.

Wu, Lichuan, David Sproson, Erik Sahlée, and Anna Rutgersson. 2017. “Surface Wave Impact When Simulating Midlatitude Storm Development.” Journal of Atmospheric and Oceanic Technology 34 (1): 233–48. doi:10.1175/JTECH-D-16-0070.1.

Xie, Qinghua, Jianjun Zhu, Changcheng Wang, Haiqiang Fu, Juan M. Lopez-Sanchez, and J. David Ballester-Berman. 2017. “A Modified Dual-Baseline PolInSAR Method for Forest Height Estimation.” Remote Sensing 9 (8): 819. doi:10.3390/rs9080819.

Yao, Yunjun, Shunlin Liang, Xianglan Li, Jiquan Chen, Shaomin Liu, Kun Jia, Xiaotong Zhang, et al. 2017. “Improving Global Terrestrial Evapotranspiration Estimation Using Support Vector Machine by Integrating Three Process-Based Algorithms.” Agricultural and Forest Meteorology 242 (August): 55–74. doi:10.1016/j.agrformet.2017.04.011.

Yao, Yunjun, Shunlin Liang, Xianglan Li, Yuhu Zhang, Jiquan Chen, Kun Jia, Xiaotong Zhang, et al. 2017. “Estimation of High-Resolution Terrestrial Evapotranspiration from Landsat Data Using a Simple Taylor Skill Fusion Method.” Journal of Hydrology 553 (October): 508–26. doi:10.1016/j.jhydrol.2017.08.013.

Yuan, Ye, Ludwig Ries, Hannes Petermeier, Martin Steinbacher, Angel J. Gómez-Peláez, Markus C. Leuenberger, Marcus Schumacher, et al. 2017. “Adaptive Baseline Finder, a Statistical Data Selection Strategy to Identify Atmospheric CO&amp;Lt;Sub&amp;Gt;2&amp;Lt;/Sub&amp;Gt; Baseline Levels and Its Application to European Elevated Mountain Stations.” Atmospheric Measurement Techniques Discussions, September, 1–27. doi:10.5194/amt-2017-316.

Zhang, Zhiyuan, Renduo Zhang, Alessandro Cescatti, Georg Wohlfahrt, Nina Buchmann, Juan Zhu, Guanhong Chen, et al. 2017. “Effect of Climate Warming on the Annual Terrestrial Net Ecosystem CO2 Exchange Globally in the Boreal and Temperate Regions.” Scientific Reports 7 (1): 3108. doi:10.1038/s41598-017-03386-5.

Zhao, Junbin, Matthias Peichl, and Mats B. Nilsson. 2017. “Long-Term Enhanced Winter Soil Frost Alters Growing Season CO 2 Fluxes through Its Impact on Vegetation Development in a Boreal Peatland.” Global Change Biology 23 (8): 3139–53. doi:10.1111/gcb.13621.

Zscheischler, Jakob, Miguel D. Mahecha, Valerio Avitabile, Leonardo Calle, Nuno Carvalhais, Philippe Ciais, Fabian Gans, et al. 2017. “Reviews and Syntheses: An Empirical Spatiotemporal Description of the Global Surface–atmosphere Carbon Fluxes: Opportunities and Data Limitations.” Biogeosciences 14 (15): 3685–3703. doi:10.5194/bg-14-3685-2017.

# 2016

Ago, Expedit Evariste, Euloge Kossi Agbossou, Jean-Martial Cohard, Sylvie Galle, and Marc Aubinet. 2016. “Response of CO2 Fluxes and Productivity to Water Availability in Two Contrasting Ecosystems in Northern Benin (West Africa).” Annals of Forest Science 73 (2): 483–500. doi:10.1007/s13595-016-0542-9.

Alden, Caroline B., John B. Miller, Luciana V. Gatti, Manuel M. Gloor, Kaiyu Guan, Anna M. Michalak, Ingrid T. van der Laan-Luijkx, et al. 2016. “Regional Atmospheric CO2 Inversion Reveals Seasonal and Geographic Differences in Amazon Net Biome Exchange.” Global Change Biology 22 (10): 3427–43. doi:10.1111/gcb.13305.

Andersson, Andreas, Anna Rutgersson, and Erik Sahlée. 2016. “Using Eddy Covariance to Estimate Air–sea Gas Transfer Velocity for Oxygen.” Journal of Marine Systems 159 (July): 67–75. doi:10.1016/j.jmarsys.2016.02.008.

Aubinet, Marc, Lilian Joly, Denis Loustau, Anne De Ligne, Henri Chopin, Julien Cousin, Nicolas Chauvin, Thomas Decarpenterie, and Patrick Gross. 2016. “Dimensioning IRGA Gas Sampling Systems: Laboratory and Field Experiments.” Atmospheric Measurement Techniques 9 (3): 1361–67. doi:10.5194/amt-9-1361-2016.

Bachy, Aurélie, Marc Aubinet, Niels Schoon, Crist Amelynck, Bernard Bodson, Christine Moureaux, and Bernard Heinesch. 2016. “Are BVOC Exchanges in Agricultural Ecosystems Overestimated? Insights from Fluxes Measured in a Maize Field over a Whole Growing Season.” Atmospheric Chemistry and Physics 16 (8): 5343–56. doi:10.5194/acp-16-5343-2016.

Bakker, Dorothee C. E., Benjamin Pfeil, Camilla S. Landa, Nicolas Metzl, Kevin M. O&amp;apos;Brien, Are Olsen, Karl Smith, et al. 2016. “A Multi-Decade Record of High-Quality FCO2 Data in Version 3 of the Surface Ocean CO2 Atlas (SOCAT).” Earth System Science Data 8 (2): 383–413. doi:10.5194/essd-8-383-2016.

Balzarolo, M., S. Vicca, A.L. Nguy-Robertson, D. Bonal, J.A. Elbers, Y.H. Fu, T. Grünwald, et al. 2016. “Matching the Phenology of Net Ecosystem Exchange and Vegetation Indices Estimated with MODIS and FLUXNET In-Situ Observations.” Remote Sensing of Environment 174 (March): 290–300. doi:10.1016/j.rse.2015.12.017.

Batenburg, A.M., M.E. Popa, A.T. Vermeulen, W.C.M. van den Bulk, P.A.C. Jongejan, R.E. Fisher, D. Lowry, E.G. Nisbet, and T. Röckmann. 2016. “Observations of Molecular Hydrogen Mixing Ratio and Stable Isotopic Composition at the Cabauw Tall Tower in the Netherlands.” Atmospheric Environment 147 (December): 98–108. doi:10.1016/j.atmosenv.2016.09.058.

Beaudoin, N, N Gallois, P Viennot, C Le Bas, T Puech, C Schott, S Buis, and B Mary. 2016. “Evaluation of a Spatialized Agronomic Model in Predicting Yield and N Leaching at the Scale of the Seine-Normandie Basin.” Environmental Science and Pollution Research 25 (24). Springer Nature: 23529–58. doi:10.1007/s11356-016-7478-3.

Becker, Meike, Nils Andersen, Helmut Erlenkeuser, Matthew P. Humphreys, Toste Tanhua, and Arne Körtzinger. 2016. “An Internally Consistent Dataset of &amp;Lt;I&amp;Gt;Δ&amp;Lt;/I&amp;Gt;&amp;Lt;Sup&amp;Gt;13&amp;Lt;/Sup&amp;Gt;C-DIC in the North Atlantic Ocean – NAC13v1.” Earth System Science Data 8 (2): 559–70. doi:10.5194/essd-8-559-2016.

Belviso, Sauveur, Ilja Marco Reiter, Benjamin Loubet, Valérie Gros, Juliette Lathière, David Montagne, Marc Delmotte, et al. 2016. “A Top-down Approach of Surface Carbonyl Sulfide Exchange by a Mediterranean Oak Forest Ecosystem in Southern France.” Atmospheric Chemistry and Physics 16 (23): 14909–23. doi:10.5194/acp-16-14909-2016.

Berhanu, Tesfaye Ayalneh, Ece Satar, Rudiger Schanda, Peter Nyfeler, Hanspeter Moret, Dominik Brunner, Brian Oney, and Markus Leuenberger. 2016. “Measurements of Greenhouse Gases at Beromünster Tall-Tower Station in Switzerland.” Atmospheric Measurement Techniques 9 (6): 2603–14. doi:10.5194/amt-9-2603-2016.

Bogena, Heye Reemt. 2016. “TERENO: German Network of Terrestrial Environmental Observatories.” Journal of Large-Scale Research Facilities JLSRF 2 (February): A52. doi:10.17815/jlsrf-2-98.

Bozhinova, D, S W L Palstra, M K van der Molen, M C Krol, H A J Meijer, and W Peters. 2016. “Three Years of Δ14CO2 Observations from Maize Leaves in the Netherlands and Western Europe.” Radiocarbon 58 (03): 459–78. doi:10.1017/RDC.2016.20.

Brilli, Federico, Beniamino Gioli, Silvano Fares, Zenone Terenzio, Donatella Zona, Bert Gielen, Francesco Loreto, Ivan A. Janssens, and Reinhart Ceulemans. 2016. “Rapid Leaf Development Drives the Seasonal Pattern of Volatile Organic Compound (VOC) Fluxes in a ‘Coppiced’ Bioenergy Poplar Plantation.” Plant, Cell & Environment 39 (3): 539–55. doi:10.1111/pce.12638.

Campioli, M., Y. Malhi, S. Vicca, S. Luyssaert, D. Papale, J. Peñuelas, M. Reichstein, M. Migliavacca, M. A. Arain, and I. A. Janssens. 2016. “Evaluating the Convergence between Eddy-Covariance and Biometric Methods for Assessing Carbon Budgets of Forests.” Nature Communications 7 (December): 13717. doi:10.1038/ncomms13717.

Chambers, Scott D., Alastair G. Williams, Franz Conen, Alan D. Griffiths, Stefan Reimann, Martin Steinbacher, Paul B. Krummel, et al. 2016. “Towards a Universal ‘Baseline’ Characterisation of Air Masses for High- and Low-Altitude Observing Stations Using Radon-222.” Aerosol and Air Quality Research 16 (3): 885–99. doi:10.4209/aaqr.2015.06.0391.

Chen, Yiying, James Ryder, Vladislav Bastrikov, Matthew J. McGrath, Kim Naudts, Juliane Otto, Catherine Ottlé, et al. 2016. “Evaluating the Performance of Land Surface Model ORCHIDEE-CAN v1.0 on Water and Energy Flux Estimation with a Single- and Multi-Layer Energy Budget Scheme.” Geoscientific Model Development 9 (9): 2951–72. doi:10.5194/gmd-9-2951-2016.

Chiesi, Marta, Gherardo Chirici, Marco Marchetti, Hubert Hasenauer, Adam Moreno, Alexander Knohl, Giorgio Matteucci, et al. 2016. “Testing the Applicability of BIOME-BGC to Simulate Beech Gross Primary Production in Europe Using a New Continental Weather Dataset.” Annals of Forest Science 73 (3): 713–27. doi:10.1007/s13595-016-0560-7.

Chirici, Gherardo, Marta Chiesi, Piermaria Corona, Riccardo Salvati, Dario Papale, Luca Fibbi, Costantino Sirca, et al. 2016. “Estimating Daily Forest Carbon Fluxes Using a Combination of Ground and Remotely Sensed Data.” Journal of Geophysical Research: Biogeosciences 121 (2): 266–79. doi:10.1002/2015JG003019.

Collalti, A., S. Marconi, A. Ibrom, C. Trotta, A. Anav, E. D&amp;apos;Andrea, G. Matteucci, et al. 2016. “Validation of 3D-CMCC Forest Ecosystem Model (v.5.1) against Eddy Covariance Data for 10 European Forest Sites.” Geoscientific Model Development 9 (2): 479–504. doi:10.5194/gmd-9-479-2016.

Combe, Marie, Jordi Vilà-Guerau de Arellano, Huug G. Ouwersloot, and Wouter Peters. 2016. “Plant Water-Stress Parameterization Determines the Strength of Land–atmosphere Coupling.” Agricultural and Forest Meteorology 217 (February): 61–73. doi:10.1016/j.agrformet.2015.11.006.

Cowan, N.J., P.E. Levy, D. Famulari, M. Anderson, J. Drewer, M. Carozzi, D.S. Reay, and U.M. Skiba. 2016. “The Influence of Tillage on N2O Fluxes from an Intensively Managed Grazed Grassland in Scotland.” Biogeosciences Discussions, January, 1–22. doi:10.5194/bg-2015-643.

Creamer, R.E., D. Stone, P. Berry, and I. Kuiper. 2016. “Measuring Respiration Profiles of Soil Microbial Communities across Europe Using MicroRespTM Method.” Applied Soil Ecology 97 (January): 36–43. doi:10.1016/j.apsoil.2015.08.004.

Darenova, Eva, Petr Holub, Lenka Krupkova, and Marian Pavelka. 2016. “Effect of Repeated Spring Drought and Summer Heavy Rain on Managed Grassland Biomass Production and CO 2 Efflux.” Journal of Plant Ecology, June, rtw058. doi:10.1093/jpe/rtw058.

Feng, L., P. I. Palmer, R. J. Parker, N. M. Deutscher, D. G. Feist, R. Kivi, I. Morino, and R. Sussmann. 2016. “Estimates of European Uptake of CO2 Inferred from GOSAT XCO2 Retrievals: Sensitivity to Measurement Bias inside and Outside Europe.” Atmospheric Chemistry and Physics 16 (3): 1289–1302. doi:10.5194/acp-16-1289-2016.

Fiedler, Björn, Damian S. Grundle, Florian Schütte, Johannes Karstensen, Carolin R. Löscher, Helena Hauss, Hannes Wagner, et al. 2016. “Oxygen Utilization and Downward Carbon Flux in an Oxygen-Depleted Eddy in the Eastern Tropical North Atlantic.” Biogeosciences 13 (19): 5633–47. doi:10.5194/bg-13-5633-2016.

Forkel, Matthias, Nuno Carvalhais, Christian Rödenbeck, Ralph Keeling, Martin Heimann, Kirsten Thonicke, Sönke Zaehle, and Markus Reichstein. 2016. “Enhanced Seasonal CO2 Exchange Caused by Amplified Plant Productivity in Northern Ecosystems.” Science 351 (6274). doi:10.1126/science.aac4971.

Francisco, Romeu, Dorothy Stone, Rachel E. Creamer, José Paulo Sousa, and Paula Vasconcelos Morais. 2016. “European Scale Analysis of Phospholipid Fatty Acid Composition of Soils to Establish Operating Ranges.” Applied Soil Ecology 97 (January): 49–60. doi:10.1016/j.apsoil.2015.09.001.

Gebauer, Roman, Stefan P.P. Vanbeveren, Daniel Volařík, Roman Plichta, and Reinhart Ceulemans. 2016. “Petiole and Leaf Traits of Poplar in Relation to Parentage and Biomass Yield.” Forest Ecology and Management 362 (February): 1–9. doi:10.1016/j.foreco.2015.11.036.

Görres, Carolyn-Monika, Claudia Kammann, and Reinhart Ceulemans. 2016. “Automation of Soil Flux Chamber Measurements: Potentials and Pitfalls.” Biogeosciences 13 (6): 1949–66. doi:10.5194/bg-13-1949-2016.

Gourlez de la Motte, Louis, Elisabeth Jérôme, Ossénatou Mamadou, Yves Beckers, Bernard Bodson, Bernard Heinesch, and Marc Aubinet. 2016. “Carbon Balance of an Intensively Grazed Permanent Grassland in Southern Belgium.” Agricultural and Forest Meteorology 228–229 (November): 370–83. doi:10.1016/j.agrformet.2016.06.009.

Griffiths, Robert I., Bruce C. Thomson, Pierre Plassart, Hyun S. Gweon, Dorothy Stone, Rachael E. Creamer, Philippe Lemanceau, and Mark J. Bailey. 2016. “Mapping and Validating Predictions of Soil Bacterial Biodiversity Using European and National Scale Datasets.” Applied Soil Ecology 97 (January): 61–68. doi:10.1016/j.apsoil.2015.06.018.

Gundale, Michael J., Marie-Charlotte Nilsson, Nathalie Pluchon, and David A. Wardle. 2016. “The Effect of Biochar Management on Soil and Plant Community Properties in a Boreal Forest.” GCB Bioenergy 8 (4): 777–89. doi:10.1111/gcbb.12274.

Hasper, Thomas B., Göran Wallin, Shubhangi Lamba, Marianne Hall, Fernando Jaramillo, Hjalmar Laudon, Sune Linder, et al. 2016. “Water Use by Swedish Boreal Forests in a Changing Climate.” Edited by Mark Tjoelker. Functional Ecology 30 (5): 690–99. doi:10.1111/1365-2435.12546.

Hazan, Lynn, Jérôme Tarniewicz, Michel Ramonet, Olivier Laurent, and Amara Abbaris. 2016. “Automatic Processing of Atmospheric CO2 and CH4 Mole Fractions at the ICOS Atmosphere Thematic Centre.” Atmospheric Measurement Techniques 9 (9): 4719–36. doi:10.5194/amt-9-4719-2016.

Hellström, Margareta, Alex Vermeulen, Oleg Mirzov, Simone Sabbatini, Domenico Vitale, Dario Papale, and Truls Johannessen. 2016. “Near Real Time Data Processing In ICOS RI.” In Proceedings of 2nd International Workshop on Interoperable Infrastructures for Interdisciplinary Big Data Sciences (IT4RIs 16) in the Context of IEEE Real-Time System Symposium (RTSS). doi:10.5281/zenodo.204817.

Hendriksen, N.B., R.E. Creamer, D. Stone, and A. Winding. 2016. “Soil Exo-Enzyme Activities across Europe—The Influence of Climate, Land-Use and Soil Properties.” Applied Soil Ecology 97 (January): 44–48. doi:10.1016/j.apsoil.2015.08.012.

Henne, Stephan, Dominik Brunner, Brian Oney, Markus Leuenberger, Werner Eugster, Ines Bamberger, Frank Meinhardt, Martin Steinbacher, and Lukas Emmenegger. 2016. “Validation of the Swiss Methane Emission Inventory by Atmospheric Observations and Inverse Modelling.” Atmospheric Chemistry and Physics 16 (6): 3683–3710. doi:10.5194/acp-16-3683-2016.

Hingerl, Luitpold, Harald Kunstmann, Sven Wagner, Matthias Mauder, Jan Bliefernicht, and Riccardo Rigon. 2016. “Spatio-Temporal Variability of Water and Energy Fluxes - a Case Study for a Mesoscale Catchment in Pre-Alpine Environment.” Hydrological Processes 30 (21): 3804–23. doi:10.1002/hyp.10893.

Hurkuck, Miriam, Christian Brümmer, and Werner L. Kutsch. 2016. “Near-Neutral Carbon Dioxide Balance at a Seminatural, Temperate Bog Ecosystem.” Journal of Geophysical Research: Biogeosciences 121 (2): 370–84. doi:10.1002/2015JG003195.

Inoue, M., I. Morino, O. Uchino, T. Nakatsuru, Y. Yoshida, T. Yokota, D. Wunch, et al. 2016. “Bias Corrections of GOSAT SWIR XCO2 and XCH4 with TCCON Data and Their Evaluation Using Aircraft Measurement Data.” Atmospheric Measurement Techniques Discussions, January, 1–49. doi:10.5194/amt-2015-366.

Jiang, Fei, Jing M. Chen, Lingxi Zhou, Weimin Ju, Huifang Zhang, Toshinobu Machida, Philippe Ciais, et al. 2016. “A Comprehensive Estimate of Recent Carbon Sinks in China Using Both Top-down and Bottom-up Approaches.” Scientific Reports 6 (1): 22130. doi:10.1038/srep22130.

Kiendler-Scharr, A., A. A. Mensah, E. Friese, D. Topping, E. Nemitz, A. S. H. Prevot, M. Äijälä, et al. 2016. “Ubiquity of Organic Nitrates from Nighttime Chemistry in the European Submicron Aerosol.” Geophysical Research Letters 43 (14): 7735–44. doi:10.1002/2016GL069239.

Koffi, E N, P Bergamaschi, U Karstens, M Krol, A Segers, M Schmidt, I Levin, et al. 2016. “Evaluation of the Boundary Layer Dynamics of the TM5 Model over Europe.” Geoscientific Model Development 9 (9). Copernicus Publications: 3137–60. doi:10.5194/gmd-9-3137-2016.

Kooijmans, Linda M. J., Nelly A. M. Uitslag, Mark S. Zahniser, David D. Nelson, Stephen A. Montzka, and Huilin Chen. 2016. “Continuous and High-Precision Atmospheric Concentration Measurements of COS, CO2;, CO and H2O Using a Quantum Cascade Laser Spectrometer (QCLS).” Atmospheric Measurement Techniques 9 (11): 5293–5314. doi:10.5194/amt-9-5293-2016.

Kuglerová, Lenka, Mats Dynesius, Hjalmar Laudon, and Roland Jansson. 2016. “Relationships Between Plant Assemblages and Water Flow Across a Boreal Forest Landscape: A Comparison of Liverworts, Mosses, and Vascular Plants.” Ecosystems 19 (1): 170–84. doi:10.1007/s10021-015-9927-0.

Le Quéré, Corinne, Robbie M. Andrew, Josep G. Canadell, Stephen Sitch, Jan Ivar Korsbakken, Glen P. Peters, Andrew C. Manning, et al. 2016. “Global Carbon Budget 2016.” Earth System Science Data 8 (2): 605–49. doi:10.5194/essd-8-605-2016.

Logue, Jürg B, Colin A Stedmon, Anne M Kellerman, Nikoline J Nielsen, Anders F Andersson, Hjalmar Laudon, Eva S Lindström, and Emma S Kritzberg. 2016. “Experimental Insights into the Importance of Aquatic Bacterial Community Composition to the Degradation of Dissolved Organic Matter.” The ISME Journal 10 (3): 533–45. doi:10.1038/ismej.2015.131.

Mamadou, Ossénatou, Louis Gourlez de la Motte, Anne De Ligne, Bernard Heinesch, and Marc Aubinet. 2016. “Sensitivity of the Annual Net Ecosystem Exchange to the Cospectral Model Used for High Frequency Loss Corrections at a Grazed Grassland Site.” Agricultural and Forest Meteorology 228–229 (November): 360–69. doi:10.1016/j.agrformet.2016.06.008.

Mammarella, I., O. Peltola, A. Nordbo, L. Järvi, and Ü. Rannik. 2016. “EddyUH: An Advanced Software Package for Eddy Covariance Flux Calculation for a Wide Range of Instrumentation and Ecosystems.” Atmospheric Measurement Techniques Discussions, January, 1–33. doi:10.5194/amt-2015-323.

Mammarella, Ivan, Olli Peltola, Annika Nordbo, and Leena Järvi. 2016. “Quantifying the Uncertainty of Eddy Covariance Fluxes Due to the Use of Different Software Packages and Combinations of Processing Steps in Two Contrasting Ecosystems.” Atmospheric Measurement Techniques 9 (10). doi:10.5194/amt-9-4915-2016.

Molina-Herrera, Saúl, Edwin Haas, Steffen Klatt, David Kraus, Jürgen Augustin, Vincenzo Magliulo, Tiphaine Tallec, et al. 2016. “A Modeling Study on Mitigation of N 2 O Emissions and NO 3 Leaching at Different Agricultural Sites across Europe Using LandscapeDNDC.” Science of The Total Environment 553 (May): 128–40. doi:10.1016/j.scitotenv.2015.12.099.

Müller, D., H. W. Bange, T. Warneke, T. Rixen, M. Müller, A. Mujahid, and J. Notholt. 2016. “Nitrous Oxide and Methane in Two Tropical Estuaries in a Peat-Dominated Region of North-Western Borneo.” Biogeosciences Discussions, January, 1–28. doi:10.5194/bg-2016-4.

Müller, D., T. Warneke, T. Rixen, M. Müller, A. Mujahid, H. W. Bange, and J. Notholt. 2016. “Fate of Terrestrial Organic Carbon and Associated CO2 and CO Emissions from Two Southeast Asian Estuaries.” Biogeosciences 13 (3): 691–705. doi:10.5194/bg-13-691-2016.

Musavi, Talie, Mirco Migliavacca, Martine Janet van de Weg, Jens Kattge, Georg Wohlfahrt, Peter M. van Bodegom, Markus Reichstein, et al. 2016. “Potential and Limitations of Inferring Ecosystem Photosynthetic Capacity from Leaf Functional Traits.” Ecology and Evolution 6 (20). doi:10.1002/ece3.2479.

Nęcki, Jarosław M., Michał Gałkowski, Łukasz Chmura, Christoph Gerbig, Mirosław Zimnoch, Damian Zięba, Jakub Bartyzel, Wojciech Wołkowicz, and Kazimierz Różański. 2016. “Regional Representativeness of CH4 and N2O Mixing Ratio Measurements at High-Altitude Mountain Station Kasprowy Wierch, Southern Poland.” Aerosol and Air Quality Research 16 (3): 568–80. doi:10.4209/aaqr.2015.05.0357.

Obersteiner, F., H. Bönisch, and A. Engel. 2016. “An Automated Gas Chromatography Time-of-Flight Mass Spectrometry Instrument for the Quantitative Analysis of Halocarbons in Air.” Atmospheric Measurement Techniques 9 (1): 179–94. doi:10.5194/amt-9-179-2016.

Pihlatie, M., Ü. Rannik, S. Haapanala, O. Peltola, N. Shurpali, P. J. Martikainen, S. Lind, et al. 2016. “Seasonal and Diurnal Variation in CO Fluxes from an Agricultural Bioenergy Crop.” Biogeosciences Discussions, January, 1–27. doi:10.5194/bg-2015-622.

Qu, Wei, Heye R. Bogena, Johan A. Huisman, Marius Schmidt, Ralf Kunkel, Ansgar Weuthen, Henning Schiedung, Bernd Schilling, Jürgen Sorg, and Harry Vereecken. 2016. “The Integrated Water Balance and Soil Data Set of the Rollesbroich Hydrological Observatory.” Earth System Science Data 8 (2): 517–29. doi:10.5194/essd-8-517-2016.

Rannik, Üllar, Olli Peltola, and Ivan Mammarella. 2016. “Random Uncertainties of Flux Measurements by the Eddy Covariance Technique.” Atmospheric Measurement Techniques Discussions, February, 1–31. doi:10.5194/amt-2016-31.

Różański, Kazimierz, Łukasz Chmura, Michał Gałkowski, Jarosław Nęcki, Mirosław Zimnoch, Jakub Bartyzel, and Simon O’Doherty. 2016. “Monitoring of Greenhouse Gases in the Atmosphere – A Polish Perspective.” Papers on Global Change IGBP 23 (1). doi:10.1515/igbp-2016-0009.

Rutgers, Michiel, Marja Wouterse, Sytske M. Drost, Anton M. Breure, Christian Mulder, Dorothy Stone, Rachel E. Creamer, Anne Winding, and Jaap Bloem. 2016. “Monitoring Soil Bacteria with Community-Level Physiological Profiles Using BiologTM ECO-Plates in the Netherlands and Europe.” Applied Soil Ecology 97 (January): 23–35. doi:10.1016/j.apsoil.2015.06.007.

Sabbatini, S., N. Arriga, T. Bertolini, S. Castaldi, T. Chiti, C. Consalvo, S. Njakou Djomo, B. Gioli, G. Matteucci, and D. Papale. 2016. “Greenhouse Gas Balance of Cropland Conversion to Bioenergy Poplar Short-Rotation Coppice.” Biogeosciences 13 (1): 95–113. doi:10.5194/bg-13-95-2016.

Satar, Ece, Tesfaye A. Berhanu, Dominik Brunner, Stephan Henne, and Markus Leuenberger. 2016. “Continuous CO2/CH4/CO Measurements (2012–2014) at Beromünster Tall Tower Station in Switzerland.” Biogeosciences 13 (9): 2623–35. doi:10.5194/bg-13-2623-2016.

Schaefer, H., S. E. M. Fletcher, C. Veidt, K. R. Lassey, G. W. Brailsford, T. M. Bromley, E. J. Dlugokencky, et al. 2016. “A 21st-Century Shift from Fossil-Fuel to Biogenic Methane Emissions Indicated by 13CH4.” Science 352 (6281): 80–84. doi:10.1126/science.aad2705.

Schibig, Michael F., Emmanuel Mahieu, Stephan Henne, Bernard Lejeune, and Markus C. Leuenberger. 2016. “Intercomparison of in Situ NDIR and Column FTIR Measurements of CO2 at Jungfraujoch.” Atmospheric Chemistry and Physics 16 (15): 9935–49. doi:10.5194/acp-16-9935-2016.

Serrano-Ortiz, P., E. P. Sánchez-Cañete, F. J. Olmo, S. Metzger, O. Pérez-Priego, A. Carrara, L. Alados-Arboledas, and A. S. Kowalski. 2016. “Surface-Parallel Sensor Orientation for Assessing Energy Balance Components on Mountain Slopes.” Boundary-Layer Meteorology 158 (3): 489–99. doi:10.1007/s10546-015-0099-4.

Simmonds, P. G., M. Rigby, A. J. Manning, M. F. Lunt, S. O&apos;Doherty, A. McCulloch, P. J. Fraser, et al. 2016. “Global and Regional Emissions Estimates of 1,1-Difluoroethane (HFC-152a, CH3CHF2) from in Situ and Air Archive Observations.” Atmospheric Chemistry and Physics 16 (1): 365–82. doi:10.5194/acp-16-365-2016.

Soubie, R., B. Heinesch, A. Granier, M. Aubinet, and C. Vincke. 2016. “Evapotranspiration Assessment of a Mixed Temperate Forest by Four Methods: Eddy Covariance, Soil Water Budget, Analytical and Model.” Agricultural and Forest Meteorology 228–229 (November): 191–204. doi:10.1016/j.agrformet.2016.07.001.

Spank, Uwe, Barbara Köstner, Uta Moderow, Thomas Grünwald, and Christian Bernhofer. 2016. “Surface Conductance of Five Different Crops Based on 10 Years of Eddy-Covariance Measurements.” Meteorologische Zeitschrift 25 (3): 251–66. doi:10.1127/metz/2016/0732.

Sperlich, P., N. A. M. Uitslag, J. M. Richter, M. Rothe, H. Geilmann, C. van der Veen, T. Röckmann, T. Blunier, and W. A. Brand. 2016. “Development and Evaluation of a Suite of Isotope Reference Gases for Methane in Air.” Atmospheric Measurement Techniques Discussions, January, 1–24. doi:10.5194/amt-2016-15.

Stone, D., P. Blomkvist, N.Bohse Hendriksen, M. Bonkowski, H.Bracht Jørgensen, F. Carvalho, M.B. Dunbar, et al. 2016. “A Method of Establishing a Transect for Biodiversity and Ecosystem Function Monitoring across Europe.” Applied Soil Ecology 97 (January): 3–11. doi:10.1016/j.apsoil.2015.06.017.

Thompson, R. L., P. K. Patra, F. Chevallier, S. Maksyutov, R. M. Law, T. Ziehn, I. T. van der Laan-Luijkx, et al. 2016. “Top–down Assessment of the Asian Carbon Budget since the Mid 1990s.” Nature Communications 7 (February): 10724. doi:10.1038/ncomms10724.

Tramontana, Gianluca, Martin Jung, Christopher R. Schwalm, Kazuhito Ichii, Gustau Camps-Valls, Botond Ráduly, Markus Reichstein, et al. 2016. “Predicting Carbon Dioxide and Energy Fluxes across Global FLUXNET Sites with Regression Algorithms.” Biogeosciences 13 (14): 4291–4313. doi:10.5194/bg-13-4291-2016.

Vaglio Laurin, Gaia, Francesco Pirotti, Mattia Callegari, Qi Chen, Giovanni Cuozzo, Emanuele Lingua, Claudia Notarnicola, and Dario Papale. 2016. “Potential of ALOS2 and NDVI to Estimate Forest Above-Ground Biomass, and Comparison with Lidar-Derived Estimates.” Remote Sensing 9 (1): 18. doi:10.3390/rs9010018.

van der Laan, S, S N Manohar, A T Vermeulen, F C Bosveld, H A J Meijer, A C Manning, M K van der Molen, and I T van der Laan-Luijkx. 2016. “Inferring 222Radon Soil Fluxes from Ambient 222Radon Activity and Eddy Covariance Measurements of CO2.” Atmospheric Measurement Techniques Discussions 2016 (May). Copernicus Publications: 1–18. doi:10.5194/amt-2016-93.

van der Molen, M. K., R. A. M. de Jeu, W. Wagner, I. R. van der Velde, P. Kolari, J. Kurbatova, A. Varlagin, et al. 2016. “The Effect of Assimilating Satellite-Derived Soil Moisture Data in SiBCASA on Simulated Carbon Fluxes in Boreal Eurasia.” Hydrology and Earth System Sciences 20 (2): 605–24. doi:10.5194/hess-20-605-2016.

Vanbeveren, S.P.P., R. Gebauer, R. Plichta, D. Volařík, and R. Ceulemans. 2016. “Nutrients and Energy in Proleptic Branches and Leaves of Poplar under a Short-Rotation Coppice.” Biomass and Bioenergy 85 (February): 271–77. doi:10.1016/j.biombioe.2015.12.016.

Vanbeveren, Stefan Paula Patrick, Natascia Magagnotti, and Raffaele Spinelli. 2016. “Increasing the Value Recovery from Short-Rotation Coppice Harvesting.” BioResources 12 (1). doi:10.15376/biores.12.1.696-703.

Vardag, Sanam Noreen, Samuel Hammer, and Ingeborg Levin. 2016. “Evaluation of 4 Years of Continuous Δ13C(CO2) Data Using a Moving Keeling Plot Method.” Biogeosciences 13 (14): 4237–51. doi:10.5194/bg-13-4237-2016.

Vicca, Sara, Manuela Balzarolo, Iolanda Filella, André Granier, Mathias Herbst, Alexander Knohl, Bernard Longdoz, et al. 2016. “Remotely-Sensed Detection of Effects of Extreme Droughts on Gross Primary Production.” Scientific Reports 6 (1): 28269. doi:10.1038/srep28269.

Walter, S., A. Kock, T. Steinhoff, B. Fiedler, P. Fietzek, J. Kaiser, M. Krol, et al. 2016. “Isotopic Evidence for Biogenic Molecular Hydrogen Production in the Atlantic Ocean.” Biogeosciences 13 (1): 323–40. doi:10.5194/bg-13-323-2016.

Wolf, Sebastian, Trevor F. Keenan, Joshua B. Fisher, Dennis D. Baldocchi, Ankur R. Desai, Andrew D. Richardson, Russell L. Scott, et al. 2016. “Warm Spring Reduced Carbon Cycle Impact of the 2012 US Summer Drought.” Proceedings of the National Academy of Sciences 113 (21): 5880–85. doi:10.1073/pnas.1519620113.

Wu, X., N. Vuichard, P. Ciais, N. Viovy, N. de Noblet-Ducoudré, X. Wang, V. Magliulo, et al. 2016. “ORCHIDEE-CROP (v0), a New Process-Based Agro-Land Surface Model: Model Description and Evaluation over Europe.” Geoscientific Model Development 9 (2): 857–73. doi:10.5194/gmd-9-857-2016.

Yasunaka, Sayaka, Akihiko Murata, Eiji Watanabe, Melissa Chierici, Agneta Fransson, Steven van Heuven, Mario Hoppema, et al. 2016. “Mapping of the Air–sea CO2 Flux in the Arctic Ocean and Its Adjacent Seas: Basin-Wide Distribution and Seasonal to Interannual Variability.” Polar Science 10 (3): 323–34. doi:10.1016/j.polar.2016.03.006.

Zellweger, Christoph, Lukas Emmenegger, Mohd Firdaus, Juha Hatakka, Martin Heimann, Elena Kozlova, T. Gerard Spain, Martin Steinbacher, Marcel V. van der Schoot, and Brigitte Buchmann. 2016. “Assessment of Recent Advances in Measurement Techniques for Atmospheric Carbon Dioxide and Methane Observations.” Atmospheric Measurement Techniques 9 (9): 4737–57. doi:10.5194/amt-9-4737-2016.

Zenone, Terenzio, Carlijn Hendriks, Federico Brilli, Erik Fransen, Beniamio Gioli, Miguel Portillo-Estrada, Martijn Schaap, and Reinhart Ceulemans. 2016. “Interaction between Isoprene and Ozone Fluxes in a Poplar Plantation and Its Impact on Air Quality at the European Level.” Scientific Reports 6 (1): 32676. doi:10.1038/srep32676.

Zenone, Terenzio, Donatella Zona, Ilya Gelfand, Bert Gielen, Marta Camino-Serrano, and Reinhart Ceulemans. 2016. “CO2 Uptake Is Offset by CH4 and N2O Emissions in a Poplar Short-Rotation Coppice.” GCB Bioenergy 8 (3): 524–38. doi:10.1111/gcbb.12269.

Ziemblińska, K., M. Urbaniak, B. H. Chojnicki, T. A. Black, S. Niu, and J. Olejnik. 2016. “Net Ecosystem Productivity and Its Environmental Controls in a Mature Scots Pine Stand in North-Western Poland.” Agricultural and Forest Meteorology 228–229. doi:10.1016/j.agrformet.2016.05.022.

Zweifel, Roman. 2016. “Radial Stem Variations - a Source of Tree Physiological Information Not Fully Exploited Yet.” Plant, Cell & Environment 39 (2): 231–32. doi:10.1111/pce.12613.

Zweifel, Roman, Matthias Haeni, Nina Buchmann, and Werner Eugster. 2016. “Are Trees Able to Grow in Periods of Stem Shrinkage?” New Phytologist 211 (3): 839–49. doi:10.1111/nph.13995.

# 2015

Ago, Expedit Evariste, Dominique Serça, Euloge Kossi Agbossou, Sylvie Galle, and Marc Aubinet. 2015. “Carbon Dioxide Fluxes from a Degraded Woodland in West Africa and Their Responses to Main Environmental Factors.” Carbon Balance and Management 10 (1): 22. doi:10.1186/s13021-015-0033-6.

Ågren, Anneli, William Lidberg, and Eva Ring. 2015. “Mapping Temporal Dynamics in a Forest Stream Network—Implications for Riparian Forest Management.” Forests 6 (12): 2982–3001. doi:10.3390/f6092982.

Åkerblom, Staffan, Markus Meili, and Kevin Bishop. 2015. “Organic Matter in Rain: An Overlooked Influence on Mercury Deposition.” Environmental Science & Technology Letters 2 (4): 128–32. doi:10.1021/acs.estlett.5b00009.

Alexe, M., P. Bergamaschi, A. Segers, R. Detmers, A. Butz, O. Hasekamp, S. Guerlet, et al. 2015. “Inverse Modelling of CH4 Emissions for 2010–2011 Using Different Satellite Retrieval Products from GOSAT and SCIAMACHY.” Atmospheric Chemistry and Physics 15 (1): 113–33. doi:10.5194/acp-15-113-2015.

Ali, Genevieve, Doerthe Tetzlaff, Jeffrey J. McDonnell, Chris Soulsby, Sean Carey, Hjalmar Laudon, Kevin McGuire, Jim Buttle, Jan Seibert, and Jamie Shanley. 2015. “Comparison of Threshold Hydrologic Response across Northern Catchments.” Hydrological Processes 29 (16): 3575–91. doi:10.1002/hyp.10527.

Allin, S. J., J. C. Laube, E. Witrant, J. Kaiser, E. McKenna, P. Dennis, R. Mulvaney, et al. 2015. “Chlorine Isotope Composition in Chlorofluorocarbons CFC-11, CFC-12 and CFC-113 in Firn, Stratospheric and Tropospheric Air.” Atmospheric Chemistry and Physics 15 (12): 6867–77. doi:10.5194/acp-15-6867-2015.

Anav, Alessandro, Pierre Friedlingstein, Christian Beer, Philippe Ciais, Anna Harper, Chris Jones, Guillermo Murray-Tortarolo, et al. 2015. “Spatiotemporal Patterns of Terrestrial Gross Primary Production: A Review.” Reviews of Geophysics 53 (3): 785–818. doi:10.1002/2015RG000483.

Arévalo-Martínez, D. L., A. Kock, C. R. Löscher, R. A. Schmitz, and H. W. Bange. 2015. “Massive Nitrous Oxide Emissions from the Tropical South Pacific Ocean.” Nature Geoscience 8 (7): 530–33. doi:10.1038/ngeo2469.

Arévalo-Martínez, D. L., A. Kock, C. R. Löscher, R. A. Schmitz, L. Stramma, and H. W. Bange. 2015. “Influence of Mesoscale Eddies on the Distribution of Nitrous Oxide in the Eastern Tropical South Pacific.” Biogeosciences Discussions 12 (12): 9243–73. doi:10.5194/bgd-12-9243-2015.

Baatz, R., H. R. Bogena, H.-J. Hendricks Franssen, J. A. Huisman, C. Montzka, and H. Vereecken. 2015. “An Empirical Vegetation Correction for Soil Water Content Quantification Using Cosmic Ray Probes.” Water Resources Research 51 (4): 2030–46. doi:10.1002/2014WR016443.

Babenhauserheide, A., S. Basu, S. Houweling, W. Peters, and A. Butz. 2015. “Comparing the CarbonTracker and M5-4DVar Data Assimilation Systems for CO2 Surface Flux Inversions.” Atmospheric Chemistry and Physics 15 (17): 9747–63. doi:10.5194/acp-15-9747-2015.

Balzarolo, M., L. Vescovo, A. Hammerle, D. Gianelle, D. Papale, E. Tomelleri, and G. Wohlfahrt. 2015. “On the Relationship between Ecosystem-Scale Hyperspectral Reflectance and CO2 Exchange in European Mountain Grasslands.” Biogeosciences 12 (10): 3089–3108. doi:10.5194/bg-12-3089-2015.

Barton, L., B. Wolf, D. Rowlings, C. Scheer, R. Kiese, P. Grace, K. Stefanova, and K. Butterbach-Bahl. 2015. “Sampling Frequency Affects Estimates of Annual Nitrous Oxide Fluxes.” Scientific Reports 5 (November): 15912. doi:10.1038/srep15912.

Bergamaschi, P., M. Corazza, U. Karstens, M. Athanassiadou, R. L. Thompson, I. Pison, A. J. Manning, et al. 2015. “Top-down Estimates of European CH4 and N2O Emissions Based on Four Different Inverse Models.” Atmospheric Chemistry and Physics 15 (2): 715–36. doi:10.5194/acp-15-715-2015.

Berggren, Martin, Ann-Kristin Bergström, and Jan Karlsson. 2015. “Intraspecific Autochthonous and Allochthonous Resource Use by Zooplankton in a Humic Lake during the Transitions between Winter, Summer and Fall.” Edited by Tomoya Iwata. PLOS ONE 10 (3): e0120575. doi:10.1371/journal.pone.0120575.

Berhongaray, G., and R. Ceulemans. 2015. “Neglected Carbon Pools and Fluxes in the Soil Balance of Short-Rotation Woody Biomass Crops.” Biomass and Bioenergy 73 (February): 62–66. doi:10.1016/j.biombioe.2014.12.002.

Berhongaray, G., M.S. Verlinden, L.S. Broeckx, and R. Ceulemans. 2015. “Changes in Belowground Biomass after Coppice in Two Populus Genotypes.” Forest Ecology and Management 337 (February): 1–10. doi:10.1016/j.foreco.2014.10.035.

Bidleman, Terry, Kathleen Agosta, Agneta Andersson, Eva Brorström-Lundén, Peter Haglund, Katarina Hansson, Hjalmar Laudon, et al. 2015. “Atmospheric Pathways of Chlorinated Pesticides and Natural Bromoanisoles in the Northern Baltic Sea and Its Catchment.” AMBIO 44 (S3): 472–83. doi:10.1007/s13280-015-0666-4.

Bishop, Kevin, and Jan Seibert. 2015. “A Primer for Hydrology: The Beguiling Simplicity of Water’s Journey from Rain to Stream at 30.” Hydrological Processes 29 (16): 3443–46. doi:10.1002/hyp.10516.

Bogena, H. R., R. Bol, N. Borchard, N. Brüggemann, B. Diekkrüger, C. Drüe, J. Groh, et al. 2015. “A Terrestrial Observatory Approach to the Integrated Investigation of the Effects of Deforestation on Water, Energy, and Matter Fluxes.” Science China Earth Sciences 58 (1): 61–75. doi:10.1007/s11430-014-4911-7.

Bosco, Simona, Iride Volpi, Nicoletta Nassi o Di Nasso, Federico Triana, Neri Roncucci, Cristiano Tozzini, Ricardo Villani, et al. 2015. “LIFE+IPNOA Mobile Prototype for the Monitoring of Soil N2O Emissions from Arable Crops: First-Year Results on Durum Wheat.” Italian Journal of Agronomy 10 (3): 124. doi:10.4081/ija.2015.669.

Brown, Peter J., Loïc Jullion, Peter Landschützer, Dorothee C. E. Bakker, Alberto C. Naveira Garabato, Michael P. Meredith, Sinhue Torres-Valdés, et al. 2015. “Carbon Dynamics of the Weddell Gyre, Southern Ocean.” Global Biogeochemical Cycles 29 (3): 288–306. doi:10.1002/2014GB005006.

Burrows, Ryan M., Erin R. Hotchkiss, Micael Jonsson, Hjalmar Laudon, Brendan G. McKie, and Ryan A. Sponseller. 2015. “Nitrogen Limitation of Heterotrophic Biofilms in Boreal Streams.” Freshwater Biology 60 (7): 1237–51. doi:10.1111/fwb.12549.

Campioli, M., S. Vicca, S. Luyssaert, J. Bilcke, E. Ceschia, F. S. Chapin III, P. Ciais, et al. 2015. “Biomass Production Efficiency Controlled by Management in Temperate and Boreal Ecosystems.” Nature Geoscience 8 (11): 843–46. doi:10.1038/ngeo2553.

Combe, M., J. Vilà-Guerau de Arellano, H. G. Ouwersloot, C. M. J. Jacobs, and W. Peters. 2015. “Two Perspectives on the Coupled Carbon, Water and Energy Exchange in the Planetary Boundary Layer.” Biogeosciences 12 (1): 103–23. doi:10.5194/bg-12-103-2015.

Creed, Irena F., Diane M. McKnight, Brian A. Pellerin, Mark B. Green, Brian A. Bergamaschi, George R. Aiken, Douglas A. Burns, et al. 2015. “The River as a Chemostat: Fresh Perspectives on Dissolved Organic Matter Flowing down the River Continuum.” Edited by Ralph Smith. Canadian Journal of Fisheries and Aquatic Sciences 72 (8): 1272–85. doi:10.1139/cjfas-2014-0400.

De Groote, T., D. Zona, L. S. Broeckx, M. S. Verlinden, S. Luyssaert, V. Bellassen, N. Vuichard, R. Ceulemans, A. Gobin, and I. A. Janssens. 2015. “ORCHIDEE-SRC v1.0: An Extension of the Land Surface Model ORCHIDEE for Simulating Short Rotation Coppice Poplar Plantations.” Geoscientific Model Development 8 (5): 1461–71. doi:10.5194/gmd-8-1461-2015.

de la Paz, M., I.E. Huertas, S. Flecha, A.F. Ríos, and F.F. Pérez. 2015. “Nitrous Oxide and Methane in Atlantic and Mediterranean Waters in the Strait of Gibraltar: Air-Sea Fluxes and Inter-Basin Exchange.” Progress in Oceanography 138 (November): 18–31. doi:10.1016/j.pocean.2015.09.009.

Dvorská, A., P. Sedlák, J. Schwarz, M. Fusek, V. Hanuš, P. Vodička, and J. Trusina. 2015. “Atmospheric Station Křešín u Pacova, Czech Republic – a Central European Research Infrastructure for Studying Greenhouse Gases, Aerosols and Air Quality.” Advances in Science and Research 12 (May): 79–83. doi:10.5194/asr-12-79-2015.

Eder, Fabian, Marius Schmidt, Thomas Damian, Katja Träumner, and Matthias Mauder. 2015. “Mesoscale Eddies Affect Near-Surface Turbulent Exchange: Evidence from Lidar and Tower Measurements.” Journal of Applied Meteorology and Climatology 54 (1): 189–206. doi:10.1175/JAMC-D-14-0140.1.

Eklöf, Karin, Andrea Kraus, Martyn Futter, Jakob Schelker, Markus Meili, Elizabeth W. Boyer, and Kevin Bishop. 2015. “Parsimonious Model for Simulating Total Mercury and Methylmercury in Boreal Streams Based on Riparian Flow Paths and Seasonality.” Environmental Science & Technology 49 (13): 7851–59. doi:10.1021/acs.est.5b00852.

El Kasmioui, O., A. Verbruggen, and R. Ceulemans. 2015. “The 2013 Reforms of the Flemish Renewable Electricity Support: Missed Opportunities.” Renewable Energy 83 (November): 905–17. doi:10.1016/j.renene.2015.05.023.

Erhagen, Björn, Ulrik Ilstedt, and Mats B. Nilsson. 2015. “Temperature Sensitivity of Heterotrophic Soil CO2 Production Increases with Increasing Carbon Substrate Uptake Rate.” Soil Biology and Biochemistry 80 (January): 45–52. doi:10.1016/j.soilbio.2014.09.021.

Eugster, W., and L. Merbold. 2015. “Eddy Covariance for Quantifying Trace Gas Fluxes from Soils.” SOIL 1 (1): 187–205. doi:10.5194/soil-1-187-2015.

Eyer, S., B. Tuzson, M. E. Popa, C. van der Veen, T. Röckmann, M. Rothe, W. A. Brand, et al. 2015. “Real-Time Analysis of δ13C- and ΔD-CH4 in Ambient Air with Laser Spectroscopy: Method Development and First Intercomparison Results.” Atmospheric Measurement Techniques Discussions 8 (8): 8925–70. doi:10.5194/amtd-8-8925-2015.

Fang, Zhufeng, Heye Bogena, Stefan Kollet, Julian Koch, and Harry Vereecken. 2015. “Spatio-Temporal Validation of Long-Term 3D Hydrological Simulations of a Forested Catchment Using Empirical Orthogonal Functions and Wavelet Coherence Analysis.” Journal of Hydrology 529 (October): 1754–67. doi:10.1016/j.jhydrol.2015.08.011.

FICHOT, RÉGIS, FRANCK BRIGNOLAS, HERVÉ COCHARD, and REINHART CEULEMANS. 2015. “Vulnerability to Drought-Induced Cavitation in Poplars: Synthesis and Future Opportunities.” Plant, Cell & Environment 38 (7): 1233–51. doi:10.1111/pce.12491.

Filipovic, Marko, Hjalmar Laudon, Michael S. McLachlan, and Urs Berger. 2015. “Mass Balance of Perfluorinated Alkyl Acids in a Pristine Boreal Catchment.” Environmental Science & Technology 49 (20): 12127–35. doi:10.1021/acs.est.5b03403.

Ganesan, A. L., A. J. Manning, A. Grant, D. Young, D .E. Oram, W. T. Sturges, J. B. Moncrieff, and S. O’Doherty. 2015. “Quantifying Methane and Nitrous Oxide Emissions from the UK and Ireland Using a National-Scale Monitoring Network.” Atmospheric Chemistry and Physics 15 (11): 6393–6406. doi:10.5194/acp-15-6393-2015.

Gebauer, Roman, Jan Čermák, Roman Plichta, Zuzana Špinlerová, Josef Urban, Daniel Volařík, and Reinhart Ceulemans. 2015. “Within-Canopy Variation in Needle Morphology and Anatomy of Vascular Tissues in a Sparse Scots Pine Forest.” Trees 29 (5): 1447–57. doi:10.1007/s00468-015-1224-1.

Gebler, S., H.-J. Hendricks Franssen, T. Pütz, H. Post, M. Schmidt, and H. Vereecken. 2015. “Actual Evapotranspiration and Precipitation Measured by Lysimeters: A Comparison with Eddy Covariance and Tipping Bucket.” Hydrology and Earth System Sciences 19 (5): 2145–61. doi:10.5194/hess-19-2145-2015.

Goffin, Stéphanie, Christophe Wylock, Benoit Haut, Martin Maier, Bernard Longdoz, and Marc Aubinet. 2015. “Modeling Soil CO2 Production and Transport to Investigate the Intra-Day Variability of Surface Efflux and Soil CO2 Concentration Measurements in a Scots Pine Forest (Pinus Sylvestris, L.).” Plant and Soil 390 (1–2): 195–211. doi:10.1007/s11104-015-2381-0.

Gouttevin, I., M. Lehning, T. Jonas, D. Gustafsson, and M. Mölder. 2015. “A Two-Layer Canopy Model with Thermal Inertia for an Improved Snowpack Energy Balance below Needleleaf Forest (Model SNOWPACK, Version 3.2.1, Revision 741).” Geoscientific Model Development 8 (8): 2379–98. doi:10.5194/gmd-8-2379-2015.

Graziosi, F., J. Arduini, F. Furlani, U. Giostra, L.J.M. Kuijpers, S.A. Montzka, B.R. Miller, et al. 2015. “European Emissions of HCFC-22 Based on Eleven Years of High Frequency Atmospheric Measurements and a Bayesian Inversion Method.” Atmospheric Environment 112 (July): 196–207. doi:10.1016/j.atmosenv.2015.04.042.

Hahmann, Andrea N., Claire L. Vincent, Alfredo Peña, Julia Lange, and Charlotte B. Hasager. 2015. “Wind Climate Estimation Using WRF Model Output: Method and Model Sensitivities over the Sea.” International Journal of Climatology 35 (12): 3422–39. doi:10.1002/joc.4217.

Hari, P., T. Petäjä, J. Bäck, V.-M. Kerminen, H. K. Lappalainen, T. Vihma, T. Laurila, Y. Viisanen, T. Vesala, and M. Kulmala. 2015. “Conceptual Design of a Measurement Network of the Global Change.” Atmospheric Chemistry and Physics Discussions 15 (15): 21063–93. doi:10.5194/acpd-15-21063-2015.

Haszpra, L., Z. Barcza, T. Haszpra, Zs. Pátkai, and K. J. Davis. 2015. “How Well Do Tall-Tower Measurements Characterize the CO2 Mole Fraction Distribution in the Planetary Boundary Layer?” Atmospheric Measurement Techniques 8 (4): 1657–71. doi:10.5194/amt-8-1657-2015.

Haszpra, L., Z. Barcza, T. Haszpra, Zs. Pátkai, and K. J. Davis. 2015. “How Well Do Tall-Tower Measurements Characterize the CO2 Mole Fraction Distribution in the Planetary Boundary Layer?” Atmospheric Measurement Techniques 8 (4): 1657–71. doi:10.5194/amt-8-1657-2015.

Hausmann, P., R. Sussmann, and D. Smale. 2015. “Contribution of Oil and Natural Gas Production to Renewed Increase of Atmospheric Methane (2007&amp;Ndash;2014): Top-down Estimate from Ethane and Methane Column Observations.” Atmospheric Chemistry and Physics Discussions 15 (24): 35991–28. doi:10.5194/acpd-15-35991-2015.

Heiskanen, Jouni J., Ivan Mammarella, Anne Ojala, Victor Stepanenko, Kukka-Maaria Erkkilä, Heli Miettinen, Heidi Sandström, et al. 2015. “Effects of Water Clarity on Lake Stratification and Lake-Atmosphere Heat Exchange.” Journal of Geophysical Research: Atmospheres 120 (15): 7412–28. doi:10.1002/2014JD022938.

Hellsten, Antti, Sofia-M. Luukkonen, Gerald Steinfeld, Farah Kanani-Sühring, Tiina Markkanen, Leena Järvi, Juha Lento, Timo Vesala, and Siegfried Raasch. 2015. “Footprint Evaluation for Flux and Concentration Measurements for an Urban-Like Canopy with Coupled Lagrangian Stochastic and Large-Eddy Simulation Models.” Boundary-Layer Meteorology 157 (2): 191–217. doi:10.1007/s10546-015-0062-4.

Henriksson, Nils, Lasse Tarvainen, Hyungwoo Lim, Pantana Tor-Ngern, Sari Palmroth, Ram Oren, John Marshall, and Torgny Näsholm. 2015. “Stem Compression Reversibly Reduces Phloem Transport in Pinus Sylvestris Trees.” Edited by David Tissue. Tree Physiology 35 (10): 1075–85. doi:10.1093/treephys/tpv078.

Herbst, Mathias, Martina Mund, Rijan Tamrakar, and Alexander Knohl. 2015. “Differences in Carbon Uptake and Water Use between a Managed and an Unmanaged Beech Forest in Central Germany.” Forest Ecology and Management 355 (November): 101–8. doi:10.1016/j.foreco.2015.05.034.

Hoker, J., F. Obersteiner, H. Bönisch, and A. Engel. 2015. “Comparison of GC/Time-of-Flight MS with GC/Quadrupole MS for Halocarbon Trace Gas Analysis.” Atmospheric Measurement Techniques 8 (5): 2195–2206. doi:10.5194/amt-8-2195-2015.

Hu, Guangcheng, Li Jia, and Massimo Menenti. 2015. “Comparison of MOD16 and LSA-SAF MSG Evapotranspiration Products over Europe for 2011.” Remote Sensing of Environment 156 (January): 510–26. doi:10.1016/j.rse.2014.10.017.

Hytteborn, Julia K., Johan Temnerud, Richard B. Alexander, Elizabeth W. Boyer, Martyn N. Futter, Mats Fröberg, Joel Dahné, and Kevin H. Bishop. 2015. “Patterns and Predictability in the Intra-Annual Organic Carbon Variability across the Boreal and Hemiboreal Landscape.” Science of The Total Environment 520 (July): 260–69. doi:10.1016/j.scitotenv.2015.03.041.

Jantze, E. J., H. Laudon, H. E. Dahlke, and S. W. Lyon. 2015. “Spatial Variability of Dissolved Organic and Inorganic Carbon in Subarctic Headwater Streams.” Arctic, Antarctic, and Alpine Research 47 (3): 529–46. doi:10.1657/AAAR0014-044.

Johansson, Sara, Karin Carlqvist, Rashmi Kataria, Thomas Ulvcrona, Urban Bergsten, Mehrdad Arshadi, Mats Galbe, and Gunnar Lidén. 2015. “Implications of Differences in Macromolecular Composition of Stem Fractions for Processing of Scots Pine.” Wood Science and Technology 49 (5): 1037–54. doi:10.1007/s00226-015-0739-3.

Kadygrov, N., G. Broquet, F. Chevallier, L. Rivier, C. Gerbig, and P. Ciais. 2015. “On the Potential of the ICOS Atmospheric CO2 Measurement Network for Estimating the Biogenic CO2 Budget of Europe.” Atmospheric Chemistry and Physics 15 (22): 12765–87. doi:10.5194/acp-15-12765-2015.

Karstens, U., C. Schwingshackl, D. Schmithüsen, and I. Levin. 2015. “A Process-Based 222radon Flux Map for Europe and Its Comparison to Long-Term Observations.” Atmospheric Chemistry and Physics 15 (22): 12845–65. doi:10.5194/acp-15-12845-2015.

Karstensen, J., B. Fiedler, F. Schütte, P. Brandt, A. Körtzinger, G. Fischer, R. Zantopp, J. Hahn, M. Visbeck, and D. Wallace. 2015. “Open Ocean Dead Zones in the Tropical North Atlantic Ocean.” Biogeosciences 12 (8): 2597–2605. doi:10.5194/bg-12-2597-2015.

Kothawala, Dolly N., Xing Ji, Hjalmar Laudon, Anneli M. Ågren, Martyn N. Futter, Stephan J. Köhler, and Lars J. Tranvik. 2015. “The Relative Influence of Land Cover, Hydrology, and in-Stream Processing on the Composition of Dissolved Organic Matter in Boreal Streams.” Journal of Geophysical Research: Biogeosciences 120 (8): 1491–1505. doi:10.1002/2015JG002946.

Kugler, Florian, Seung-Kuk Lee, Irena Hajnsek, and Konstantinos P. Papathanassiou. 2015. “Forest Height Estimation by Means of Pol-InSAR Data Inversion: The Role of the Vertical Wavenumber.” IEEE Transactions on Geoscience and Remote Sensing 53 (10): 5294–5311. doi:10.1109/TGRS.2015.2420996.

Kuglerová, Lenka, Roland Jansson, Ryan A. Sponseller, Hjalmar Laudon, and Birgitta Malm-Renöfält. 2015. “Local and Regional Processes Determine Plant Species Richness in a River-Network Metacommunity.” Ecology 96 (2): 381–91. doi:10.1890/14-0552.1.

Kutsch, Werner L., and Pasi Kolari. 2015. “Data Quality and the Role of Nutrients in Forest Carbon-Use Efficiency.” Nature Climate Change 5 (11): 959–60. doi:10.1038/nclimate2793.

Lam, Norris, Marcus Nathanson, Niclas Lundgren, Robin Rehnström, and Steve W. Lyon. 2015. “A Cost-Effective Laser Scanning Method for Mapping Stream Channel Geometry and Roughness.” JAWRA Journal of the American Water Resources Association 51 (5): 1211–20. doi:10.1111/1752-1688.12299.

Landschützer, Peter, Nicolas Gruber, F. Alexander Haumann, Christian Rödenbeck, Dorothee C. E. Bakker, Steven van Heuven, Mario Hoppema, et al. 2015. “The Reinvigoration of the Southern Ocean Carbon Sink.” Science 349 (6253): 1221–24. doi:10.1126/science.aab2620.

Langer, M., S. Westermann, K. Walter Anthony, K. Wischnewski, and J. Boike. 2015. “Frozen Ponds: Production and Storage of Methane during the Arctic Winter in a Lowland Tundra Landscape in Northern Siberia, Lena River Delta.” Biogeosciences 12 (4): 977–90. doi:10.5194/bg-12-977-2015.

Langford, B., W. Acton, C. Ammann, A. Valach, and E. Nemitz. 2015. “Eddy-Covariance Data with Low Signal-to-Noise Ratio: Time-Lag Determination, Uncertainties and Limit of Detection.” Atmospheric Measurement Techniques 8 (10). doi:10.5194/amt-8-4197-2015.

Le Quéré, C., R. Moriarty, R. M. Andrew, J. G. Canadell, S. Sitch, J. I. Korsbakken, P. Friedlingstein, et al. 2015. “Global Carbon Budget 2015.” Earth System Science Data 7 (2): 349–96. doi:10.5194/essd-7-349-2015.

Le Quéré, C., R. Moriarty, R. M. Andrew, G. P. Peters, P. Ciais, P. Friedlingstein, S. D. Jones, et al. 2015. “Global Carbon Budget 2014.” Earth System Science Data 7 (1): 47–85. doi:10.5194/essd-7-47-2015.

Lebegue, B., M. Schmidt, M. Ramonet, B. Wastine, C. Yver Kwok, O. Laurent, S. Belviso, et al. 2015. “Comparison of Nitrous Oxide (N2O) Analyzers for High-Precision Measurements of Atmospheric Mole Fractions.” Atmospheric Measurement Techniques Discussions 8 (10): 10937–82. doi:10.5194/amtd-8-10937-2015.

Ledesma, José L. J., Thomas Grabs, Kevin H. Bishop, Sherry L. Schiff, and Stephan J. Köhler. 2015. “Potential for Long-Term Transfer of Dissolved Organic Carbon from Riparian Zones to Streams in Boreal Catchments.” Global Change Biology 21 (8): 2963–79. doi:10.1111/gcb.12872.

Leith, F. I., K. J. Dinsmore, M. B. Wallin, M. F. Billett, K. V. Heal, H. Laudon, M. G. Öquist, and K. Bishop. 2015. “Carbon Dioxide Transport across the Hillslope–riparian–stream Continuum in a Boreal Headwater Catchment.” Biogeosciences 12 (6): 1881–92. doi:10.5194/bg-12-1881-2015.

Lin, X., N. K. Indira, M. Ramonet, M. Delmotte, P. Ciais, B. C. Bhatt, M. V. Reddy, et al. 2015. “Long-Lived Atmospheric Trace Gases Measurements in Flask Samples from Three Stations in India.” Atmospheric Chemistry and Physics 15 (17): 9819–49. doi:10.5194/acp-15-9819-2015.

Lindqvist, H., C. W. O’Dell, S. Basu, H. Boesch, F. Chevallier, N. Deutscher, L. Feng, et al. 2015. “Does GOSAT Capture the True Seasonal Cycle of Carbon Dioxide?” Atmospheric Chemistry and Physics 15 (22): 13023–40. doi:10.5194/acp-15-13023-2015.

Locatelli, R., P. Bousquet, F. Hourdin, M. Saunois, A. Cozic, F. Couvreux, J.-Y. Grandpeix, et al. 2015. “Atmospheric Transport and Chemistry of Trace Gases in LMDz5B: Evaluation and Implications for Inverse Modelling.” Geoscientific Model Development 8 (2): 129–50. doi:10.5194/gmd-8-129-2015.

Locatelli, R., P. Bousquet, F. Hourdin, M. Saunois, A. Cozic, F. Couvreux, J.-Y. Grandpeix, et al. 2015. “Atmospheric Transport and Chemistry of Trace Gases in LMDz5B: Evaluation and Implications for Inverse Modelling.” Geoscientific Model Development 8 (2): 129–50. doi:10.5194/gmd-8-129-2015.

Lopez, M., M. Schmidt, M. Ramonet, J.-L. Bonne, A. Colomb, V. Kazan, P. Laj, and J.-M. Pichon. 2015. “Three Years of Semicontinuous Greenhouse Gas Measurements at the Puy de Dôme Station (Central France).” Atmospheric Measurement Techniques 8 (9): 3941–58. doi:10.5194/amt-8-3941-2015.

Lunt, Mark F., Matthew Rigby, Anita L. Ganesan, Alistair J. Manning, Ronald G. Prinn, Simon O’Doherty, Jens Mühle, et al. 2015. “Reconciling Reported and Unreported HFC Emissions with Atmospheric Observations.” Proceedings of the National Academy of Sciences 112 (19): 5927–31. doi:10.1073/pnas.1420247112.

Lyon, Steve, Marcus Nathanson, Norris Lam, Helen Dahlke, Martin Rutzinger, Jason Kean, and Hjalmar Laudon. 2015. “Can Low-Resolution Airborne Laser Scanning Data Be Used to Model Stream Rating Curves?” Water 7 (12): 1324–39. doi:10.3390/w7041324.

Ma, Ming, Dingyong Wang, Hongxia Du, Tao Sun, Zheng Zhao, and Shiqing Wei. 2015. “Atmospheric Mercury Deposition and Its Contribution of the Regional Atmospheric Transport to Mercury Pollution at a National Forest Nature Reserve, Southwest China.” Environmental Science and Pollution Research 22 (24): 20007–18. doi:10.1007/s11356-015-5152-9.

Maaroufi, Nadia I., Annika Nordin, Niles J. Hasselquist, Lisbet H. Bach, Kristin Palmqvist, and Michael J. Gundale. 2015. “Anthropogenic Nitrogen Deposition Enhances Carbon Sequestration in Boreal Soils.” Global Change Biology 21 (8): 3169–80. doi:10.1111/gcb.12904.

Mammarella, Ivan, Annika Nordbo, Üllar Rannik, Sami Haapanala, Janne Levula, Heikki Laakso, Anne Ojala, et al. 2015. “Carbon Dioxide and Energy Fluxes over a Small Boreal Lake in Southern Finland.” Journal of Geophysical Research: Biogeosciences 120 (7): 1296–1314. doi:10.1002/2014JG002873.

Ostler, A., R. Sussmann, P. K. Patra, P. O. Wennberg, N. M. Deutscher, D. W. T. Griffith, T. Blumenstock, et al. 2015. “The Imprint of Stratospheric Transport on Column-Averaged Methane.” Atmospheric Chemistry and Physics Discussions 15 (14): 20395–447. doi:10.5194/acpd-15-20395-2015.

Pal, S., M. Lopez, M. Schmidt, M. Ramonet, F. Gibert, I. Xueref-Remy, and P. Ciais. 2015. “Investigation of the Atmospheric Boundary Layer Depth Variability and Its Impact on the 222 Rn Concentration at a Rural Site in France.” Journal of Geophysical Research: Atmospheres 120 (2): 623–43. doi:10.1002/2014JD022322.

Parard, G., A. A. Charantonis, and A. Rutgerson. 2015. “Remote Sensing the Sea Surface CO2 of the Baltic Sea Using the SOMLO Methodology.” Biogeosciences 12 (11): 3369–84. doi:10.5194/bg-12-3369-2015.

Parker, R. J., H. Boesch, K. Byckling, A. J. Webb, P. I. Palmer, L. Feng, P. Bergamaschi, et al. 2015. “Assessing 5 Years of GOSAT Proxy XCH4 Data and Associated Uncertainties.” Atmospheric Measurement Techniques 8 (11): 4785–4801. doi:10.5194/amt-8-4785-2015.

Patricia Laville, Simone Neri, David Continanza, Luca Ferrante Vero, Simona Bosco, and Giorgio Virgili. 2015. “Cross-Validation of a Mobile N2O Flux Prototype (IPNOA) Using Micrometeorological and Chamber Methods.” Journal of Energy and Power Engineering 9 (4). doi:10.17265/1934-8975/2015.04.007.

Peltola, O., A. Hensen, L. Belelli Marchesini, C. Helfter, F.C. Bosveld, W.C.M. van den Bulk, S. Haapanala, et al. 2015. “Studying the Spatial Variability of Methane Flux with Five Eddy Covariance Towers of Varying Height.” Agricultural and Forest Meteorology 214–215 (December): 456–72. doi:10.1016/j.agrformet.2015.09.007.

Peltola, O., A. Hensen, L. Belelli Marchesini, C. Helfter, F.C. Bosveld, W.C.M. van den Bulk, S. Haapanala, et al. 2015. “Studying the Spatial Variability of Methane Flux with Five Eddy Covariance Towers of Varying Height.” Agricultural and Forest Meteorology 214–215 (December). Elsevier B.V.: 456–72. doi:10.1016/j.agrformet.2015.09.007.

Peralta-Tapia, A., R. A. Sponseller, D. Tetzlaff, C. Soulsby, and H. Laudon. 2015. “Connecting Precipitation Inputs and Soil Flow Pathways to Stream Water in Contrasting Boreal Catchments.” Hydrological Processes 29 (16): 3546–55. doi:10.1002/hyp.10300.

Peralta-Tapia, Andrés, Ryan A. Sponseller, Anneli Ågren, Doerthe Tetzlaff, Chris Soulsby, and Hjalmar Laudon. 2015. “Scale-Dependent Groundwater Contributions Influence Patterns of Winter Baseflow Stream Chemistry in Boreal Catchments.” Journal of Geophysical Research: Biogeosciences 120 (5): 847–58. doi:10.1002/2014JG002878.

Personne, Erwan, Florence Tardy, Sophie Génermont, Céline Decuq, Jean-Christophe Gueudet, Nicolas Mascher, Brigitte Durand, et al. 2015. “Investigating Sources and Sinks for Ammonia Exchanges between the Atmosphere and a Wheat Canopy Following Slurry Application with Trailing Hose.” Agricultural and Forest Meteorology 207 (July): 11–23. doi:10.1016/j.agrformet.2015.03.002.

Petrescu, Ana Maria Roxana, Annalea Lohila, Juha-Pekka Tuovinen, Dennis D. Baldocchi, Ankur R. Desai, Nigel T. Roulet, Timo Vesala, et al. 2015. “The Uncertain Climate Footprint of Wetlands under Human Pressure.” Proceedings of the National Academy of Sciences 112 (15): 4594–99. doi:10.1073/pnas.1416267112.

Post, H., H. J. Hendricks Franssen, A. Graf, M. Schmidt, and H. Vereecken. 2015. “Uncertainty Analysis of Eddy Covariance CO2 Flux Measurements for Different EC Tower Distances Using an Extended Two-Tower Approach.” Biogeosciences 12 (4): 1205–21. doi:10.5194/bg-12-1205-2015.

Potier, E., J. Ogée, J. Jouanguy, E. Lamaud, P. Stella, E. Personne, B. Durand, N. Mascher, and B. Loubet. 2015. “Multilayer Modelling of Ozone Fluxes on Winter Wheat Reveals Large Deposition on Wet Senescing Leaves.” Agricultural and Forest Meteorology 211–212 (October): 58–71. doi:10.1016/j.agrformet.2015.05.006.

Rantakari, Miitta, Jouni Heiskanen, Ivan Mammarella, Tiina Tulonen, Jessica Linnaluoma, Paula Kankaala, and Anne Ojala. 2015. “Different Apparent Gas Exchange Coefficients for CO 2 and CH 4 : Comparing a Brown-Water and a Clear-Water Lake in the Boreal Zone during the Whole Growing Season.” Environmental Science & Technology 49 (19): 11388–94. doi:10.1021/acs.est.5b01261.

Rhoderick, George C., Bradley D. Hall, Christina M. Harth, Jin Seog Kim, Jeongsoon Lee, Stephen A. Montzka, Jens Mühle, Stefan Reimann, Martin K. Vollmer, and Ray F. Weiss. 2015. “Comparison of Halocarbon Measurements in an Atmospheric Dry Whole Air Sample.” Elementa: Science of the Anthropocene 3 (November): 000075. doi:10.12952/journal.elementa.000075.

Richter, F., C. Döring, M. Jansen, O. Panferov, U. Spank, and C. Bernhofer. 2015. “How to Predict Hydrological Effects of Local Land Use Change: How the Vegetation Parameterisation for Short Rotation Coppices Influences Model Results.” Hydrology and Earth System Sciences 19 (8): 3457–74. doi:10.5194/hess-19-3457-2015.

Santoro, Maurizio, Leif Eriksson, and Johan Fransson. 2015. “Reviewing ALOS PALSAR Backscatter Observations for Stem Volume Retrieval in Swedish Forest.” Remote Sensing 7 (4): 4290–4317. doi:10.3390/rs70404290.

Schelker, J., R. Sponseller, E. Ring, L. Högbom, S. Löfgren, and H. Laudon. 2015. “Nitrogen Export from a Boreal Stream Network Following Forest Harvesting: Seasonal Nitrate Removal and Conservative Export of Organic Forms.” Biogeosciences Discussions 12 (15): 12061–89. doi:10.5194/bgd-12-12061-2015.

Schibig, M. F., M. Steinbacher, B. Buchmann, I. T. van der Laan-Luijkx, S. van der Laan, S. Ranjan, and M. C. Leuenberger. 2015. “Comparison of Continuous in Situ CO2 Observations at Jungfraujoch Using Two Different Measurement Techniques.” Atmospheric Measurement Techniques 8 (1): 57–68. doi:10.5194/amt-8-57-2015.

Schneider, B., S. Buecker, S. Kaitala, P. Maunula, and N. Wasmund. 2015. “Characteristics of the Spring/Summer Production in the Mecklenburg Bight (Baltic Sea) as Revealed by Long-Term PCO2 Data.” Oceanologia 57 (4): 375–85. doi:10.1016/j.oceano.2015.07.001.

Schoenenberger, Fabian, Martin K. Vollmer, Matt Rigby, Matthias Hill, Paul J. Fraser, Paul B. Krummel, Ray L. Langenfelds, Tae Siek Rhee, Thomas Peter, and Stefan Reimann. 2015. “First Observations, Trends, and Emissions of HCFC-31 (CH 2 ClF) in the Global Atmosphere.” Geophysical Research Letters 42 (18): 7817–24. doi:10.1002/2015GL064709.

Schurgers, G., F. Lagergren, M. Mölder, and A. Lindroth. 2015. “The Importance of Micrometeorological Variations for Photosynthesis and Transpiration in a Boreal Coniferous Forest.” Biogeosciences 12 (1): 237–56. doi:10.5194/bg-12-237-2015.

Schurgers, G., F. Lagergren, M. Mölder, and A. Lindroth. 2015. “The Importance of Micrometeorological Variations for Photosynthesis and Transpiration in a Boreal Coniferous Forest.” Biogeosciences 12 (1): 237–56. doi:10.5194/bg-12-237-2015.

Siegenthaler, A., B. Welch, S. R. Pangala, M. Peacock, and V. Gauci. 2015. “Technical Note: Semi-Rigid Chambers for Methane Gas Flux Measurements on Tree-Stems.” Biogeosciences Discussions 12 (18): 16019–48. doi:10.5194/bgd-12-16019-2015.

Song, Jinbao, Wei Fan, Shuang Li, and Ming Zhou. 2015. “Impact of Surface Waves on the Steady Near-Surface Wind Profiles over the Ocean.” Boundary-Layer Meteorology 155 (1): 111–27. doi:10.1007/s10546-014-9983-6.

Sundqvist, E., A. Persson, N. Kljun, P. Vestin, L. Chasmer, C. Hopkinson, and A. Lindroth. 2015. “Upscaling of Methane Exchange in a Boreal Forest Using Soil Chamber Measurements and High-Resolution LiDAR Elevation Data.” Agricultural and Forest Meteorology 214–215 (December): 393–401. doi:10.1016/j.agrformet.2015.09.003.

Sundqvist, Elin, Meelis Mölder, Patrick Crill, Natascha Kljun, and Anders Lindroth. 2015. “Methane Exchange in a Boreal Forest Estimated by Gradient Method.” Tellus B: Chemical and Physical Meteorology 67 (1): 26688. doi:10.3402/tellusb.v67.26688.

Sundqvist, Elin, Meelis Mölder, Patrick Crill, Natascha Kljun, and Anders Lindroth. 2015. “Methane Exchange in a Boreal Forest Estimated by Gradient Method.” Tellus B 67 (0). doi:10.3402/tellusb.v67.26688.

Tang, Xuguang, Hengpeng Li, Ankur R. Desai, Zoltan Nagy, Juhua Luo, Thomas E. Kolb, Albert Olioso, et al. 2015. “How Is Water-Use Efficiency of Terrestrial Ecosystems Distributed and Changing on Earth?” Scientific Reports 4 (1): 7483. doi:10.1038/srep07483.

Temnerud, J., C. von Brömssen, J. Fölster, I. Buffam, J.-O. Andersson, L. Nyberg, and K. Bishop. 2015. “Map-Based Prediction of Organic Carbon in Headwaters Streams Improved by Downstream Observations from the River Outlet.” Biogeosciences Discussions 12 (12): 9005–41. doi:10.5194/bgd-12-9005-2015.

Tetzlaff, Doerthe, James Buttle, Sean K. Carey, Marjolein H. J. van Huijgevoort, Hjalmar Laudon, James P. McNamara, Carl P. J. Mitchell, Chris Spence, Rachel S. Gabor, and Chris Soulsby. 2015. “A Preliminary Assessment of Water Partitioning and Ecohydrological Coupling in Northern Headwaters Using Stable Isotopes and Conceptual Runoff Models.” Hydrological Processes 29 (25): 5153–73. doi:10.1002/hyp.10515.

Tetzlaff, Doerthe, Jim Buttle, Sean K. Carey, Kevin McGuire, Hjalmar Laudon, and Chris Soulsby. 2015. “Tracer-Based Assessment of Flow Paths, Storage and Runoff Generation in Northern Catchments: A Review.” Hydrological Processes 29 (16): 3475–90. doi:10.1002/hyp.10412.

Thornton, Brett F., Martin Wik, and Patrick M. Crill. 2015. “Climate-Forced Changes in Available Energy and Methane Bubbling from Subarctic Lakes.” Geophysical Research Letters 42 (6): 1936–42. doi:10.1002/2015GL063189.

Tortell, Philippe D., Henry C. Bittig, Arne Körtzinger, Elizabeth M. Jones, and Mario Hoppema. 2015. “Biological and Physical Controls on N2 , O2 , and CO2 Distributions in Contrasting Southern Ocean Surface Waters.” Global Biogeochemical Cycles 29 (7): 994–1013. doi:10.1002/2014GB004975.

Tramontana, Gianluca, Kazuito Ichii, Gustau Camps-Valls, Enrico Tomelleri, and Dario Papale. 2015. “Uncertainty Analysis of Gross Primary Production Upscaling Using Random Forests, Remote Sensing and Eddy Covariance Data.” Remote Sensing of Environment 168 (October): 360–73. doi:10.1016/j.rse.2015.07.015.

Turner, A. J., D. J. Jacob, K. J. Wecht, J. D. Maasakkers, E. Lundgren, A. E. Andrews, S. C. Biraud, et al. 2015. “Estimating Global and North American Methane Emissions with High Spatial Resolution Using GOSAT Satellite Data.” Atmospheric Chemistry and Physics 15 (12): 7049–69. doi:10.5194/acp-15-7049-2015.

van Asperen, H., T. Warneke, S. Sabbatini, G. Nicolini, D. Papale, and J. Notholt. 2015. “The Role of Photo- and Thermal Degradation for CO2 and CO Fluxes in an Arid Ecosystem.” Biogeosciences 12 (13): 4161–74. doi:10.5194/bg-12-4161-2015.

van der Laan-Luijkx, I. T., I. R. van der Velde, M. C. Krol, L. V. Gatti, L. G. Domingues, C. S. C. Correia, J. B. Miller, et al. 2015. “Response of the Amazon Carbon Balance to the 2010 Drought Derived with CarbonTracker South America.” Global Biogeochemical Cycles 29 (7): 1092–1108. doi:10.1002/2014GB005082.

Vanbeveren, S.P.P., J. Schweier, G. Berhongaray, and R. Ceulemans. 2015. “Operational Short Rotation Woody Crop Plantations: Manual or Mechanised Harvesting?” Biomass and Bioenergy 72 (January): 8–18. doi:10.1016/j.biombioe.2014.11.019.

Vardag, S. N., C. Gerbig, G. Janssens-Maenhout, and I. Levin. 2015. “Estimation of Continuous Anthropogenic CO2: Model-Based Evaluation of CO2, CO, Δ13C(CO2) and Δ14C(CO2) Tracer Methods.” Atmospheric Chemistry and Physics 15 (22): 12705–29. doi:10.5194/acp-15-12705-2015.

Vardag, S. N., C. Gerbig, G. Janssens-Maenhout, and I. Levin. 2015. “Estimation of Continuous Anthropogenic CO2: Model-Based Evaluation of CO2, CO, δ13C(CO2) and Δ14C(CO2) Tracer Methods.” Atmospheric Chemistry and Physics 15 (22): 12705–29. doi:10.5194/acp-15-12705-2015.

Vardag, S. N., S. Hammer, M. Sabasch, D. W. T. Griffith, and I. Levin. 2015. “First Continuous Measurements of δ18O-CO2 in Air with a Fourier Transform Infrared Spectrometer.” Atmospheric Measurement Techniques 8 (2): 579–92. doi:10.5194/amt-8-579-2015.

Vargas, A., D. Arnold, J.A. Adame, C. Grossi, M.A. Hernández-Ceballos, and J.P. Bolivar. 2015. “Analysis of the Vertical Radon Structure at the Spanish ‘El Arenosillo’ Tower Station.” Journal of Environmental Radioactivity 139 (January): 1–17. doi:10.1016/j.jenvrad.2014.09.018.

VERLINDEN, M. S., R. FICHOT, L. S. BROECKX, B. VANHOLME, W. BOERJAN, and R. CEULEMANS. 2015. “Carbon Isotope Compositions (Δ13C) of Leaf, Wood and Holocellulose Differ among Genotypes of Poplar and between Previous Land Uses in a Short-Rotation Biomass Plantation.” Plant, Cell & Environment 38 (1): 144–56. doi:10.1111/pce.12383.

Verlinden, M.S., L.S. Broeckx, and R. Ceulemans. 2015. “First vs. Second Rotation of a Poplar Short Rotation Coppice: Above-Ground Biomass Productivity and Shoot Dynamics.” Biomass and Bioenergy 73 (February): 174–85. doi:10.1016/j.biombioe.2014.12.012.

Vollmer, Martin K., Stefan Reimann, Matthias Hill, and Dominik Brunner. 2015. “First Observations of the Fourth Generation Synthetic Halocarbons HFC-1234yf, HFC-1234ze(E), and HCFC-1233zd(E) in the Atmosphere.” Environmental Science & Technology 49 (5): 2703–8. doi:10.1021/es505123x.

Vollmer, Martin K., Tae Siek Rhee, Matt Rigby, Doris Hofstetter, Matthias Hill, Fabian Schoenenberger, and Stefan Reimann. 2015. “Modern Inhalation Anesthetics: Potent Greenhouse Gases in the Global Atmosphere.” Geophysical Research Letters 42 (5): 1606–11. doi:10.1002/2014GL062785.

Vollmer, Martin K., Matt Rigby, Johannes C. Laube, Stephan Henne, Tae Siek Rhee, Lauren J. Gooch, Angelina Wenger, et al. 2015. “Abrupt Reversal in Emissions and Atmospheric Abundance of HCFC-133a (CF 3 CH 2 Cl).” Geophysical Research Letters 42 (20): 8702–10. doi:10.1002/2015GL065846.

Vuichard, N., and D. Papale. 2015. “Filling the Gaps in Meteorological Continuous Data Measured at FLUXNET Sites with ERA-Interim Reanalysis.” Earth System Science Data 7 (2): 157–71. doi:10.5194/essd-7-157-2015.

Wingate, L., J. Ogée, E. Cremonese, G. Filippa, T. Mizunuma, M. Migliavacca, C. Moisy, et al. 2015. “Interpreting Canopy Development and Physiology Using a European Phenology Camera Network at Flux Sites.” Biogeosciences 12 (20): 5995–6015. doi:10.5194/bg-12-5995-2015.

Wohlfahrt, G., C. Amelynck, C. Ammann, A. Arneth, I. Bamberger, A. H. Goldstein, L. Gu, et al. 2015. “An Ecosystem-Scale Perspective of the Net Land Methanol Flux: Synthesis of Micrometeorological Flux Measurements.” Atmospheric Chemistry and Physics 15 (13): 7413–27. doi:10.5194/acp-15-7413-2015.

Yver Kwok, C., O. Laurent, A. Guemri, C. Philippon, B. Wastine, C. W. Rella, C. Vuillemin, et al. 2015. “Comprehensive Laboratory and Field Testing of Cavity Ring-down Spectroscopy Analyzers Measuring H2O, CO2, CH4 and CO.” Atmospheric Measurement Techniques 8 (9): 3867–92. doi:10.5194/amt-8-3867-2015.

Zazzeri, G., D. Lowry, R.E. Fisher, J.L. France, M. Lanoisellé, and E.G. Nisbet. 2015. “Plume Mapping and Isotopic Characterisation of Anthropogenic Methane Sources.” Atmospheric Environment 110 (June): 151–62. doi:10.1016/j.atmosenv.2015.03.029.

Zenone, Terenzio, Milan Fischer, Nicola Arriga, Laura S. Broeckx, Melanie S. Verlinden, Stefan Vanbeveren, Donatella Zona, and Reinhart Ceulemans. 2015. “Biophysical Drivers of the Carbon Dioxide, Water Vapor, and Energy Exchanges of a Short-Rotation Poplar Coppice.” Agricultural and Forest Meteorology 209–210 (September): 22–35. doi:10.1016/j.agrformet.2015.04.009.

Zhao, Zhiming, Paul Martin, Paola Grosso, Wouter Los, Cees de Laat, Keith Jeffrey, Alex Hardisty, et al. 2015. “Reference Model Guided System Design and Implementation for Interoperable Environmental Research Infrastructures.” In 2015 IEEE 11th International Conference on E-Science, 551–56. IEEE. doi:10.1109/eScience.2015.41.

# 2014

Ago, Expedit Evariste, Euloge Kossi Agbossou, Sylvie Galle, Jean-Martial Cohard, Bernard Heinesch, and Marc Aubinet. 2014. “Long Term Observations of Carbon Dioxide Exchange over Cultivated Savanna under a Sudanian Climate in Benin (West Africa).” Agricultural and Forest Meteorology 197 (October): 13–25. doi:10.1016/j.agrformet.2014.06.005.

Agustí-Panareda, A., S. Massart, F. Chevallier, S. Boussetta, G. Balsamo, A. Beljaars, P. Ciais, et al. 2014. “Forecasting Global Atmospheric CO2.” Atmospheric Chemistry and Physics Discussions 14 (9): 13909–62. doi:10.5194/acpd-14-13909-2014.

Arnold, Tim, Diane J. Ivy, Christina M. Harth, Martin K. Vollmer, Jens Mühle, Peter K. Salameh, L. Paul Steele, et al. 2014. “HFC-43-10mee Atmospheric Abundances and Global Emission Estimates.” Geophysical Research Letters 41 (6): 2228–35. doi:10.1002/2013GL059143.

Baatz, R., H.R. Bogena, H.-J. Hendricks Franssen, J.A. Huisman, W. Qu, C. Montzka, and H. Vereecken. 2014. “Calibration of a Catchment Scale Cosmic-Ray Probe Network: A Comparison of Three Parameterization Methods.” Journal of Hydrology 516 (August): 231–44. doi:10.1016/j.jhydrol.2014.02.026.

Babst, Flurin, Olivier Bouriaud, Dario Papale, Bert Gielen, Ivan A. Janssens, Eero Nikinmaa, Andreas Ibrom, et al. 2014. “Above-Ground Woody Carbon Sequestration Measured from Tree Rings Is Coherent with Net Ecosystem Productivity at Five Eddy-Covariance Sites.” New Phytologist 201 (4): 1289–1303. doi:10.1111/nph.12589.

Babst, Flurin, Olivier Bouriaud, Dario Papale, Bert Gielen, Ivan A. Janssens, Eero Nikinmaa, Andreas Ibrom, et al. 2014. “Above-Ground Woody Carbon Sequestration Measured from Tree Rings Is Coherent with Net Ecosystem Productivity at Five Eddy-Covariance Sites.” New Phytologist 201 (4): 1289–1303. doi:10.1111/nph.12589.

Bakker, D. C. E., B. Pfeil, K. Smith, S. Hankin, A. Olsen, S. R. Alin, C. Cosca, et al. 2014. “An Update to the Surface Ocean CO2 Atlas (SOCAT Version 2).” Earth System Science Data 6 (1): 69–90. doi:10.5194/essd-6-69-2014.

Balzarolo, M., S. Boussetta, G. Balsamo, A. Beljaars, F. Maignan, J.-C. Calvet, S. Lafont, et al. 2014. “Evaluating the Potential of Large-Scale Simulations to Predict Carbon Fluxes of Terrestrial Ecosystems over a European Eddy Covariance Network.” Biogeosciences 11 (10): 2661–78. doi:10.5194/bg-11-2661-2014.

Bozhinova, D., M. K. van der Molen, I. R. van der Velde, M. C. Krol, S. van der Laan, H. A. J. Meijer, and W. Peters. 2014. “Simulating the Integrated Summertime Δ14CO2 Signature from Anthropogenic Emissions over Western Europe.” Atmospheric Chemistry and Physics 14 (14): 7273–90. doi:10.5194/acp-14-7273-2014.

Brilli, Federico, Beniamino Gioli, Paolo Ciccioli, Donatella Zona, Francesco Loreto, Ivan A. Janssens, and Reinhart Ceulemans. 2014. “Proton Transfer Reaction Time-of-Flight Mass Spectrometric (PTR-TOF-MS) Determination of Volatile Organic Compounds (VOCs) Emitted from a Biomass Fire Developed under Stable Nocturnal Conditions.” Atmospheric Environment 97 (November): 54–67. doi:10.1016/j.atmosenv.2014.08.007.

Brilli, Federico, Beniamino Gioli, Donatella Zona, Emanuele Pallozzi, Terenzio Zenone, Gerardo Fratini, Carlo Calfapietra, Francesco Loreto, Ivan A. Janssens, and Reinhart Ceulemans. 2014. “Simultaneous Leaf- and Ecosystem-Level Fluxes of Volatile Organic Compounds from a Poplar-Based SRC Plantation.” Agricultural and Forest Meteorology 187 (April): 22–35. doi:10.1016/j.agrformet.2013.11.006.

Broeckx, L. S., R. Fichot, M. S. Verlinden, and R. Ceulemans. 2014. “Seasonal Variations in Photosynthesis, Intrinsic Water-Use Efficiency and Stable Isotope Composition of Poplar Leaves in a Short-Rotation Plantation.” Tree Physiology 34 (7): 701–15. doi:10.1093/treephys/tpu057.

Broeckx, Laura S., Melanie S. Verlinden, Gonzalo Berhongaray, Donatella Zona, Régis Fichot, and Reinhart Ceulemans. 2014. “The Effect of a Dry Spring on Seasonal Carbon Allocation and Vegetation Dynamics in a Poplar Bioenergy Plantation.” GCB Bioenergy 6 (5): 473–87. doi:10.1111/gcbb.12087.

Budishchev, A., Y. Mi, J. van Huissteden, L. Belelli-Marchesini, G. Schaepman-Strub, F. J. W. Parmentier, G. Fratini, A. Gallagher, T. C. Maximov, and A. J. Dolman. 2014. “Evaluation of a Plot-Scale Methane Emission Model Using Eddy Covariance Observations and Footprint Modelling.” Biogeosciences 11 (17): 4651–64. doi:10.5194/bg-11-4651-2014.

Camino-Serrano, Marta, Bert Gielen, Sebastiaan Luyssaert, Philippe Ciais, Sara Vicca, Bertrand Guenet, Bruno De Vos, et al. 2014. “Linking Variability in Soil Solution Dissolved Organic Carbon to Climate, Soil Type, and Vegetation Type.” Global Biogeochemical Cycles 28 (5): 497–509. doi:10.1002/2013GB004726.

Churakova, Olga V., Werner Eugster, Sebastian Zielis, Paolo Cherubini, Sophia Etzold, Matthias Saurer, Rolf Siegwolf, and Nina Buchmann. 2014. “Increasing Relevance of Spring Temperatures for Norway Spruce Trees in Davos, Switzerland, after the 1950s.” Trees 28 (1): 183–91. doi:10.1007/s00468-013-0941-6.

Cowan, N. J., D. Famulari, P. E. Levy, M. Anderson, D. S. Reay, and U. M. Skiba. 2014. “Investigating Uptake of N2O in Agricultural Soils Using a High-Precision Dynamic Chamber Method.” Atmospheric Measurement Techniques 7 (12): 4455–62. doi:10.5194/amt-7-4455-2014.

Deng, F., D. B. A. Jones, D. K. Henze, N. Bousserez, K. W. Bowman, J. B. Fisher, R. Nassar, et al. 2014. “Inferring Regional Sources and Sinks of Atmospheric CO2 from GOSAT XCO2 Data.” Atmospheric Chemistry and Physics 14 (7): 3703–27. doi:10.5194/acp-14-3703-2014.

Deng, J., C. Li, S. Frolking, Y. Zhang, K. Bäckstrand, and P. Crill. 2014. “Assessing Effects of Permafrost Thaw on C Fluxes Based on Multiyear Modeling across a Permafrost Thaw Gradient at Stordalen, Sweden.” Biogeosciences 11 (17): 4753–70. doi:10.5194/bg-11-4753-2014.

Dils, B., M. Buchwitz, M. Reuter, O. Schneising, H. Boesch, R. Parker, S. Guerlet, et al. 2014. “The Greenhouse Gas Climate Change Initiative (GHG-CCI): Comparative Validation of GHG-CCI SCIAMACHY/ENVISAT and TANSO-FTS/GOSAT CO2 and CH4 Retrieval Algorithm Products with Measurements from the TCCON.” Atmospheric Measurement Techniques 7 (6): 1723–44. doi:10.5194/amt-7-1723-2014.

Etminan, Maryam, Eleanor Highwood, Johannes Laube, Robert McPheat, George Marston, Keith Shine, and Kevin Smith. 2014. “Infrared Absorption Spectra, Radiative Efficiencies, and Global Warming Potentials of Newly-Detected Halogenated Compounds: CFC-113a, CFC-112 and HCFC-133a.” Atmosphere 5 (3): 473–83. doi:10.3390/atmos5030473.

Eyer, Simon, Nicholas P. Stadie, Andreas Borgschulte, Lukas Emmenegger, and Joachim Mohn. 2014. “Methane Preconcentration by Adsorption: A Methodology for Materials and Conditions Selection.” Adsorption 20 (5–6): 657–66. doi:10.1007/s10450-014-9609-9.

Fady, Bruno, Alain Benard, Christian Pichot, Marianne Peiffer, Jean Michel Leban, and Erwin Dreyer. 2014. “The Open Data Debate: A Need for Accessible and Shared Data in Forest Science.” Annals of Forest Science 71 (5): 523–25. doi:10.1007/s13595-014-0375-3.

Fernández-Martínez, M., S. Vicca, I. A. Janssens, J. Sardans, S. Luyssaert, M. Campioli, F. S. Chapin III, et al. 2014. “Nutrient Availability as the Key Regulator of Global Forest Carbon Balance.” Nature Climate Change 4 (6): 471–76. doi:10.1038/nclimate2177.

Fietzek, Peer, Björn Fiedler, Tobias Steinhoff, and Arne Körtzinger. 2014. “In Situ Quality Assessment of a Novel Underwater PCO2 Sensor Based on Membrane Equilibration and NDIR Spectrometry.” Journal of Atmospheric and Oceanic Technology 31 (1): 181–96. doi:10.1175/JTECH-D-13-00083.1.

Fraser, A., P. I. Palmer, L. Feng, H. Bösch, R. Parker, E. J. Dlugokencky, P. B. Krummel, and R. L. Langenfelds. 2014. “Estimating Regional Fluxes of CO2 and CH4 Using Space-Borne Observations of XCH4 : XCO2.” Atmospheric Chemistry and Physics Discussions 14 (11): 15867–94. doi:10.5194/acpd-14-15867-2014.

Fraser, Paul J., Bronwyn L. Dunse, Alistair J. Manning, Sean Walsh, R. Hsiang J. Wang, Paul B. Krummel, L. Paul Steele, et al. 2014. “Australian Carbon Tetrachloride Emissions in a Global Context.” Environmental Chemistry 11 (1): 77. doi:10.1071/EN13171.

Fratini, G., D. K. McDermitt, and D. Papale. 2014. “Eddy-Covariance Flux Errors Due to Biases in Gas Concentration Measurements: Origins, Quantification and Correction.” Biogeosciences 11 (4): 1037–51. doi:10.5194/bg-11-1037-2014.

Galli, A., S. Guerlet, A. Butz, I. Aben, H. Suto, A. Kuze, N. M. Deutscher, et al. 2014. “The Impact of Spectral Resolution on Satellite Retrieval Accuracy of CO2 and CH4.” Atmospheric Measurement Techniques 7 (4): 1105–19. doi:10.5194/amt-7-1105-2014.

Goffin, Stéphanie, Marc Aubinet, Martin Maier, Caroline Plain, Helmer Schack-Kirchner, and Bernard Longdoz. 2014. “Characterization of the Soil CO2 Production and Its Carbon Isotope Composition in Forest Soil Layers Using the Flux-Gradient Approach.” Agricultural and Forest Meteorology 188 (May): 45–57. doi:10.1016/j.agrformet.2013.11.005.

Graf, Alexander, Heye R. Bogena, Clemens Drüe, Horst Hardelauf, Thomas Pütz, Günther Heinemann, and Harry Vereecken. 2014. “Spatiotemporal Relations between Water Budget Components and Soil Water Content in a Forested Tributary Catchment.” Water Resources Research 50 (6): 4837–57. doi:10.1002/2013WR014516.

Griffiths, A. D., F. Conen, E. Weingartner, L. Zimmermann, S. D. Chambers, A. G. Williams, and M. Steinbacher. 2014. “Surface-to-Mountaintop Transport Characterised by Radon Observations at the Jungfraujoch.” Atmospheric Chemistry and Physics 14 (23): 12763–79. doi:10.5194/acp-14-12763-2014.

Hall, B. D., A. Engel, J. Mühle, J. W. Elkins, F. Artuso, E. Atlas, M. Aydin, et al. 2014. “Results from the International Halocarbons in Air Comparison Experiment (IHALACE).” Atmospheric Measurement Techniques 7 (2): 469–90. doi:10.5194/amt-7-469-2014.

Heiskanen, JOUNI J., IVAN Mammarella, SAMI Haapanala, JUKKA Pumpanen, TIMO Vesala, SALLY MacIntyre, and ANNE Ojala. 2014. “Effects of Cooling and Internal Wave Motions on Gas Transfer Coefficients in a Boreal Lake.” Tellus B 66 (0). doi:10.3402/tellusb.v66.22827.

Hirsikko, A., E. J. O’Connor, M. Komppula, K. Korhonen, A. Pfüller, E. Giannakaki, C. R. Wood, et al. 2014. “Observing Wind, Aerosol Particles, Cloud and Precipitation: Finland’s New Ground-Based Remote-Sensing Network.” Atmospheric Measurement Techniques 7 (5): 1351–75. doi:10.5194/amt-7-1351-2014.

Hommeltenberg, J., H. P. Schmid, M. Drösler, and P. Werle. 2014. “Can a Bog Drained for Forestry Be a Stronger Carbon Sink than a Natural Bog Forest?” Biogeosciences 11 (13): 3477–93. doi:10.5194/bg-11-3477-2014.

Jérôme, Elisabeth, Yves Beckers, Bernard Bodson, Bernard Heinesch, Christine Moureaux, and Marc Aubinet. 2014. “Impact of Grazing on Carbon Dioxide Exchanges in an Intensively Managed Belgian Grassland.” Agriculture, Ecosystems & Environment 194 (September): 7–16. doi:10.1016/j.agee.2014.04.021.

Kasurinen, Ville, Knut Alfredsen, Pasi Kolari, Ivan Mammarella, Pavel Alekseychik, Janne Rinne, Timo Vesala, et al. 2014. “Latent Heat Exchange in the Boreal and Arctic Biomes.” Global Change Biology 20 (11): 3439–56. doi:10.1111/gcb.12640.

Kretschmer, R., C. Gerbig, U. Karstens, G. Biavati, A. Vermeulen, F. Vogel, S. Hammer, and K. U. Totsche. 2014. “Impact of Optimized Mixing Heights on Simulated Regional Atmospheric Transport of CO2.” Atmospheric Chemistry and Physics 14 (14): 7149–72. doi:10.5194/acp-14-7149-2014.

Kretschmer, R., C. Gerbig, U. Karstens, G. Biavati, A. Vermeulen, F. Vogel, S. Hammer, and K. U. Totsche. 2014. “Impact of Optimized Mixing Heights on Simulated Regional Atmospheric Transport of CO2.” Atmospheric Chemistry and Physics 14 (14): 7149–72. doi:10.5194/acp-14-7149-2014.

Kulmala, Liisa, Hermanni Aaltonen, Frank Berninger, Antti-Jussi Kieloaho, Janne Levula, Jaana Bäck, Pertti Hari, et al. 2014. “Changes in Biogeochemistry and Carbon Fluxes in a Boreal Forest after the Clear-Cutting and Partial Burning of Slash.” Agricultural and Forest Meteorology 188 (May): 33–44. doi:10.1016/j.agrformet.2013.12.003.

Laube, Johannes C., Mike J. Newland, Christopher Hogan, Carl A. M. Brenninkmeijer, Paul J. Fraser, Patricia Martinerie, David E. Oram, et al. 2014. “Newly Detected Ozone-Depleting Substances in the Atmosphere.” Nature Geoscience 7 (4): 266–69. doi:10.1038/ngeo2109.

Le Quéré, C., G. P. Peters, R. J. Andres, R. M. Andrew, T. A. Boden, P. Ciais, P. Friedlingstein, et al. 2014. “Global Carbon Budget 2013.” Earth System Science Data 6 (1): 235–63. doi:10.5194/essd-6-235-2014.

Luyssaert, Sebastiaan, Mathilde Jammet, Paul C. Stoy, Stephan Estel, Julia Pongratz, Eric Ceschia, Galina Churkina, et al. 2014. “Land Management and Land-Cover Change Have Impacts of Similar Magnitude on Surface Temperature.” Nature Climate Change 4 (5): 389–93. doi:10.1038/nclimate2196.

Masarie, K. A., W. Peters, A. R. Jacobson, and P. P. Tans. 2014. “ObsPack: A Framework for the Preparation, Delivery, and Attribution of Atmospheric Greenhouse Gas Measurements.” Earth System Science Data 6 (2): 375–84. doi:10.5194/essd-6-375-2014.

Maselli, Fabio, Dario Papale, Marta Chiesi, Giorgio Matteucci, Luca Angeli, Antonio Raschi, and Guenther Seufert. 2014. “Operational Monitoring of Daily Evapotranspiration by the Combination of MODIS NDVI and Ground Meteorological Data: Application and Evaluation in Central Italy.” Remote Sensing of Environment 152 (September): 279–90. doi:10.1016/j.rse.2014.06.021.

McCalley, Carmody K., Ben J. Woodcroft, Suzanne B. Hodgkins, Richard A. Wehr, Eun-Hae Kim, Rhiannon Mondav, Patrick M. Crill, et al. 2014. “Methane Dynamics Regulated by Microbial Community Response to Permafrost Thaw.” Nature 514 (7523): 478–81. doi:10.1038/nature13798.

Nauta, Ake L., Monique M. P. D. Heijmans, Daan Blok, Juul Limpens, Bo Elberling, Angela Gallagher, Bingxi Li, et al. 2014. “Permafrost Collapse after Shrub Removal Shifts Tundra Ecosystem to a Methane Source.” Nature Climate Change 5 (1): 67–70. doi:10.1038/nclimate2446.

Nisbet, E. G., E. J. Dlugokencky, and P. Bousquet. 2014. “Methane on the Rise--Again.” Science 343 (6170): 493–95. doi:10.1126/science.1247828.

O’Doherty, S., M. Rigby, J. Mühle, D. J. Ivy, B. R. Miller, D. Young, P. G. Simmonds, et al. 2014. “Global Emissions of HFC-143a (CH3CF3) and HFC-32 (CH2F2) from in Situ and Air Archive Atmospheric Observations.” Atmospheric Chemistry and Physics 14 (17): 9249–58. doi:10.5194/acp-14-9249-2014.

Öquist, M. G., K. Bishop, A. Grelle, L. Klemedtsson, S. J. Köhler, H. Laudon, A. Lindroth, M. Ottosson Löfvenius, M. B. Wallin, and M. B. Nilsson. 2014. “The Full Annual Carbon Balance of Boreal Forests Is Highly Sensitive to Precipitation.” Environmental Science & Technology Letters 1 (7): 315–19. doi:10.1021/ez500169j.

O’Shea, Sebastian J., Grant Allen, Zoë L. Fleming, Stephane J.-B. Bauguitte, Carl J. Percival, Martin W. Gallagher, James Lee, Carole Helfter, and Eiko Nemitz. 2014. “Area Fluxes of Carbon Dioxide, Methane, and Carbon Monoxide Derived from Airborne Measurements around Greater London: A Case Study during Summer 2012.” Journal of Geophysical Research: Atmospheres 119 (8): 4940–52. doi:10.1002/2013JD021269.

Ostler, A., R. Sussmann, M. Rettinger, N. M. Deutscher, S. Dohe, F. Hase, N. Jones, M. Palm, and B.-M. Sinnhuber. 2014. “Multistation Intercomparison of Column-Averaged Methane from NDACC and TCCON: Impact of Dynamical Variability.” Atmospheric Measurement Techniques 7 (12): 4081–4101. doi:10.5194/amt-7-4081-2014.

Otto, J., D. Berveiller, F.-M. Bréon, N. Delpierre, G. Geppert, A. Granier, W. Jans, et al. 2014. “Forest Summer Albedo Is Sensitive to Species and Thinning: How Should We Account for This in Earth System Models?” Biogeosciences 11 (8): 2411–27. doi:10.5194/bg-11-2411-2014.

Pastorello, Gilberto, Deb Agarwal, Dario Papale, Taghrid Samak, Carlo Trotta, Alessio Ribeca, Cristina Poindexter, et al. 2014. “Observational Data Patterns for Time Series Data Quality Assessment.” In 2014 IEEE 10th International Conference on E-Science, 271–78. IEEE. doi:10.1109/eScience.2014.45.

Peltola, O., A. Hensen, C. Helfter, L. Belelli Marchesini, F. C. Bosveld, W. C. M. van den Bulk, J. a. Elbers, et al. 2014. “Evaluating the Performance of Commonly Used Gas Analysers for Methane Eddy Covariance Flux Measurements: The InGOS Inter-Comparison Field Experiment.” Biogeosciences 11 (12): 3163–86. doi:10.5194/bg-11-3163-2014.

Pumpanen, Jukka, Aki Lindén, Heli Miettinen, Pasi Kolari, Hannu Ilvesniemi, Ivan Mammarella, Pertti Hari, et al. 2014. “Precipitation and Net Ecosystem Exchange Are the Most Important Drivers of DOC Flux in Upland Boreal Catchments.” Journal of Geophysical Research: Biogeosciences 119 (9): 1861–78. doi:10.1002/2014JG002705.

Rannik, Ü., S. Haapanala, N. J. Shurpali, I. Mammarella, S. Lind, N. Hyvönen, O. Peltola, M. Zahniser, P. J. Martikainen, and T. Vesala. 2014. “Intercomparison of Fast Response Commercial Gas Analysers for Nitrous Oxide Flux Measurements under Field Conditions.” Biogeosciences Discussions 11 (8): 11747–83. doi:10.5194/bgd-11-11747-2014.

Reuter, M., M. Buchwitz, M. Hilker, J. Heymann, O. Schneising, D. Pillai, H. Bovensmann, et al. 2014. “Satellite-Inferred European Carbon Sink Larger than Expected.” Atmospheric Chemistry and Physics 14 (24): 13739–53. doi:10.5194/acp-14-13739-2014.

Rey, A., L. Belelli-Marchesini, G. Etiope, D. Papale, E. Canfora, R. Valentini, and E. Pegoraro. 2014. “Partitioning the Net Ecosystem Carbon Balance of a Semiarid Steppe into Biological and Geological Components.” Biogeochemistry 118 (1–3): 83–101. doi:10.1007/s10533-013-9907-4.

RÓŻAŃSKI, Kazimierz, Jarosław NĘCKI, Łukasz CHMURA, Ireneusz ŚLIWKA, Mirosław ZIMNOCH, Jarosław BIELEWSKI, Michał GAŁKOWSKI, Jakub BARTYZEL, and Janusz ROSIEK. 2014. “Anthropogenic Changes of CO2, CH4, N2O, CFCl3, CF2Cl2, CCl2FCClF2, CHCl3, CH3CCl3, CCl4, SF6 and SF5CF3 Mixing Ratios in the Atmosphere over Southern Poland.” Geological Quarterly, April. doi:10.7306/gq.1163.

Saad, K. M., D. Wunch, G. C. Toon, P. Bernath, C. Boone, B. Connor, N. M. Deutscher, et al. 2014. “Derivation of Tropospheric Methane from TCCON CH4 and HF Total Column Observations.” Atmospheric Measurement Techniques 7 (9): 2907–18. doi:10.5194/amt-7-2907-2014.

Saikawa, E., R. G. Prinn, E. Dlugokencky, K. Ishijima, G. S. Dutton, B. D. Hall, R. Langenfelds, et al. 2014. “Global and Regional Emissions Estimates for N2O.” Atmospheric Chemistry and Physics 14 (9): 4617–41. doi:10.5194/acp-14-4617-2014.

Schneider, Bernd, Wanda Gülzow, Bernd Sadkowiak, and Gregor Rehder. 2014. “Detecting Sinks and Sources of CO2 and CH4 by Ferrybox-Based Measurements in the Baltic Sea: Three Case Studies.” Journal of Marine Systems 140 (December): 13–25. doi:10.1016/j.jmarsys.2014.03.014.

Sepúlveda, E., M. Schneider, F. Hase, S. Barthlott, D. Dubravica, O. E. García, A. Gomez-Pelaez, et al. 2014. “Tropospheric CH4 Signals as Observed by NDACC FTIR at Globally Distributed Sites and Comparison to GAW Surface in Situ Measurements.” Atmospheric Measurement Techniques 7 (7): 2337–60. doi:10.5194/amt-7-2337-2014.

Sepúlveda, E., M. Schneider, F. Hase, S. Barthlott, D. Dubravica, O. E. García, A. Gomez-Pelaez, et al. 2014. “Tropospheric CH4 Signals as Observed by NDACC FTIR at Globally Distributed Sites and Comparison to GAW Surface in Situ Measurements.” Atmospheric Measurement Techniques 7 (7): 2337–60. doi:10.5194/amt-7-2337-2014.

Smallman, T. L., M. Williams, and J. B. Moncrieff. 2014. “Can Seasonal and Interannual Variation in Landscape CO2 Fluxes Be Detected by Atmospheric Observations of CO2 Concentrations Made at a Tall Tower?” Biogeosciences 11 (3): 735–47. doi:10.5194/bg-11-735-2014.

Tang, J., S. Luyssaert, A. D. Richardson, W. Kutsch, and I. A. Janssens. 2014. “Steeper Declines in Forest Photosynthesis than Respiration Explain Age-Driven Decreases in Forest Growth.” Proceedings of the National Academy of Sciences 111 (24): 8856–60. doi:10.1073/pnas.1320761111.

Thompson, R. L., F. Chevallier, A. M. Crotwell, G. Dutton, R. L. Langenfelds, R. G. Prinn, R. F. Weiss, et al. 2014. “Nitrous Oxide Emissions 1999 to 2009 from a Global Atmospheric Inversion.” Atmospheric Chemistry and Physics 14 (4): 1801–17. doi:10.5194/acp-14-1801-2014.

Thompson, R. L., K. Ishijima, E. Saikawa, M. Corazza, U. Karstens, P. K. Patra, P. Bergamaschi, et al. 2014. “TransCom N2O Model Inter-Comparison – Part 2: Atmospheric Inversion Estimates of N2O Emissions.” Atmospheric Chemistry and Physics 14 (12): 6177–94. doi:10.5194/acp-14-6177-2014.

Thompson, R. L., K. Ishijima, E. Saikawa, M. Corazza, U. Karstens, P. K. Patra, P. Bergamaschi, et al. 2014. “TransCom N2O Model Inter-Comparison – Part 2: Atmospheric Inversion Estimates of N2O Emissions.” Atmospheric Chemistry and Physics 14 (12): 6177–94. doi:10.5194/acp-14-6177-2014.

Thompson, R. L., P. K. Patra, K. Ishijima, E. Saikawa, M. Corazza, U. Karstens, C. Wilson, et al. 2014. “TransCom N2O Model Inter-Comparison – Part 1: Assessing the Influence of Transport and Surface Fluxes on Tropospheric N2O Variability.” Atmospheric Chemistry and Physics 14 (8): 4349–68. doi:10.5194/acp-14-4349-2014.

Ulfsbo, Adam, Nicolas Cassar, Meri Korhonen, Steven van Heuven, Mario Hoppema, Gerhard Kattner, and Leif G. Anderson. 2014. “Late Summer Net Community Production in the Central Arctic Ocean Using Multiple Approaches.” Global Biogeochemical Cycles 28 (10): 1129–48. doi:10.1002/2014GB004833.

Valentini, R., A. Arneth, A. Bombelli, S. Castaldi, R. Cazzolla Gatti, F. Chevallier, P. Ciais, et al. 2014. “A Full Greenhouse Gases Budget of Africa: Synthesis, Uncertainties, and Vulnerabilities.” Biogeosciences 11 (2): 381–407. doi:10.5194/bg-11-381-2014.

van der Velde, I. R., J. B. Miller, K. Schaefer, G. R. van der Werf, M. C. Krol, and W. Peters. 2014. “Terrestrial Cycling of 13CO2 by Photosynthesis, Respiration, and Biomass Burning in SiBCASA.” Biogeosciences 11 (23): 6553–71. doi:10.5194/bg-11-6553-2014.

Vardag, S. N., S. Hammer, S. O’Doherty, T. G. Spain, B. Wastine, A. Jordan, and I. Levin. 2014. “Comparisons of Continuous Atmospheric CH4, CO2 and N2O Measurements – Results from a Travelling Instrument Campaign at Mace Head.” Atmospheric Chemistry and Physics 14 (16): 8403–18. doi:10.5194/acp-14-8403-2014.

Wang, Z., N. M. Deutscher, T. Warneke, J. Notholt, B. Dils, D. W. T. Griffith, M. Schmidt, M. Ramonet, and C. Gerbig. 2014. “Retrieval of Tropospheric Column-Averaged CH4 Mole Fraction by Solar Absorption FTIR-Spectrometry Using N2O as a Proxy.” Atmospheric Measurement Techniques 7 (10): 3295–3305. doi:10.5194/amt-7-3295-2014.

Weaver, C., C. Kiemle, S. R. Kawa, T. Aalto, J. Necki, M. Steinbacher, J. Arduini, F. Apadula, H. Berkhout, and J. Hatakka. 2014. “Retrieval of Methane Source Strengths in Europe Using a Simple Modeling Approach to Assess the Potential of Spaceborne Lidar Observations.” Atmospheric Chemistry and Physics 14 (5): 2625–37. doi:10.5194/acp-14-2625-2014.

Wecht, K. J., D. J. Jacob, M. P. Sulprizio, G. W. Santoni, S. C. Wofsy, R. Parker, H. Bösch, and J. Worden. 2014. “Spatially Resolving Methane Emissions in California: Constraints from the CalNex Aircraft Campaign and from Present (GOSAT, TES) and Future (TROPOMI, Geostationary) Satellite Observations.” Atmospheric Chemistry and Physics 14 (15): 8173–84. doi:10.5194/acp-14-8173-2014.

Wei, Suhua, Chuixiang Yi, George Hendrey, Timothy Eaton, Gerald Rustic, Shaoqiang Wang, Heping Liu, et al. 2014. “Data-Based Perfect-Deficit Approach to Understanding Climate Extremes and Forest Carbon Assimilation Capacity.” Environmental Research Letters 9 (6): 065002. doi:10.1088/1748-9326/9/6/065002.

Yuan, Wenping, Wenwen Cai, Shuguang Liu, Wenjie Dong, Jiquan Chen, M. Altaf Arain, Peter D. Blanken, et al. 2014. “Vegetation-Specific Model Parameters Are Not Required for Estimating Gross Primary Production.” Ecological Modelling 292 (November): 1–10. doi:10.1016/j.ecolmodel.2014.08.017.

Zhang, H. F., B. Z. Chen, T. Machida, H. Matsueda, Y. Sawa, Y. Fukuyama, R. Langenfelds, et al. 2014. “Estimating Asian Terrestrial Carbon Fluxes from CONTRAIL Aircraft and Surface CO2 Observations for the Period 2006–2010.” Atmospheric Chemistry and Physics 14 (11): 5807–24. doi:10.5194/acp-14-5807-2014.

Zhang, H. F., B. Z. Chen, I. T. van der Laan-Luijkx, J. Chen, G. Xu, J. W. Yan, L. X. Zhou, Y. Fukuyama, P. P. Tans, and W. Peters. 2014. “Net Terrestrial CO 2 Exchange over China during 2001-2010 Estimated with an Ensemble Data Assimilation System for Atmospheric CO 2.” Journal of Geophysical Research: Atmospheres 119 (6): 3500–3515. doi:10.1002/2013JD021297.

Zielis, S., S. Etzold, R. Zweifel, W. Eugster, M. Haeni, and N. Buchmann. 2014. “NEP of a Swiss Subalpine Forest Is Significantly Driven Not Only by Current but Also by Previous Year’s Weather.” Biogeosciences 11 (6): 1627–35. doi:10.5194/bg-11-1627-2014.

Zona, D., B. Gioli, S. Fares, T. De Groote, K. Pilegaard, A. Ibrom, and R. Ceulemans. 2014. “Environmental Controls on Ozone Fluxes in a Poplar Plantation in Western Europe.” Environmental Pollution 184 (January): 201–10. doi:10.1016/j.envpol.2013.08.032.

# 2013

Alekseychik, P., I. Mammarella, S. Launiainen, Ü. Rannik, and T. Vesala. 2013. “Evolution of the Nocturnal Decoupled Layer in a Pine Forest Canopy.” Agricultural and Forest Meteorology 174–175 (June): 15–27. doi:10.1016/j.agrformet.2013.01.011.

Arévalo-Martínez, D. L., M. Beyer, M. Krumbholz, I. Piller, A. Kock, T. Steinhoff, A. Körtzinger, and H. W. Bange. 2013. “A New Method for Continuous Measurements of Oceanic and Atmospheric N2O, CO and CO2: Performance of off-Axis Integrated Cavity Output Spectroscopy (OA-ICOS) Coupled to Non-Dispersive Infrared Detection (NDIR).” Ocean Science 9 (6): 1071–87. doi:10.5194/os-9-1071-2013.

Arias-Navarro, Cristina, Eugenio Díaz-Pinés, Ralf Kiese, Todd S. Rosenstock, Mariana C. Rufino, David Stern, Henry Neufeldt, Louis V. Verchot, and Klaus Butterbach-Bahl. 2013. “Gas Pooling: A Sampling Technique to Overcome Spatial Heterogeneity of Soil Carbon Dioxide and Nitrous Oxide Fluxes.” Soil Biology and Biochemistry 67 (December): 20–23. doi:10.1016/j.soilbio.2013.08.011.

Barr, A.G., A.D. Richardson, D.Y. Hollinger, D. Papale, M.A. Arain, T.A. Black, G. Bohrer, et al. 2013. “Use of Change-Point Detection for Friction–velocity Threshold Evaluation in Eddy-Covariance Studies.” Agricultural and Forest Meteorology 171–172 (April): 31–45. doi:10.1016/j.agrformet.2012.11.023.

Berchet, A., I. Pison, F. Chevallier, P. Bousquet, S. Conil, M. Geever, T. Laurila, et al. 2013. “Towards Better Error Statistics for Atmospheric Inversions of Methane Surface Fluxes.” Atmospheric Chemistry and Physics 13 (14): 7115–32. doi:10.5194/acp-13-7115-2013.

Berhongaray, G., O. El Kasmioui, and R. Ceulemans. 2013. “Comparative Analysis of Harvesting Machines on an Operational High-Density Short Rotation Woody Crop (SRWC) Culture: One-Process versus Two-Process Harvest Operation.” Biomass and Bioenergy 58 (November): 333–42. doi:10.1016/j.biombioe.2013.07.003.

Berhongaray, G., J. S. King, I. A. Janssens, and R. Ceulemans. 2013. “An Optimized Fine Root Sampling Methodology Balancing Accuracy and Time Investment.” Plant and Soil 366 (1–2): 351–61. doi:10.1007/s11104-012-1438-6.

Berhongaray, Gonzalo, I. A. Janssens, J. S. King, and R. Ceulemans. 2013. “Fine Root Biomass and Turnover of Two Fast-Growing Poplar Genotypes in a Short-Rotation Coppice Culture.” Plant and Soil 373 (1–2): 269–83. doi:10.1007/s11104-013-1778-x.

Bhullar, Gurbir S, Majid Iravani, Peter J Edwards, and Harry Olde Venterink. 2013. “Methane Transport and Emissions from Soil as Affected by Water Table and Vascular Plants.” BMC Ecology 13 (1): 32. doi:10.1186/1472-6785-13-32.

Boesch, H., N. M. Deutscher, T. Warneke, K. Byckling, A. J. Cogan, D. W. T. Griffith, J. Notholt, R. J. Parker, and Z. Wang. 2013. “HDO/H2O Ratio Retrievals from GOSAT.” Atmospheric Measurement Techniques 6 (3): 599–612. doi:10.5194/amt-6-599-2013.

Boussetta, Souhail, Gianpaolo Balsamo, Anton Beljaars, Anna-Agusti Panareda, Jean-Christophe Calvet, Cor Jacobs, Bart van den Hurk, et al. 2013. “Natural Land Carbon Dioxide Exchanges in the ECMWF Integrated Forecasting System: Implementation and Offline Validation.” Journal of Geophysical Research: Atmospheres 118 (12): 5923–46. doi:10.1002/jgrd.50488.

Bozhinova, D., M. Combe, S. W. L. Palstra, H. A. J. Meijer, M. C. Krol, and W. Peters. 2013. “The Importance of Crop Growth Modeling to Interpret the Δ 14 CO 2 Signature of Annual Plants.” Global Biogeochemical Cycles 27 (3): 792–803. doi:10.1002/gbc.20065.

Broquet, G., F. Chevallier, F.-M. Bréon, N. Kadygrov, M. Alemanno, F. Apadula, S. Hammer, et al. 2013. “Regional Inversion of CO2 Ecosystem Fluxes from Atmospheric Measurements: Reliability of the Uncertainty Estimates.” Atmospheric Chemistry and Physics 13 (17): 9039–56. doi:10.5194/acp-13-9039-2013.

Buysse, Pauline, Stéphanie Goffin, Monique Carnol, Sandrine Malchair, Alain Debacq, Bernard Longdoz, and Marc Aubinet. 2013. “Short-Term Temperature Impact on Soil Heterotrophic Respiration in Limed Agricultural Soil Samples.” Biogeochemistry 112 (1–3): 441–55. doi:10.1007/s10533-012-9739-7.

Buysse, Pauline, Christian Roisin, and Marc Aubinet. 2013. “Fifty Years of Contrasted Residue Management of an Agricultural Crop: Impacts on the Soil Carbon Budget and on Soil Heterotrophic Respiration.” Agriculture, Ecosystems & Environment 167 (March): 52–59. doi:10.1016/j.agee.2013.01.006.

Buysse, Pauline, Anne-Caroline Schnepf-Kiss, Monique Carnol, Sandrine Malchair, Christian Roisin, and Marc Aubinet. 2013. “Fifty Years of Crop Residue Management Have a Limited Impact on Soil Heterotrophic Respiration.” Agricultural and Forest Meteorology 180 (October): 102–11. doi:10.1016/j.agrformet.2013.05.004.

Danielewska, A., E. Paoletti, N. Clarke, J. Olejnik, M. Urbaniak, M. Baran, P. Siedlecki, et al. 2013. “Towards the Integration of Research and Monitoring at Forest Ecosystems in Europe.” Forest Systems 22 (3): 535. doi:10.5424/fs/2013223-03675.

Danielewska, A, N Clarke, J Olejnik, K Hansen, W Vries, L Lundin, J Tuovinen, R Fischer, M Urbaniak, and E Paoletti. 2013. “A Meta-Database Comparison from Various European Research and Monitoring Networks Dedicated to Forest Sites.” IForest - Biogeosciences and Forestry 6 (1): 1–9. doi:10.3832/ifor0751-006.

Deng, F., J. M. Chen, Y. Pan, W. Peters, R. Birdsey, K. McCullough, and J. Xiao. 2013. “The Use of Forest Stand Age Information in an Atmospheric CO2 Inversion Applied to North America.” Biogeosciences 10 (8): 5335–48. doi:10.5194/bg-10-5335-2013.

Dengel, S., D. Zona, T. Sachs, M. Aurela, M. Jammet, F. J. W. Parmentier, W. Oechel, and T. Vesala. 2013. “Testing the Applicability of Neural Networks as a Gap-Filling Method Using CH4 Flux Data from High Latitude Wetlands.” Biogeosciences 10 (12): 8185–8200. doi:10.5194/bg-10-8185-2013.

El Kasmioui, Ouafik, and Reinhart Ceulemans. 2013. “Financial Analysis of the Cultivation of Short Rotation Woody Crops for Bioenergy in Belgium: Barriers and Opportunities.” BioEnergy Research 6 (1): 336–50. doi:10.1007/s12155-012-9262-7.

Fiedler, Björn, Peer Fietzek, Nuno Vieira, Péricles Silva, Henry C. Bittig, and Arne Körtzinger. 2013. “In Situ CO2 and O2 Measurements on a Profiling Float.” Journal of Atmospheric and Oceanic Technology 30 (1): 112–26. doi:10.1175/JTECH-D-12-00043.1.

Fleischer, K., K. T. Rebel, M. K. van der Molen, J. W. Erisman, M. J. Wassen, E. E. van Loon, L. Montagnani, et al. 2013. “The Contribution of Nitrogen Deposition to the Photosynthetic Capacity of Forests.” Global Biogeochemical Cycles 27 (1): 187–99. doi:10.1002/gbc.20026.

Fraser, A., P. I. Palmer, L. Feng, H. Boesch, A. Cogan, R. Parker, E. J. Dlugokencky, et al. 2013. “Estimating Regional Methane Surface Fluxes: The Relative Importance of Surface and GOSAT Mole Fraction Measurements.” Atmospheric Chemistry and Physics 13 (11): 5697–5713. doi:10.5194/acp-13-5697-2013.

Gielen, B., B. De Vos, M. Campioli, J. Neirynck, D. Papale, A. Verstraeten, R. Ceulemans, and I.A. Janssens. 2013. “Biometric and Eddy Covariance-Based Assessment of Decadal Carbon Sequestration of a Temperate Scots Pine Forest.” Agricultural and Forest Meteorology 174–175 (June): 135–43. doi:10.1016/j.agrformet.2013.02.008.

Grossi, C., R. Curcoll, J.A. Morguí, A. Àgueda, M. Ealo, P. Occhipinti, M. Nofuentes, et al. 2013. “H15-92: Application of Atmospheric Transport Models at the New Atmospheric EBRE Delta Station (Climadat Network) in Eastern Spain.” In Proceedings of the 15th International Conference on Harmonisation within Atmospheric Dispersion Modelling for Regulatory Purposes, HARMO 2013.

Guerlet, S., A. Butz, D. Schepers, S. Basu, O. P. Hasekamp, A. Kuze, T. Yokota, et al. 2013. “Impact of Aerosol and Thin Cirrus on Retrieving and Validating XCO 2 from GOSAT Shortwave Infrared Measurements.” Journal of Geophysical Research: Atmospheres 118 (10): 4887–4905. doi:10.1002/jgrd.50332.

Gülzow, W., G. Rehder, J. Schneider v. Deimling, T. Seifert, and Z. Tóth. 2013. “One Year of Continuous Measurements Constraining Methane Emissions from the Baltic Sea to the Atmosphere Using a Ship of Opportunity.” Biogeosciences 10 (1): 81–99. doi:10.5194/bg-10-81-2013.

Hammer, S., D. W. T. Griffith, G. Konrad, S. Vardag, C. Caldow, and I. Levin. 2013. “Assessment of a Multi-Species in Situ FTIR for Precise Atmospheric Greenhouse Gas Observations.” Atmospheric Measurement Techniques 6 (5): 1153–70. doi:10.5194/amt-6-1153-2013.

Hammer, S., G. Konrad, A. T. Vermeulen, O. Laurent, M. Delmotte, A. Jordan, L. Hazan, S. Conil, and I. Levin. 2013. “Feasibility Study of Using a ‘Travelling’ CO2 and CH4 Instrument to Validate Continuous in Situ Measurement Stations.” Atmospheric Measurement Techniques 6 (5): 1201–16. doi:10.5194/amt-6-1201-2013.

Hase, F., B. J. Drouin, C. M. Roehl, G. C. Toon, P. O. Wennberg, D. Wunch, T. Blumenstock, et al. 2013. “Calibration of Sealed HCl Cells Used for TCCON Instrumental Line Shape Monitoring.” Atmospheric Measurement Techniques 6 (12): 3527–37. doi:10.5194/amt-6-3527-2013.

Hensen, Arjan, Ute Skiba, and Daniela Famulari. 2013. “Low Cost and State of the Art Methods to Measure Nitrous Oxide Emissions.” Environmental Research Letters 8 (2): 025022. doi:10.1088/1748-9326/8/2/025022.

Hmimina, G., E. Dufrêne, J.-Y. Pontailler, N. Delpierre, M. Aubinet, B. Caquet, A. de Grandcourt, et al. 2013. “Evaluation of the Potential of MODIS Satellite Data to Predict Vegetation Phenology in Different Biomes: An Investigation Using Ground-Based NDVI Measurements.” Remote Sensing of Environment 132 (May): 145–58. doi:10.1016/j.rse.2013.01.010.

Huotari, Jussi, Sami Haapanala, Jukka Pumpanen, Timo Vesala, and Anne Ojala. 2013. “Efficient Gas Exchange between a Boreal River and the Atmosphere.” Geophysical Research Letters 40 (21): 5683–86. doi:10.1002/2013GL057705.

Jiang, F., H. W. Wang, J. M. Chen, L. X. Zhou, W. M. Ju, A. J. Ding, L. X. Liu, and W. Peters. 2013. “Nested Atmospheric Inversion for the Terrestrial Carbon Sources and Sinks in China.” Biogeosciences 10 (8): 5311–24. doi:10.5194/bg-10-5311-2013.

Juszczak, R. 2013. “Biases in Methane Chamber Measurements in Peatlands.” International Agrophysics 27 (2). doi:10.2478/v10247-012-0081-z.

Juszczak, Radosław, and Jürgen Augustin. 2013. “Exchange of the Greenhouse Gases Methane and Nitrous Oxide Between the Atmosphere and a Temperate Peatland in Central Europe.” Wetlands 33 (5): 895–907. doi:10.1007/s13157-013-0448-3.

King, John S., Reinhart Ceulemans, Janine M. Albaugh, Sophie Y. Dillen, Jean-Christophe Domec, Regis Fichot, Milan Fischer, et al. 2013. “The Challenge of Lignocellulosic Bioenergy in a Water-Limited World.” BioScience 63 (2): 102–17. doi:10.1525/bio.2013.63.2.6.

Kirschke, Stefanie, Philippe Bousquet, Philippe Ciais, Marielle Saunois, Josep G. Canadell, Edward J. Dlugokencky, Peter Bergamaschi, et al. 2013. “Three Decades of Global Methane Sources and Sinks.” Nature Geoscience 6 (10): 813–23. doi:10.1038/ngeo1955.

Korhonen, J. F. J., M. Pihlatie, J. Pumpanen, H. Aaltonen, P. Hari, J. Levula, A.-J. Kieloaho, E. Nikinmaa, T. Vesala, and H. Ilvesniemi. 2013. “Nitrogen Balance of a Boreal Scots Pine Forest.” Biogeosciences 10 (2): 1083–95. doi:10.5194/bg-10-1083-2013.

Kowalska, N., B.H. Chojnicki, J. Rinne, S. Haapanala, P. Siedlecki, M. Urbaniak, R. Juszczak, and J. Olejnik. 2013. “Measurements of Methane Emission from a Temperate Wetland by the Eddy Covariance Method.” International Agrophysics 27 (3). doi:10.2478/v10247-012-0096-5.

Krol, M., W. Peters, P. Hooghiemstra, M. George, C. Clerbaux, D. Hurtmans, D. McInerney, et al. 2013. “How Much CO Was Emitted by the 2010 Fires around Moscow?” Atmospheric Chemistry and Physics 13 (9): 4737–47. doi:10.5194/acp-13-4737-2013.

Laffineur, Q., M. Aubinet, N. Schoon, C. Amelynck, J.-F. Müller, J. Dewulf, K. Steppe, and B. Heinesch. 2013. “Impact of Diffuse Light on Isoprene and Monoterpene Emissions from a Mixed Temperate Forest.” Atmospheric Environment 74 (August): 385–92. doi:10.1016/j.atmosenv.2013.04.025.

Le Quéré, C., R. J. Andres, T. Boden, T. Conway, R. A. Houghton, J. I. House, G. Marland, et al. 2013. “The Global Carbon Budget 1959–2011.” Earth System Science Data 5 (1): 165–85. doi:10.5194/essd-5-165-2013.

Lenton, A., B. Tilbrook, R. M. Law, D. Bakker, S. C. Doney, N. Gruber, M. Ishii, et al. 2013. “Sea–air CO2 Fluxes in the Southern Ocean for the Period 1990–2009.” Biogeosciences 10 (6): 4037–54. doi:10.5194/bg-10-4037-2013.

Levin, INGEBORG, BERND Kromer, and SAMUEL Hammer. 2013. “Atmospheric Δ 14 CO 2 Trend in Western European Background Air from 2000 to 2012.” Tellus B: Chemical and Physical Meteorology 65 (1): 20092. doi:10.3402/tellusb.v65i0.20092.

Loubet, Benjamin, Pierre Cellier, Christophe Fléchard, Olivier Zurfluh, Mark Irvine, Eric Lamaud, Patrick Stella, et al. 2013. “Investigating Discrepancies in Heat, CO2 Fluxes and O3 Deposition Velocity over Maize as Measured by the Eddy-Covariance and the Aerodynamic Gradient Methods.” Agricultural and Forest Meteorology 169 (February): 35–50. doi:10.1016/j.agrformet.2012.09.010.

Luo, G. J., R. Kiese, B. Wolf, and K. Butterbach-Bahl. 2013. “Effects of Soil Temperature and Moisture on Methane Uptake and Nitrous Oxide Emissions across Three Different Ecosystem Types.” Biogeosciences 10 (5): 3205–19. doi:10.5194/bg-10-3205-2013.

Maksyutov, S., H. Takagi, V. K. Valsala, M. Saito, T. Oda, T. Saeki, D. A. Belikov, et al. 2013. “Regional CO2 Flux Estimates for 2009–2010 Based on GOSAT and Ground-Based CO2 Observations.” Atmospheric Chemistry and Physics 13 (18): 9351–73. doi:10.5194/acp-13-9351-2013.

Manohar, S.N., H.A.J. Meijer, and M.A. Herber. 2013. “Radon Flux Maps for the Netherlands and Europe Using Terrestrial Gamma Radiation Derived from Soil Radionuclides.” Atmospheric Environment 81 (December): 399–412. doi:10.1016/j.atmosenv.2013.09.005.

Maselli, F., G. Argenti, M. Chiesi, L. Angeli, and D. Papale. 2013. “Simulation of Grassland Productivity by the Combination of Ground and Satellite Data.” Agriculture, Ecosystems & Environment 165 (January): 163–72. doi:10.1016/j.agee.2012.11.006.

Mauder, Matthias, Matthias Cuntz, Clemens Drüe, Alexander Graf, Corinna Rebmann, Hans Peter Schmid, Marius Schmidt, and Rainer Steinbrecher. 2013. “A Strategy for Quality and Uncertainty Assessment of Long-Term Eddy-Covariance Measurements.” Agricultural and Forest Meteorology 169 (February): 122–35. doi:10.1016/j.agrformet.2012.09.006.

Melaas, Eli K., Andrew D. Richardson, Mark A. Friedl, Danilo Dragoni, Christopher M. Gough, Mathias Herbst, Leonardo Montagnani, and Eddy Moors. 2013. “Using FLUXNET Data to Improve Models of Springtime Vegetation Activity Onset in Forest Ecosystems.” Agricultural and Forest Meteorology 171–172 (April): 46–56. doi:10.1016/j.agrformet.2012.11.018.

Njakou Djomo, S., O. El Kasmioui, T. De Groote, L.S. Broeckx, M.S. Verlinden, G. Berhongaray, R. Fichot, et al. 2013. “Energy and Climate Benefits of Bioelectricity from Low-Input Short Rotation Woody Crops on Agricultural Land over a Two-Year Rotation.” Applied Energy 111 (November): 862–70. doi:10.1016/j.apenergy.2013.05.017.

Oshchepkov, Sergey, Andrey Bril, Tatsuya Yokota, Paul O. Wennberg, Nicholas M. Deutscher, Debra Wunch, Geoffrey C. Toon, et al. 2013. “Effects of Atmospheric Light Scattering on Spectroscopic Observations of Greenhouse Gases from Space. Part 2: Algorithm Intercomparison in the GOSAT Data Processing for CO 2 Retrievals over TCCON Sites.” Journal of Geophysical Research: Atmospheres 118 (3): 1493–1512. doi:10.1002/jgrd.50146.

Oshchepkov, Sergey, Andrey Bril, Tatsuya Yokota, Yukio Yoshida, Thomas Blumenstock, Nicholas M. Deutscher, Susanne Dohe, et al. 2013. “Simultaneous Retrieval of Atmospheric CO\_2 and Light Path Modification from Space-Based Spectroscopic Observations of Greenhouse Gases: Methodology and Application to GOSAT Measurements over TCCON Sites.” Applied Optics 52 (6): 1339. doi:10.1364/AO.52.001339.

O’Shea, S. J., S. J.-B. Bauguitte, M. W. Gallagher, D. Lowry, and C. J. Percival. 2013. “Development of a Cavity-Enhanced Absorption Spectrometer for Airborne Measurements of CH4 and CO2.” Atmospheric Measurement Techniques 6 (5): 1095–1109. doi:10.5194/amt-6-1095-2013.

Peltola, O., I. Mammarella, S. Haapanala, G. Burba, and T. Vesala. 2013. “Field Intercomparison of Four Methane Gas Analyzers Suitable for Eddy Covariance Flux Measurements.” Biogeosciences 10 (6): 3749–65. doi:10.5194/bg-10-3749-2013.

Peylin, P., R. M. Law, K. R. Gurney, F. Chevallier, A. R. Jacobson, T. Maki, Y. Niwa, et al. 2013. “Global Atmospheric Carbon Budget: Results from an Ensemble of Atmospheric CO2 Inversions.” Biogeosciences 10 (10): 6699–6720. doi:10.5194/bg-10-6699-2013.

Pfeil, B., A. Olsen, D. C. E. Bakker, S. Hankin, H. Koyuk, A. Kozyr, J. Malczyk, et al. 2013. “A Uniform, Quality Controlled Surface Ocean CO2 Atlas (SOCAT).” Earth System Science Data 5 (1): 125–43. doi:10.5194/essd-5-125-2013.

Pieterse, G., M. C. Krol, A. M. Batenburg, C. A. M. Brenninkmeijer, M. E. Popa, S. O’Doherty, A. Grant, et al. 2013. “Reassessing the Variability in Atmospheric H 2 Using the Two-Way Nested TM5 Model.” Journal of Geophysical Research: Atmospheres 118 (9): 3764–80. doi:10.1002/jgrd.50204.

Pieterse, G., M. C. Krol, a. M. Batenburg, C. a. M. Brenninkmeijer, M. E. Popa, S. O’Doherty, A. Grant, et al. 2013. “Reassessing the Variability in Atmospheric H 2 Using the Two-Way Nested TM5 Model.” Journal of Geophysical Research: Atmospheres 118 (9): 3764–80. doi:10.1002/jgrd.50204.

Pita, Gabriel, Bert Gielen, Donatella Zona, Abel Rodrigues, Serge Rambal, Ivan A. Janssens, and Reinhart Ceulemans. 2013. “Carbon and Water Vapor Fluxes over Four Forests in Two Contrasting Climatic Zones.” Agricultural and Forest Meteorology 180 (October): 211–24. doi:10.1016/j.agrformet.2013.06.003.

Reichstein, Markus, Michael Bahn, Philippe Ciais, Dorothea Frank, Miguel D. Mahecha, Sonia I. Seneviratne, Jakob Zscheischler, et al. 2013. “Climate Extremes and the Carbon Cycle.” Nature 500 (7462): 287–95. doi:10.1038/nature12350.

Rella, C. W., H. Chen, A. E. Andrews, A. Filges, C. Gerbig, J. Hatakka, A. Karion, et al. 2013. “High Accuracy Measurements of Dry Mole Fractions of Carbon Dioxide and Methane in Humid Air.” Atmospheric Measurement Techniques 6 (3): 837–60. doi:10.5194/amt-6-837-2013.

Sabine, C. L., S. Hankin, H. Koyuk, D. C. E. Bakker, B. Pfeil, A. Olsen, N. Metzl, et al. 2013. “Surface Ocean CO2 Atlas (SOCAT) Gridded Data Products.” Earth System Science Data 5 (1): 145–53. doi:10.5194/essd-5-145-2013.

Simmonds, P. G., A. J. Manning, M. Athanassiadou, A. A. Scaife, R. G. Derwent, S. O’Doherty, C. M. Harth, et al. 2013. “Interannual Fluctuations in the Seasonal Cycle of Nitrous Oxide and Chlorofluorocarbons Due to the Brewer-Dobson Circulation.” Journal of Geophysical Research: Atmospheres 118 (19): 10,694-10,706. doi:10.1002/jgrd.50832.

Šimpraga, M., H. Verbeeck, J. Bloemen, L. Vanhaecke, M. Demarcke, E. Joó, O. Pokorska, et al. 2013. “Vertical Canopy Gradient in Photosynthesis and Monoterpenoid Emissions: An Insight into the Chemistry and Physiology Behind.” Atmospheric Environment 80 (December): 85–95. doi:10.1016/j.atmosenv.2013.07.047.

Stoy, Paul C., Matthias Mauder, Thomas Foken, Barbara Marcolla, Eva Boegh, Andreas Ibrom, M. Altaf Arain, et al. 2013. “A Data-Driven Analysis of Energy Balance Closure across FLUXNET Research Sites: The Role of Landscape Scale Heterogeneity.” Agricultural and Forest Meteorology 171–172 (April): 137–52. doi:10.1016/j.agrformet.2012.11.004.

Sussmann, R., A. Ostler, F. Forster, M. Rettinger, N. M. Deutscher, D. W. T. Griffith, J. W. Hannigan, N. Jones, and P. K. Patra. 2013. “First Intercalibration of Column-Averaged Methane from the Total Carbon Column Observing Network and the Network for the Detection of Atmospheric Composition Change.” Atmospheric Measurement Techniques 6 (2): 397–418. doi:10.5194/amt-6-397-2013.

Teuling, Adriaan J., Anne F. Van Loon, Sonia I. Seneviratne, Irene Lehner, Marc Aubinet, Bernard Heinesch, Christian Bernhofer, Thomas Grünwald, Heiko Prasse, and Uwe Spank. 2013. “Evapotranspiration Amplifies European Summer Drought.” Geophysical Research Letters 40 (10): 2071–75. doi:10.1002/grl.50495.

Unger, N., K. Harper, Y. Zheng, N. Y. Kiang, I. Aleinov, A. Arneth, G. Schurgers, et al. 2013. “Photosynthesis-Dependent Isoprene Emission from Leaf to Planet in a Global Carbon-Chemistry-Climate Model.” Atmospheric Chemistry and Physics 13 (20): 10243–69. doi:10.5194/acp-13-10243-2013.

van der Laan-Luijkx, I. T., S. van der Laan, C. Uglietti, M. F. Schibig, R. E. M. Neubert, H. A. J. Meijer, W. A. Brand, et al. 2013. “Atmospheric CO2, δ(O2/N2) and Δ13CO2 Measurements at Jungfraujoch, Switzerland: Results from a Flask Sampling Intercomparison Program.” Atmospheric Measurement Techniques 6 (7): 1805–15. doi:10.5194/amt-6-1805-2013.

van der Velde, I. R., J. B. Miller, K. Schaefer, K. A. Masarie, S. Denning, J. W. C. White, P. P. Tans, M. C. Krol, and W. Peters. 2013. “Biosphere Model Simulations of Interannual Variability in Terrestrial 13 C/ 12 C Exchange.” Global Biogeochemical Cycles 27 (3): 637–49. doi:10.1002/gbc.20048.

van der Werf, G. R., W. Peters, T. T. van Leeuwen, and L. Giglio. 2013. “What Could Have Caused Pre-Industrial Biomass Burning Emissions to Exceed Current Rates?” Climate of the Past 9 (1): 289–306. doi:10.5194/cp-9-289-2013.

van Leeuwen, T. T., W. Peters, M. C. Krol, and G. R. van der Werf. 2013. “Dynamic Biomass Burning Emission Factors and Their Impact on Atmospheric CO Mixing Ratios.” Journal of Geophysical Research: Atmospheres 118 (12): 6797–6815. doi:10.1002/jgrd.50478.

Vargas, Rodrigo, Oliver Sonnentag, Gab Abramowitz, Arnaud Carrara, Jing Ming Chen, Philippe Ciais, Alexandra Correia, et al. 2013. “Drought Influences the Accuracy of Simulated Ecosystem Fluxes: A Model-Data Meta-Analysis for Mediterranean Oak Woodlands.” Ecosystems 16 (5): 749–64. doi:10.1007/s10021-013-9648-1.

Verlinden, M. S., L. S. Broeckx, H. Wei, and R. Ceulemans. 2013. “Soil CO2 Efflux in a Bioenergy Plantation with Fast-Growing Populus Trees – Influence of Former Land Use, Inter-Row Spacing and Genotype.” Plant and Soil 369 (1–2): 631–44. doi:10.1007/s11104-013-1604-5.

Verlinden, M.S., L.S. Broeckx, J. Van den Bulcke, J. Van Acker, and R. Ceulemans. 2013. “Comparative Study of Biomass Determinants of 12 Poplar (Populus) Genotypes in a High-Density Short-Rotation Culture.” Forest Ecology and Management 307 (November): 101–11. doi:10.1016/j.foreco.2013.06.062.

Vogel, Felix R., Balendra Thiruchittampalam, Jochen Theloke, Roberto Kretschmer, Christoph Gerbig, Samuel Hammer, and Ingeborg Levin. 2013. “Can We Evaluate a Fine-Grained Emission Model Using High-Resolution Atmospheric Transport Modelling and Regional Fossil Fuel CO 2 Observations?” Tellus B: Chemical and Physical Meteorology 65 (1): 18681. doi:10.3402/tellusb.v65i0.18681.

Wang, Kai, Xunhua Zheng, Mari Pihlatie, Timo Vesala, Chunyan Liu, Sami Haapanala, Ivan Mammarella, Üllar Rannik, and Huizhi Liu. 2013. “Comparison between Static Chamber and Tunable Diode Laser-Based Eddy Covariance Techniques for Measuring Nitrous Oxide Fluxes from a Cotton Field.” Agricultural and Forest Meteorology 171–172 (April): 9–19. doi:10.1016/j.agrformet.2012.11.009.

Wu, Chaoyang, Jing M. Chen, T. Andrew Black, David T. Price, Werner A. Kurz, Ankur R. Desai, Alemu Gonsamo, et al. 2013. “Interannual Variability of Net Ecosystem Productivity in Forests Is Explained by Carbon Flux Phenology in Autumn.” Global Ecology and Biogeography 22 (8): 994–1006. doi:10.1111/geb.12044.

Yoshida, Y., N. Kikuchi, I. Morino, O. Uchino, S. Oshchepkov, A. Bril, T. Saeki, et al. 2013. “Improvement of the Retrieval Algorithm for GOSAT SWIR XCO2 and XCH4 and Their Validation Using TCCON Data.” Atmospheric Measurement Techniques 6 (6): 1533–47. doi:10.5194/amt-6-1533-2013.

Zona, D., I.A. Janssens, M. Aubinet, B. Gioli, S. Vicca, R. Fichot, and R. Ceulemans. 2013. “Fluxes of the Greenhouse Gases (CO2, CH4 and N2O) above a Short-Rotation Poplar Plantation after Conversion from Agricultural Land.” Agricultural and Forest Meteorology 169 (February): 100–110. doi:10.1016/j.agrformet.2012.10.008.

Zona, D., I.A. Janssens, M. Aubinet, B. Gioli, S. Vicca, R. Fichot, and R. Ceulemans. 2013. “Corrigendum to ‘Fluxes of the Greenhouse Gases (CO2, CH4 and N2O) above a Short-Rotation Poplar Plantation after Conversion from Agricultural Land’ [Agric. For. Meteorol. 169 (2012) 100–110].” Agricultural and Forest Meteorology 169 (February): 211. doi:10.1016/j.agrformet.2012.12.002.

Zona, Donatella, Ivan A. Janssens, Beniamino Gioli, Hermann F. Jungkunst, Marta C. Serrano, and Reinhart Ceulemans. 2013. “N2O Fluxes of a Bio-Energy Poplar Plantation during a Two Years Rotation Period.” GCB Bioenergy 5 (5): 536–47. doi:10.1111/gcbb.12019.

# 2012

Baldocchi, Dennis, Markus Reichstein, Dario Papale, Laurie Koteen, Rodrigo Vargas, Deborah Agarwal, and Robert Cook. 2012. “The Role of Trace Gas Flux Networks in the Biogeosciences.” Eos, Transactions American Geophysical Union 93 (23): 217–18. doi:10.1029/2012EO230001.

Brunner, D., S. Henne, C. A. Keller, S. Reimann, M. K. Vollmer, S. O’Doherty, and M. Maione. 2012. “An Extended Kalman-Filter for Regional Scale Inverse Emission Estimation.” Atmospheric Chemistry and Physics 12 (7): 3455–78. doi:10.5194/acp-12-3455-2012.

Fratini, Gerardo, Andreas Ibrom, Nicola Arriga, George Burba, and Dario Papale. 2012. “Corrigendum to ‘Relative Humidity Effects on Water Vapour Fluxes Measured with Closed-Path Eddy-Covariance Systems with Short Sampling Lines’ [Agric. Forest Meteorol. 165 (2012) 53–63].” Agricultural and Forest Meteorology 166–167 (December): 234. doi:10.1016/j.agrformet.2012.10.013.

Fratini, Gerardo, Andreas Ibrom, Nicola Arriga, George Burba, and Dario Papale. 2012. “Relative Humidity Effects on Water Vapour Fluxes Measured with Closed-Path Eddy-Covariance Systems with Short Sampling Lines.” Agricultural and Forest Meteorology 165 (November): 53–63. doi:10.1016/j.agrformet.2012.05.018.

Heymann, J., H. Bovensmann, M. Buchwitz, J. P. Burrows, N. M. Deutscher, J. Notholt, M. Rettinger, et al. 2012. “SCIAMACHY WFM-DOAS XCO2: Reduction of Scattering Related Errors.” Atmospheric Measurement Techniques 5 (10): 2375–90. doi:10.5194/amt-5-2375-2012.

Houweling, Sander, B. Badawy, D. F. Baker, S. Basu, D. Belikov, P. Bergamaschi, P. Bousquet, et al. 2012. “Iconic CO2 Time Series at Risk.” Science 337 (6098): 1038–40. doi:10.1126/science.337.6098.1038-b.

Jung, Martin, Markus Reichstein, Hank A. Margolis, Alessandro Cescatti, Andrew D. Richardson, M. Altaf Arain, Almut Arneth, et al. 2012. “Correction to ‘Global Patterns of Land-Atmosphere Fluxes of Carbon Dioxide, Latent Heat, and Sensible Heat Derived from Eddy Covariance, Satellite, and Meteorological Observations.’” Journal of Geophysical Research: Biogeosciences 117 (G4): n/a-n/a. doi:10.1029/2012JG002190.

Lasslop, G., M. Migliavacca, G. Bohrer, M. Reichstein, M. Bahn, A. Ibrom, C. Jacobs, et al. 2012. “On the Choice of the Driving Temperature for Eddy-Covariance Carbon Dioxide Flux Partitioning.” Biogeosciences 9 (12): 5243–59. doi:10.5194/bg-9-5243-2012.

Luyssaert, S., G. Abril, R. Andres, D. Bastviken, V. Bellassen, P. Bergamaschi, P. Bousquet, et al. 2012. “The European Land and Inland Water CO2, CO, CH4 and N2O Balance between 2001 and 2005.” Biogeosciences 9 (8): 3357–80. doi:10.5194/bg-9-3357-2012.

Meesters, A. G. C. A., L. F. Tolk, W. Peters, R. W. A. Hutjes, O. S. Vellinga, J A Elbers, A. T. Vermeulen, et al. 2012. “Inverse Carbon Dioxide Flux Estimates for the Netherlands.” Journal of Geophysical Research: Atmospheres 117 (D20): n/a-n/a. doi:10.1029/2012JD017797.

Oram, D. E., F. S. Mani, J. C. Laube, M. J. Newland, C. E. Reeves, W. T. Sturges, S. A. Penkett, C. A. M. Brenninkmeijer, T. Röckmann, and P. J. Fraser. 2012. “Long-Term Tropospheric Trend of Octafluorocyclobutane (c-C4F8 or PFC-318).” Atmospheric Chemistry and Physics 12 (1): 261–69. doi:10.5194/acp-12-261-2012.

Orza, J. A. G., M. Cabello, V. Galiano, A. T. Vermeulen, and A. F. Stein. 2012. “The Association Between the North Atlantic Oscillation and the Interannual Variability of the Tropospheric Transport Pathways in Western Europe.” In Lagrangian Modellng of the Atmosphere, edited by J C Lin and C Gerbig, 127–41. American Geophysical Union. doi:10.1029/2012GM001315.

Oshchepkov, Sergey, Andrey Bril, Tatsuya Yokota, Isamu Morino, Yukio Yoshida, Tsuneo Matsunaga, Dmitry Belikov, et al. 2012. “Effects of Atmospheric Light Scattering on Spectroscopic Observations of Greenhouse Gases from Space: Validation of PPDF-Based CO 2 Retrievals from GOSAT.” Journal of Geophysical Research: Atmospheres 117 (D12): n/a-n/a. doi:10.1029/2012JD017505.

Petri, C., T. Warneke, N. Jones, T. Ridder, J. Messerschmidt, T. Weinzierl, M. Geibel, and J. Notholt. 2012. “Remote Sensing of CO2 and CH4 Using Solar Absorption Spectrometry with a Low Resolution Spectrometer.” Atmospheric Measurement Techniques 5 (7): 1627–35. doi:10.5194/amt-5-1627-2012.

Pino, D., J. Vilà-Guerau de Arellano, W. Peters, J. Schröter, C. C. van Heerwaarden, and M. C. Krol. 2012. “A Conceptual Framework to Quantify the Influence of Convective Boundary Layer Development on Carbon Dioxide Mixing Ratios.” Atmospheric Chemistry and Physics 12 (6): 2969–85. doi:10.5194/acp-12-2969-2012.

Rey, A., G. Etiope, L. Belelli-Marchesini, D. Papale, and R. Valentini. 2012. “Geologic Carbon Sources May Confound Ecosystem Carbon Balance Estimates: Evidence from a Semiarid Steppe in the Southeast of Spain.” Journal of Geophysical Research: Biogeosciences 117 (G3): n/a-n/a. doi:10.1029/2012JG001991.

Rey, Ana, Luca Belelli-Marchesini, Ana Were, Penelope Serrano-ortiz, Giuseppe Etiope, Dario Papale, Francisco Domingo, and Emiliano Pegoraro. 2012. “Wind as a Main Driver of the Net Ecosystem Carbon Balance of a Semiarid Mediterranean Steppe in the South East of Spain.” Global Change Biology 18 (2): 539–54. doi:10.1111/j.1365-2486.2011.02534.x.

Saito, R., P. K. Patra, N. Deutscher, D. Wunch, K. Ishijima, V. Sherlock, T. Blumenstock, et al. 2012. “Technical Note: Latitude-Time Variations of Atmospheric Column-Average Dry Air Mole Fractions of CO2, CH4 and N2O.” Atmospheric Chemistry and Physics 12 (16): 7767–77. doi:10.5194/acp-12-7767-2012.

Sriskantharajah, S., R. E. Fisher, D. Lowry, T. Aalto, J. Hatakka, M. Aurela, T. Laurila, A. Lohila, E. Kuitunen, and E. G. Nisbet. 2012. “Stable Carbon Isotope Signatures of Methane from a Finnish Subarctic Wetland.” Tellus B 64 (0). doi:10.3402/tellusb.v64i0.18818.

Sturges, W. T., D. E. Oram, J. C. Laube, C. E. Reeves, M. J. Newland, C. Hogan, P. Martinerie, et al. 2012. “Emissions Halted of the Potent Greenhouse Gas SF5CF3.” Atmospheric Chemistry and Physics 12 (8): 3653–58. doi:10.5194/acp-12-3653-2012.

Tørseth, K., W. Aas, K. Breivik, A. M. Fjæraa, M. Fiebig, A. G. Hjellbrekke, C. Lund Myhre, S. Solberg, and K. E. Yttri. 2012. “Introduction to the European Monitoring and Evaluation Programme (EMEP) and Observed Atmospheric Composition Change during 1972&amp;Ndash;2009.” Atmospheric Chemistry and Physics 12 (12): 5447–81. doi:10.5194/acp-12-5447-2012.

Vicca, S., S. Luyssaert, J. Peñuelas, M. Campioli, F. S. Chapin, P. Ciais, A. Heinemeyer, et al. 2012. “Fertile Forests Produce Biomass More Efficiently.” Ecology Letters 15 (6): 520–26. doi:10.1111/j.1461-0248.2012.01775.x.

Wang, Tao, Pierre Brender, Philippe Ciais, Shilong Piao, Miguel D. Mahecha, Frédéric Chevallier, Markus Reichstein, et al. 2012. “State-Dependent Errors in a Land Surface Model across Biomes Inferred from Eddy Covariance Observations on Multiple Timescales.” Ecological Modelling 246 (November): 11–25. doi:10.1016/j.ecolmodel.2012.07.017.

# 2011

Broquet, Grégoire, Frédéric Chevallier, Peter Rayner, Céline Aulagnier, Isabelle Pison, Michel Ramonet, Martina Schmidt, Alex T. Vermeulen, and Philippe Ciais. 2011. “A European Summertime CO 2 Biogenic Flux Inversion at Mesoscale from Continuous in Situ Mixing Ratio Measurements.” Journal of Geophysical Research 116 (D23): D23303. doi:10.1029/2011JD016202.

Campioli, M., B. Gielen, M. Göckede, D. Papale, O. Bouriaud, and A. Granier. 2011. “Temporal Variability of the NPP-GPP Ratio at Seasonal and Interannual Time Scales in a Temperate Beech Forest.” Biogeosciences 8 (9): 2481–92. doi:10.5194/bg-8-2481-2011.

Chiti, Tommaso, Giacomo Certini, Lucia Perugini, Giovanni Mastrolonardo, Dario Papale, and Riccardo Valentini. 2011. “Soil Carbon Dynamics in a Mediterranean Forest during the Kyoto Protocol Commitment Periods.” Regional Environmental Change 11 (2): 371–76. doi:10.1007/s10113-010-0141-5.

Chiti, Tommaso, Giacomo Certini, Lucia Perugini, Giovanni Mastrolonardo, Dario Papale, and Riccardo Valentini. 2011. “Soil Carbon Dynamics in a Mediterranean Forest during the Kyoto Protocol Commitment Periods.” Regional Environmental Change 11 (2): 371–76. doi:10.1007/s10113-010-0141-5.

Clarke, N, R Fischer, W de Vries, L Lundin, D Papale, T Vesala, P Merilä, et al. 2011. “Availability, Accessibility, Quality and Comparability of Monitoring Data for European Forests for Use in Air Pollution and Climate Change Science.” IForest - Biogeosciences and Forestry 4 (4): 162–66. doi:10.3832/ifor0582-004.

Corazza, M., P. Bergamaschi, A. T. Vermeulen, T. Aalto, L. Haszpra, F. Meinhardt, S. O’Doherty, et al. 2011. “Inverse Modelling of European N2O Emissions: Assimilating Observations from Different Networks.” Atmospheric Chemistry and Physics 11 (5): 2381–98. doi:10.5194/acp-11-2381-2011.

Fischer, R, W Aas, W De Vries, N Clarke, P Cudlin, D Leaver, L Lundin, et al. 2011. “Towards a Transnational System of Supersites for Forest Monitoring and Research in Europe - an Overview on Present State and Future Recommendations.” IForest - Biogeosciences and Forestry 4 (4): 167–71. doi:10.3832/ifor0584-004.

Fisher, R. E., S. Sriskantharajah, D. Lowry, M. Lanoisellé, C. M. R. Fowler, R. H. James, O. Hermansen, et al. 2011. “Arctic Methane Sources: Isotopic Evidence for Atmospheric Inputs.” Geophysical Research Letters 38 (21): n/a-n/a. doi:10.1029/2011GL049319.

Goerner, A., M. Reichstein, E. Tomelleri, N. Hanan, S. Rambal, D. Papale, D. Dragoni, and C. Schmullius. 2011. “Remote Sensing of Ecosystem Light Use Efficiency with MODIS-Based PRI.” Biogeosciences 8 (1): 189–202. doi:10.5194/bg-8-189-2011.

Jung, Martin, Markus Reichstein, Hank A. Margolis, Alessandro Cescatti, Andrew D. Richardson, M. Altaf Arain, Almut Arneth, et al. 2011. “Global Patterns of Land-Atmosphere Fluxes of Carbon Dioxide, Latent Heat, and Sensible Heat Derived from Eddy Covariance, Satellite, and Meteorological Observations.” Journal of Geophysical Research 116 (September): G00J07. doi:10.1029/2010JG001566.

Masarie, K. A., G. Pétron, A. Andrews, L. Bruhwiler, T. J. Conway, A. R. Jacobson, J. B. Miller, P. P. Tans, D. E. Worthy, and W. Peters. 2011. “Impact of CO2 Measurement Bias on CarbonTracker Surface Flux Estimates.” Journal of Geophysical Research 116 (D17): D17305. doi:10.1029/2011JD016270.

MIGLIAVACCA, MIRCO, MARKUS REICHSTEIN, ANDREW D. RICHARDSON, ROBERTO COLOMBO, MARK A. SUTTON, GITTA LASSLOP, ENRICO TOMELLERI, et al. 2011. “Semiempirical Modeling of Abiotic and Biotic Factors Controlling Ecosystem Respiration across Eddy Covariance Sites.” Global Change Biology 17 (1): 390–409. doi:10.1111/j.1365-2486.2010.02243.x.

Peylin, P., S. Houweling, M. C. Krol, U. Karstens, C. Rödenbeck, C. Geels, A. Vermeulen, et al. 2011. “Importance of Fossil Fuel Emission Uncertainties over Europe for CO2 Modeling: Model Intercomparison.” Atmospheric Chemistry and Physics 11 (13): 6607–22. doi:10.5194/acp-11-6607-2011.

Popa, M. E., A. T. Vermeulen, W. C. M. van den Bulk, P. A. C. Jongejan, A. M. Batenburg, W. Zahorowski, and T. Röckmann. 2011. “H2 Vertical Profiles in the Continental Boundary Layer: Measurements at the Cabauw Tall Tower in The Netherlands.” Atmospheric Chemistry and Physics 11 (13): 6425–43. doi:10.5194/acp-11-6425-2011.

Sulkava, Mika, Sebastiaan Luyssaert, Sönke Zaehle, and Dario Papale. 2011. “Assessing and Improving the Representativeness of Monitoring Networks: The European Flux Tower Network Example.” Journal of Geophysical Research 116 (May): G00J04. doi:10.1029/2010JG001562.

van der Molen, M.K., A.J. Dolman, P. Ciais, T. Eglin, N. Gobron, B.E. Law, P. Meir, et al. 2011. “Drought and Ecosystem Carbon Cycling.” Agricultural and Forest Meteorology 151 (7): 765–73. doi:10.1016/j.agrformet.2011.01.018.

Vermeulen, A. T., A. Hensen, M. E. Popa, W. C. M. van den Bulk, and P. a. C. Jongejan. 2011. “Greenhouse Gas Observations from Cabauw Tall Tower (1992–2010).” Atmospheric Measurement Techniques 4 (3): 617–44. doi:10.5194/amt-4-617-2011.

# 2010

Arnold, D., A. Vargas, A. T. Vermeulen, B. Verheggen, and P. Seibert. 2010. “Analysis of Radon Origin by Backward Atmospheric Transport Modelling.” Atmospheric Environment 44 (4). Elsevier Ltd: 494–502. doi:10.1016/j.atmosenv.2009.11.003.

Beer, C., M. Reichstein, E. Tomelleri, P. Ciais, M. Jung, N. Carvalhais, C. Rodenbeck, et al. 2010. “Terrestrial Gross Carbon Dioxide Uptake: Global Distribution and Covariation with Climate.” Science 329 (5993): 834–38. doi:10.1126/science.1184984.

Bergamaschi, P., M. Krol, J. F. Meirink, F. Dentener, A. Segers, J. van Aardenne, S. Monni, et al. 2010. “Inverse Modeling of European CH 4 Emissions 2001–2006.” Journal of Geophysical Research 115 (D22): D22309. doi:10.1029/2010JD014180.

Chevallier, F., P. Ciais, T. J. Conway, T. Aalto, B. E. Anderson, P. Bousquet, E. G. Brunke, et al. 2010. “CO2 Surface Fluxes at Grid Point Scale Estimated from a Global 21 Year Reanalysis of Atmospheric Measurements.” Journal of Geophysical Research 115 (D21): D21307. doi:10.1029/2010JD013887.

Garbulsky, Martín F., Josep Peñuelas, Dario Papale, Jonas Ardö, Michael L. Goulden, Gerard Kiely, Andrew D. Richardson, Eyal Rotenberg, Elmar M. Veenendaal, and Iolanda Filella. 2010. “Patterns and Controls of the Variability of Radiation Use Efficiency and Primary Productivity across Terrestrial Ecosystems.” Global Ecology and Biogeography 19 (2): 253–67. doi:10.1111/j.1466-8238.2009.00504.x.

Janssens, I. A., W. Dieleman, S. Luyssaert, J-A. Subke, M. Reichstein, R. Ceulemans, P. Ciais, et al. 2010. “Reduction of Forest Soil Respiration in Response to Nitrogen Deposition.” Nature Geoscience 3 (5): 315–22. doi:10.1038/ngeo844.

Jung, Martin, Markus Reichstein, Philippe Ciais, Sonia I. Seneviratne, Justin Sheffield, Michael L. Goulden, Gordon Bonan, et al. 2010. “Recent Decline in the Global Land Evapotranspiration Trend Due to Limited Moisture Supply.” Nature 467 (7318): 951–54. doi:10.1038/nature09396.

Kroon, P. S., A. Hensen, H. J. J. Jonker, H. G. Ouwersloot, A. T. Vermeulen, and F. C. Bosveld. 2010. “Uncertainties in Eddy Covariance Flux Measurements Assessed from CH4 and N2O Observations.” Agricultural and Forest Meteorology 150 (6). Elsevier B.V.: 806–16. doi:10.1016/j.agrformet.2009.08.008.

LASSLOP, GITTA, MARKUS REICHSTEIN, DARIO PAPALE, ANDREW D. RICHARDSON, ALMUT ARNETH, ALAN BARR, PAUL STOY, and GEORG WOHLFAHRT. 2010. “Separation of Net Ecosystem Exchange into Assimilation and Respiration Using a Light Response Curve Approach: Critical Issues and Global Evaluation.” Global Change Biology 16 (1): 187–208. doi:10.1111/j.1365-2486.2009.02041.x.

LUYSSAERT, S., P. CIAIS, S. L. PIAO, E.-D. SCHULZE, M. JUNG, S. ZAEHLE, M. J. SCHELHAAS, et al. 2010. “The European Carbon Balance. Part 3: Forests.” Global Change Biology 16 (5): 1429–50. doi:10.1111/j.1365-2486.2009.02056.x.

Peters, W., M. C. Krol, G. R. van der Werf, S. Houweling, C. D. JONES, J. HUGHES, K. SCHAEFER, et al. 2010. “Seven Years of Recent European Net Terrestrial Carbon Dioxide Exchange Constrained by Atmospheric Observations.” Global Change Biology 16 (4): 1317–37. doi:10.1111/j.1365-2486.2009.02078.x.

Ter Maat, H. W., R. W. A. Hutjes, F. Miglietta, B. Gioli, F. C. Bosveld, A. T. Vermeulen, and H. Fritsch. 2010. “Simulating Carbon Exchange Using a Regional Atmospheric Model Coupled to an Advanced Land-Surface Model.” Biogeosciences 7 (8): 2397–2417. doi:10.5194/bg-7-2397-2010.

Winderlich, J., H. Chen, C. Gerbig, T. Seifert, O. Kolle, J. V. Lavrič, C. Kaiser, A. Höfer, and M. Heimann. 2010. “Continuous Low-Maintenance CO2/CH4/H2O Measurements at the Zotino Tall Tower Observatory (ZOTTO) in Central Siberia.” Atmospheric Measurement Techniques 3 (4): 1113–28. doi:10.5194/amt-3-1113-2010.

Hidy, D., L. Haszpra, Z. Barcza, A. Vermeulen, Z. Tuba, and Z. Nagy. 2009. “Modelling of Carbon Isotope Discrimination by Vegetation.” Photosynthetica 47 (3): 457–70. doi:10.1007/s11099-009-0070-z.

Schulze, E D, S Luyssaert, P Ciais, A Freibauer, and I. A. Janssens et al. 2009. “Importance of Methane and Nitrous Oxide for Europe’s Terrestrial Greenhouse-Gas Balance.” Nature Geoscience 3 (1). Nature Publishing Group: 65–65. doi:10.1038/ngeo741.

Tolk, L.F., W. Peters, A.G.C.A. Meesters, M. Groenendijk, A.T. Vermeulen, G.J. Steeneveld, and A.J. Dolman. 2009. “Modelling Regional Scale Surface Fluxes, Meteorology and CO2 Mixing Ratios for the Cabauw Tower in the Netherlands.” Biogeosciences 6 (10).