

# Publication List of Christof Ammann

(BLACK: PEER-REVIEWED JOURNALS; BLUE: OTHER JOURNALS AND BOOKS)

## 2018

Emmel, C., Winkler, A., Hörtnagl, L., Reville, A., Ammann, C., D'Odorico, P., Buchmann, N., and Eugster, W.: Integrated management of a Swiss cropland is not sufficient to preserve its soil carbon pool in the long term, *Biogeosciences*, 15, 5377-5393, 2018.

Huguenin-Elie, O., Nyfeler, D., Ammann, C., Latsch, A., Richner, W.: Einfluss der Gülleapplikationstechnik auf Ertrag und Stickstoffflüsse im Grasland, *Agrarforschung Schweiz*, 9 (7–8), 236–247, 2018.

Voglmeier, K., Jocher, M., Häni, C., and Ammann, C.: Ammonia emission measurements of an intensively grazed pasture, *Biogeosciences*, 15, 4593-4608, 2018.

## 2017

Molina-Herrera, S., Haas, E., Grote, R., Kiese, R., Klatt, S., Kraus, D., Kampffmeyer, T., Friedrich, R., Andreae, H., Loubet, B., Ammann, C., Horváth, L., Larsen, K., Gruening, C., Frumau, A., Butterbach-Bahl, K., Importance of soil NO emissions for the total atmospheric NO<sub>x</sub> budget of Saxony, Germany, *Atmospheric Environment*, 152, 61-76, 2017.

## 2016

Zöll, U., Brümmer, C., Schrader, F., Ammann, C., Ibrom, A., Flechard, C. R., Nelson, D. D., Zahniser, M., and Kutsch, W. L.: Surface–atmosphere exchange of ammonia over peatland using QCL-based eddy-covariance measurements and inferential modeling, *Atmospheric Chemistry and Physics*, 16, 11283-11299, 2016.

Felber, R., Bretscher, D., Münger, A., Neftel, A., and Ammann, C.: Determination of the carbon budget of a pasture: effect of system boundaries and flux uncertainties, *Biogeosciences*, 13, 2959-2969, 2016.

Molina-Herrera, S., Haas, E., Klatt, S., Kraus, D., Augustin, J., Magliulo, V., Tallec, T., Ceschia, E., Ammann, C., Loubet, B., Skiba, U., Jones, S., Brümmer, C., Butterbach-Bahl, K., Kiese, R.: A modeling study on mitigation of N<sub>2</sub>O emissions and NO<sub>3</sub> leaching at different agricultural sites across Europe using LandscapeDNDC, *Science of The Total Environment*, 553, 128-140, 2016.

Felber, R., Neftel, A., and Ammann, C.: Discerning the cows from the pasture: Quantifying and partitioning the NEE of a grazed pasture using animal position data, *Agricultural and Forest Meteorology*, 216, 37-47, 2016.

## 2015

Langford, B., Acton, W., Ammann, C., Valach, A., and Nemitz, E.: Eddy-covariance data with low signal-to-noise ratio: time-lag determination, uncertainties and limit of detection, *Atmospheric Measurement Techniques*, 8, 4197–4213, 2015.

Ganzeveld, L., Ammann, C., and Loubet, B.: Modelling Atmosphere-Biosphere Exchange of Ozone and Nitrogen Oxides, In: R.-S. Massad and B. Loubet (Eds.), *Review and Integration of Biosphere-Atmosphere Modelling of Reactive Trace Gases and Volatile Aerosols*, pp.85-106, Springer Netherlands, 2015.

Loubet, B., Ammann, C., Castell, J.F., Emberson, L., Ganzeveld, L., Kowalski, A.S., Laville, P., Merbold, L., Personne, E., Stella, P., Tuovinen, J.-P. and Tuzet, A.: Synthesis According to Compounds – O<sub>3</sub> and NO<sub>x</sub> Exchange, In: R.-S. Massad and B. Loubet (eds.), *Review and Integration of Biosphere-Atmosphere Modelling of Reactive Trace Gases and Volatile Aerosols*, pp.163-168, Springer Netherlands, 2015.

Theobald, M., Loubet, B., Ammann, C., Branislava, L., Chojnicki, B., Ganzeveld, L., Grosz, B., Kaasik, M., Noe, S., Olejnik, J., Rinne, J., Shapkalijevski, M., Simpson, D., Tchepel, O., Tuovinen, J.-P., Weidinger, T. and Wichink Kruit, R.: In-Canopy Turbulence—State of the Art and Potential Improvements, In: R.-S. Massad and B. Loubet (eds.), *Review and Integration of Biosphere-Atmosphere Modelling of Reactive Trace Gases and Volatile Aerosols*, pp.215-224, Springer Netherlands, 2015.

Wohlfahrt, G., Amelynck, C., Ammann, C., Arneth, A., Bamberger, I., Goldstein, A. H., Gu, L., Guenther, A., Hansel, A., Heinesch, B., Holst, T., Hörtnagl, L., Karl, T., Laffineur, Q., Neftel, A., McKinney, K., Munger, J. W., Pallardy, S. G., Schade, G. W., Seco, R., and Schoon, N.: An ecosystem-scale perspective of the net land methanol flux: synthesis of micrometeorological flux measurements, *Atmospheric Chemistry and Physics*, 15, 7413-7427, 2015.

Felber, R., Münger, A., Neftel, A., and Ammann, C.: Eddy covariance methane flux measurements over a grazed pasture: effect of cows as moving point sources, *Biogeosciences*, 12, 3925-3940, 2015.

Damm, A., Guanter, L., Paul-Limoges, E., van der Tol, C., Hueni, A., Buchmann, N., Eugster, W., Ammann, C., Schaepman, M.E.: Far-red sun-induced chlorophyll fluorescence shows ecosystem-specific relationships to gross primary production: An assessment based on observational and modeling approaches, *Remote Sensing of Environment*, 166, 91–105, 2015.

Wild, M., Folini, D., Hakuba, M.Z., Schär, C., Seneviratne, S.I., Kato, S., Rutan, D., Ammann, C., Wood, E.F., König-Langlo, G.: The energy balance over land and oceans: an assessment based on direct observations and CMIP5 climate models, *Climate Dynamics*, 44, 3393–3429, 2015.

Plake, D., Stella, P., Moravek, A., Mayer, J.-C., Ammann, C., Held, A., Trebs, I.: Comparison of ozone deposition measured with the dynamic chamber and the eddy covariance method, *Agricultural and Forest Meteorology*, 206, 97-112, 2015.

Xia, J., Luo, Y., Niu, S., Ciais, P., Janssens, I., Chen, J., Ammann, C., Blanken, P., Cescatti, A., Bonal, D., Buchmann, N., Curtis, P., Chen, S., Dong, J., Flanagan, L., Frankenberg, C., Georgiadis, T., Gough, C.: Joint control of terrestrial ecosystem productivity by plant phenology and physiology. *Proceedings of the National Academy of Sciences*, 112, 2788-2793, 2015.

## 2014

Tang, X., Li, H., Desai, A.R., Nagy, Z., Luo, J., Kolb, T.E., Oliosio, A., Xu, X., Yao, L., Kutsch, W., Pilegaard, K., Köstner, B., Ammann, C.: How is water-use efficiency of terrestrial ecosystems distributed and changing on Earth? *Scientific Reports*, 4, 7483; DOI:10.1038/srep07483, 2014.

Volk, M., Wolff, V., Bassin, S., Ammann, C., Fuhrer, J.: High tolerance of subalpine grassland to long-term ozone exposure is independent of N input and climatic drivers, *Environmental Pollution*, 189, 161-168, 2014.

## 2013

Stella, P., Kortner, M., Ammann, C., Foken, T., Meixner, F. X., and Trebs, I.: Measurements of nitrogen oxides and ozone fluxes by eddy covariance at a meadow: evidence for an internal leaf resistance to NO<sub>2</sub>, *Biogeosciences*, 10, 5997–6017, 2013.

Wolf, S., Eugster, W., Ammann, C., Häni, M., Zielis, S., Hiller, R., Stieger, J., Immer, D., Merbold, L., Buchmann, N.: Contrasting response of grassland versus forest carbon and water fluxes to spring drought in Switzerland. *Environmental Research Letters*, 8(3), 035007, 2013.

Felber, R., Ammann, C.: Position monitoring of grazing cows for greenhouse gas emission measurements on pastures by micrometeorological methods. Proceedings of 5th Greenhouse Gases and Animal Agriculture Conference, *Advances in Animal Biosciences*, 4 (Part 2), 468, 2013

Ammann, C., Leifeld, J., Jocher, M., Neftel, A., Fuhrer, J.: Effect of grassland renovation on the greenhouse gas budget of an intensive forage production system. Proceedings of 5th Greenhouse Gases and Animal Agriculture Conference, *Advances in Animal Biosciences*, 4 (Part 2), 284, 2013

Brümmer, C., Marx, O., Kutsch, W., Ammann, C., Wolff, V., Flechard, C., Freibauer A.: Fluxes of total reactive atmospheric nitrogen ( $\Sigma N_r$ ) using eddy covariance above arable land. *Tellus B*, 65, 19770, doi:10.3402/tellusb.v65i0.19770, 2013.

## 2012

Ammann, C., Wolff, V., Marx, O., Brümmer, C., Neftel, A.: Measuring the biosphere-atmosphere exchange of total reactive nitrogen by eddy covariance, *Biogeosciences*, 9, 4247–4261, 2012.

De Bruijn, A. M. G., Calanca, P., Ammann, C., and Fuhrer, J.: Differential long-term effects of climate change and management on stocks and distribution of soil organic carbon in productive grasslands, *Biogeosciences*, 9, 1997–2012, 2012.

Marx, O., Brümmer, C., Ammann, C., Wolff, V., Freibauer, A.: TRANC – a novel fast-response converter to measure total reactive atmospheric nitrogen. *Atmos. Meas. Tech.*, 5, 1045–1057, 2012.

Sintermann, J., Neftel, A., Ammann, C., Häni, C., Hensen, A., Loubet, B., Flechard, C. R.: Are ammonia emissions from field-applied slurry substantially over-estimated in European emission inventories? *Biogeosciences*, 9, 1611–1632, 2012.

Niu, S., Luo, Y., Fei, S., Yuan, W., Schimel, D., Law, B.E., Ammann, C. and many others: Thermal optimality of net ecosystem exchange of carbon dioxide and underlying mechanisms. *New Phytologist*, 194, 775–783, 2012.

Rinne, J. and Ammann, C.: Disjunct Eddy Covariance Method. In: M. Aubinet et al. (eds.), *Eddy Covariance: A Practical Guide to Measurement and Data Analysis*, Springer Atmospheric Sciences, ISBN 978 94 007 2350 4, pp. 291-307, 2012.

Wild, M., Roesch, A., and Ammann, C.: Global dimming and brightening – evidence and agricultural implications, *CAB Reviews*, 7 (003), 1-7, 2012.

## 2011

Mahecha, M.D., Reichstein, M., Carvalhais, N., Lasslop, G., Lange, H., Seneviratne, S.I., Vargas, R., Ammann, C., Arain, M.A., Cescatti, A., Janssens, I.A., Migliavacca, M., Montagnani, L., Richardson, A.D.: Response to Comment on “Global Convergence in the Temperature Sensitivity of Respiration at Ecosystem Level”. *Science*, 331, 1265, 2011.

Sintermann, J., Spirig, C., Jordan, A., Kuhn, U., Ammann, C., and Neftel, A.: Eddy covariance flux measurements of ammonia by high temperature chemical ionisation mass spectrometry, *Atmospheric Measurement Techniques*, 4, 599-616, 2011.

Calanca, P.L., Smith, P., Holzkämper, A., Ammann, C.: Die Referenzverdunstung und ihre Anwendung in der Agrarmeteorologie. *Agrarforschung Schweiz*, 2, 176-183, 2011.

Sintermann, J., Ammann, C., Kuhn, U., Spirig, C., Hirschberger, R., Gärtner, A., and Neftel, A.: Determination of field scale ammonia emissions for common slurry spreading practice with two independent methods, *Atmos. Meas. Tech.*, 4, 1821–1840, 2011.

Leifeld, J., Ammann, C., Neftel, A., Fuhrer, J.: A comparison of repeated soil inventory and carbon flux budget to detect soil carbon stock changes after conversion from cropland to grasslands. *Global Change Biology*, 17, 3366–3375, 2011.

Kuhn, U., Sintermann, J., Spirig, C., Jocher, M., Ammann, C., Neftel, A.: Basic biogenic aerosol precursors: agricultural source attribution of volatile amines revised. *Geophysical Research Letters*, 38, L16811, doi:10.1029/2011GL047958, 2011.

Ryu, Y., Baldocchi, D.D., Black, T.A., Detto, M., Leuning, R., Miyata, A., Reichstein, M., Vargas, R., Ammann, C., Beringer, J., Flanagan, L.B., Gu, L., Hutley, L., Kim, J., Law, B.E., McCaughey, H., Moors, E., Rambal, S., Vesala, T., Richardson, A.D.: On the temporal upscaling of evapotranspiration from instantaneous remote sensing measurements to 8-day mean daily-sums. *Agric. Forest Meteorol.*, 152, 212– 222, 2011.

Groenendijk, M., Dolman, A. J., Ammann, C., Arneth, A., Cescatti, A., Dragoni, D., Gash, J. H. C., Gianelle, D., Gioli, B., Kiely, G., Knohl, A., Law, B. E., Lund, M., Marcolla, B., van der Molen, M. K., Montagnani, L., Richardson, A. D., Roupsard, O., Verbeeck, H., Wohlfahrt, G.: Seasonal variation of photosynthetic model parameters and leaf area index from global Fluxnet eddy covariance data. *Journal of Geophysical Research – Biogeosciences*, 116, G04027, doi:10.1029/2011JG001742, 2011.

## 2010

Spirig, C., Flechard, C.R., Ammann, C., and Neftel, A.: The annual ammonia budget of fertilised cut grassland - Part 1: Micrometeorological flux measurements and emissions after slurry application. *Biogeosciences*, 7, 521–536, 2010.

Flechard, C.R., Spirig, C., Neftel, A. and Ammann, C.: The annual ammonia budget of fertilised cut grassland - Part 2: Seasonal variations and compensation point modeling. *Biogeosciences*, 7, 537–556, 2010.

Wolff, V., Trebs, I., Ammann, C., and Meixner, F.X.: Aerodynamic gradient measurements of the NH<sub>3</sub>-HNO<sub>3</sub>-NH<sub>4</sub>NO<sub>3</sub> triad using a wet chemical instrument: an analysis of precision requirements and flux errors. *Atmospheric Measurement Techniques*, 3, 187-208, 2010.

Neftel, A., Ammann, C., Fischer, C., Spirig, C., Conen, F., Emmenegger, L., Tuzson, B., and Wahlen, S.: N<sub>2</sub>O exchange over managed grassland: Application of a quantum cascade laser spectrometer for micrometeorological flux measurements. *Agricultural and Forest Meteorology*, 150(6), 775-785, 2010.

Yi, C., Ricciuto, D., Li, R., and many others incl. Ammann, C., Fuhrer, J.: Climate control of terrestrial carbon exchange across biomes and continents. *Environmental Research Letters*, 5, 034007, 2010.

Mahecha, M.D., Reichstein, M., Carvalhais, N., Lasslop, G., Lange, H., Seneviratne, S.I., Vargas, R., Ammann, C., Arain, M.A., Cescatti, A., Janssens, I.A., Migliavacca, M., Montagnani, L., Richardson, A.D.: Global Convergence in the Temperature Sensitivity of Respiration at Ecosystem Level. *Science*, 329, 838-840, 2010.

Ammann, C., Spirig, C., Neftel, A.: Validation of a simple footprint tool for trace gas flux measurements above agricultural fields. *Proceedings of the 29th Conference on Agricultural and Forest Meteorology*, Keystone CO, 2-6 August 2010, American Meteorological Society, Boston, 2010. ([http://ams.confex.com/ams/19Ag19BLT9Urban/techprogram/paper\\_172696.htm](http://ams.confex.com/ams/19Ag19BLT9Urban/techprogram/paper_172696.htm))

Ammann, C., Marx, O., Wolff, V., Neftel, A.: Measuring the biosphere-atmosphere exchange of total reactive nitrogen by eddy covariance using a novel converter. *Proceedings of the 29th Conference on Agricultural and Forest Meteorology*, Keystone CO, 2-6 August 2010, American Meteorological Society, Boston, 2010. ([ams.confex.com/ams/19Ag19BLT9Urban/techprogram/paper\\_172693.htm](http://ams.confex.com/ams/19Ag19BLT9Urban/techprogram/paper_172693.htm))

Spirig, C., Sintermann, J., Ammann, C., Kuhn, U., Neftel, A.: Field scale measurements of the NH<sub>3</sub> emissions after organic fertilizer application: comparison of different methods. *Proceedings of the 29th Conference on Agricultural and Forest Meteorology*, Keystone CO, 2-6 August 2010, American Meteorological Society, Boston.

Teuling, A.J., Seneviratne, S.I., Stöckli, R., Reichstein, M., Moors, E., Ciais, P., Luyssaert, S., van den Hurk, B., Ammann, C., Bernhofer, C., Dellwik, E., Gianelle, D., Gielen, B., Grünwald, T., Klumpp, K., Montagnani, L., Moureaux, C., Sottocornola, M., Wohlfahrt, G.: Contrasting response of European forest and grassland energy exchange to heatwaves. *Nature Geoscience* 3, 722–727, 2010.

Tuzson, B., Hiller, R., Zeyer, K., Eugster, W., Neftel, A., Ammann, C., and Emmenegger, L.: Field intercomparison of two optical analyzers for CH<sub>4</sub> eddy covariance flux measurements. *Atmospheric Measurement Techniques*, 3, 1519–1531, 2010.

Ciais, P., Soussana, J.F., Vuichard, N., Luyssaert, S., Don, A., Janssens, I.A., Piao, S.L., Dechow, R., Lathière, J., Maignan, F., Wattenbach, M., Smith, P., Ammann, C., Freibauer, A., Schulze, E.D., and the CARBOEUROPE Synthesis Team: The greenhouse gas balance of European grasslands. *Biogeosciences Discussions*, 7, 5997-6050, 2010.

Eugster, W., Moffat, A., Ceschia, E., Aubinet, M., Ammann, C. and many others: Management effects on European cropland respiration. *Agriculture, Ecosystems and Environment*, 139, 346-362, 2010.

## 2009

Teuling, A.J., Hirschi, M., Ohmura, A., Wild, M., Reichstein, M., Ciais, P., Buchmann, N., Ammann, C., Montagnani, L., Richardson, A.D., Wohlfahrt, G., and Seneviratne, S.I.: A regional perspective on trends in continental evaporation. *Geophysical Research Letters*, 36, L02404, doi:10.1029/2008GL036584, 2009.

Pape, L., Ammann, C., Nyfeler-Brunner, A., Spirig, C., Hens, K., and Meixner, F.X.: An automated dynamic chamber system for surface exchange measurement of non-reactive and reactive trace gases of grassland ecosystems. *Biogeosciences*, 6, 405-429, 2009.

Beer, C., Ciais, P., Reichstein, M., Baldocchi, D., Law, B. E., Papale, D., Soussana, J.-F., Ammann, C., Buchmann, N., Frank, D., Gianelle, D., Janssens, I. A., Knohl, A., Köstner, B., Moors, E., Rouspard, O., Verbeeck, H., Vesala, T., Williams, C. A., Wohlfahrt, G.: Temporal and among-site variability of inherent water use efficiency at the ecosystem level, *Global Biogeochem. Cycles*, 23, GB2018, doi:10.1029/2008GB003233, 2009.

Ammann, C., Spirig, C., Leifeld, J., and Neftel, A.: Assessment of the Nitrogen and Carbon Budget of Two Managed Grassland Fields. *Agriculture, Ecosystems and Environment*, 133, 150–162, 2009.

Ammann, C., Brunner, A., Spirig, C., and Neftel, A.: Emission of oxygenated VOC from managed grassland. In: S. Fuzzi and M. Maione (Eds.), *Atmospheric Composition Change, Causes and Consequences - Local to Global*, pp.38-45, Aracne editrice, Roma, 2009.

Ammann, C., Neftel, A., Spirig, C., Leifeld, J., and Fuhrer, J.: Stickstoff-Bilanz von Mähwiesen mit und ohne Düngung. *AgrarForschung*, 16(9), 348-353, 2009.

Fowler, D., Pilegaard, K., Sutton, M.A., Ambus, P., Raivonen, M., Duyzer, J., Simpson, D., Fagerli, H., Schjoerring, J.K., Neftel, A., Burkhardt, J., Daemmgen, U., Neiryneck, J., Personne, E., Wichink-Kruit, R., Butterbach-Bahl, K., Flechard, C., Tuovinen, J.P., Coyle, M., Gerosa, G., Loubet, B., Altimir, N., Gruenhage, L., Ammann, C., Cieslik, S., Paoletti, E., Mikkelsen, T.N., Ro-Poulsen, H., Cellier, P., Cape, J.N., Horváth, L., Loreto, F., Niinemets, Ü., Palmer, P. I., Rinne, J., Misztal, P., Nemitz, E., Nilsson, D., Pryor, S., Gallagher, M.W., Vesala, T., Skiba, U., Brüeggemann, N., Zechmeister-Boltenstern, S., Williams, J., O'Dowd, C., Facchini, M. C., de Leeuw, G., Flossman, A., Chaumerliac, N., and Erisman, J.W.: Atmospheric Composition Change: Ecosystems - Atmosphere interactions. *Atmospheric Environment*, 43, 5193–5267, 2009.

Trebs, I., Bohn, B., Ammann, C., Rummel, U., Blumthaler, M., Königstedt, R., Meixner, F. X., Fan, S., and Andreae, M. O.: Relationship between the NO<sub>2</sub> photolysis frequency and the solar global irradiance, *Atmospheric Measurement Techniques*, 2, 725-739, 2009.

Yeluripati, J.B., van Oijen, M., Wattenbach, M., Neftel, A., Ammann, C., Parton, W.J., Smith, P.: Bayesian calibration as a tool for initialising the carbon pools of dynamic soil models, *Soil Biology and Biochemistry*, 41 (12), 2579-2583, 2009.

## 2008

Davison, B., Brunner, A., Ammann, C., Spirig, C., Jocher, M., and Neftel, A.: Cut induced VOC emissions from agricultural grasslands. *Plant Biology*, 10, 76-85, 2008.

Folkers, A., Hüve, K., Ammann, C., Dindorf, T., Kesselmeier, J., Kleist, E., Kuhn, U., Uerlings, R., and Wildt, J.: Methanol emissions from deciduous tree species: dependence on temperature and light intensity. *Plant Biology*, 10, 65–75, 2008.

Neftel, A., Spirig, C., Ammann, C.: Application and test of a simple tool for operational footprint evaluations. *Environmental Pollution*, 152, 644-652, 2008.

Bahn, M., Rodeghiero, M., Anderson, M., Dore, S., Gimeno, S., Drösler, M., Williams, M., Ammann, C., Berninger, F., Flechard, C., Jones, S., Balzarolo, M., Kumar, S., Newsely, C., Priwitzer, T., Raschi, A., Siegwolf, R., Susiluoto,

S., Tenhunen, J., Wohlfahrt, G., Cernusca, A.: Soil respiration in European grasslands in relation to climate and assimilate supply. *Ecosystems*, 11, 1352–1367, 2008.

Fritsche, J., Wohlfahrt, G., Ammann, C., Zeeman, M.J., Hammerle, A., Obrist, D., and Alewell, C.: Summertime elemental mercury exchange of temperate grasslands on an ecosystem-scale. *Atmospheric Chemistry and Physics*, 8, 7709–7722, 2008.

## 2007

Flechard C.R., Neftel A., Jocher M., Ammann C., Leifeld J., and Fuhrer J. (2007) Temporal changes in soil pore space CO<sub>2</sub> concentration and storage under permanent grassland. *Agricultural and Forest Meteorology*, 142, 66–84.

Vuichard N., Soussana J., Ciais P., Viovy N., Ammann C., Calanca P., Clifton-Brown J., Fuhrer J., Jones M., and Martin C. (2007) Estimating the greenhouse gas fluxes of European grasslands with a process-based model: 1. Model evaluation from in situ measurements, *Global Biogeochemical Cycles*, 21, GB1004, doi:10.1029/2005GB002611.

Keller F., Bassin S., Ammann C., and Fuhrer J. (2007) High-resolution modelling of AOT40 and stomatal ozone uptake in wheat and grassland: A comparison between 2000 and the hot summer of 2003 in Switzerland, *Environmental Pollution*, 146, 671-677.

Ammann C., Flechard C., Leifeld J., Neftel A., and Fuhrer J. (2007) The carbon budget of newly established temperate grassland depends on management intensity, *Agriculture, Ecosystems and Environment*, 121, 5–20.

Flechard C.R., Ambus P., Skiba U., Rees R.M., Hensen A., van Amstel A., van den Pol-van Dasselaar A., Soussana J.-F., Jones M., Clifton-Brown J., Raschi A., Horvath L., Neftel A., Jocher M., Ammann C., Leifeld J., Fuhrer J., Calanca P., Thalman E., Pilegaard K., Di Marco C., Campbell C., Nemitz E., Hargreaves K.J., Levy P., Ball B.C., Jones S., van de Bulk W.C.M., Groot T., Blom M., Domingues R., Kasper G., Allard V., Jolivot D., Cellier P., Laville P., Henault C., Bizouard F., Abdalla M., Williams M., Baronti S., Berretti F., and Grosz B. (2007) Effects of climate and management intensity on nitrous oxide emissions in grassland systems across Europe, *Agriculture, Ecosystems and Environment*, 121, 135-152.

Soussana J.F., Allard V., Pilegaard K., Ambus P., Ammann C., Campbell C., Ceschia E., Clifton-Brown J., Czobel S., Domingues R., Flechard C., Fuhrer J., Hensen A., Horvath L., Jones M., Kasper G., Martin C., Nagy Z., Neftel A., Raschi A., Baronti S., Rees R.M., Skiba U., Stefani P., Manca G., Sutton M., Tuba Z., Valentini R. (2007) Full accounting of the greenhouse gas (CO<sub>2</sub>, N<sub>2</sub>O, CH<sub>4</sub>) budget of nine European grassland sites, *Agriculture, Ecosystems and Environment*, 121, 121-134.

Gilmanov T.G., Soussana J.-F., Aires, L., Allard V., Ammann C., Balzarolo M., Barcza Z., Bernhofer C., Campbell C.L., Cernusca A., Cescatti A., Clifton-Brown J., Dirks B.O.M., Dore S., Eugster W., Fuhrer J., Gimeno C., Gruenwald T., Haszpra L., Hensen A., Ibrom A., Jacobs A.F.G., Jones M.B., Lanigan G., Laurila T., Lohila A., Manca G., Marcolla B., Nagy Z., Pilegaard K., Pinter K., Pio C., Raschi A., Rogiers N., Sanz M.J., Stefani P., Sutton M., Tuba Z., Valentini R., Williams M.L., Wohlfahrt G. (2007) Partitioning European grassland net ecosystem CO<sub>2</sub> exchange into gross primary productivity and ecosystem respiration using light response function analysis, *Agriculture, Ecosystems and Environment*, 121, 93-120.

Owen K.E., Tenhunen J., Reichstein M., Wang Q., Falge E., Geyer R., Xiao X., Stoy P., Ammann C., Arain A., Aubinet M., Aurela M., Bernhofer C., Chojnicki B.H., Granier A., Gruenwald T., Hadley J., Heinesch B., Hollinger D., Knohl A., Kutsch W., Lohila A., Meyers T., Moors E., Moureaux C., Pilegaard K., Saigusa N., Verma S., Vesala T., and Vogel C. (2007) Linking flux network measurements to continental scale simulations: ecosystem carbon dioxide exchange capacity under non-water-stressed conditions. *Global Change Biology*, 13(4), 734-760.

Kuhn U., Andreae M. O., Ammann C., Araujo A. C., Brancaleoni E., Ciccioli P., Dindorf T., Frattoni M., Gatti L. V., Ganzeveld L., Kruijt B., Lelieveld J., Lloyd J., Meixner F. X., Nobre A. D., Pöschl U., Spirig C., Stefani P., A.Thielmann, Valentini R., and Kesselmeier J. (2007) Isoprene and monoterpene fluxes from Central Amazonian rainforest inferred from tower-based and airborne measurements, and implications on the atmospheric chemistry and the local carbon budget, *Atmospheric Chemistry and Physics*, 7, 2855–2879.

Neftel A., Flechard C., Ammann C., Conen F., Emmenegger L., and Zeyer K. (2007) Experimental assessment of N<sub>2</sub>O background fluxes of grassland systems. *Tellus*, 59B, 470–482.

Brunner A., Ammann C., Spirig C., and Neftel A. (2007) Methanol exchange between grassland vegetation and the atmosphere, *Biogeosciences*, 4, 395–410.

Ammann C., Spirig C., Fischer C., Leifeld J., and Neftel A. (2007) Contradiction to IPCC methodology?, Interactive comment on 'N<sub>2</sub>O release from agro-biofuel production negates global warming reduction by replacing fossil fuels' by P. J. Crutzen et al., *Atmospheric Chemistry and Physics Discussions*, 7, S4779–S4781.

Rummel U., Ammann C., Kirkman G.A., Moura M.A.L., Foken, T., Andreae M.O., and Meixner F.X. (2007) Seasonal variation of ozone deposition to a tropical rain forest in southwest Amazonia. *Atmospheric Chemistry and Physics*, 7, 5415–5435 ([www.atmos-chem-phys.net/7/5415/2007/](http://www.atmos-chem-phys.net/7/5415/2007/)).

## 2006

Ammann C., Brunner A., Spirig C., and Neftel A. (2006) Technical note on water vapour concentration and flux measurements with PTR-MS, *Atmospheric Chemistry and Physics*, 6, 4643–4651.

Jäggi M., Ammann C., Neftel A., Fuhrer J. (2006) Environmental control of ozone concentration profiles in a grassland canopy, *Atmospheric Environment*, 40(28), 5496–5507.

## 2005

Spirig C., Neftel A., Ammann C., Dommen J., Grabmer W., Thielmann A., Schaub A., Beauchamp J., Wisthaler A., Hansel A. (2005) Eddy covariance flux measurements of biogenic VOCs during ECHO 2003 using proton transfer reaction mass spectrometry. *Atmospheric Chemistry and Physics*, 5, 465–481.

Kuhn U., Dindorf T., Ammann C., Holzinger R., Ausma S., Kenntner T., Helleis F., and Kesselmeier J. (2005) Design and field application of an automated cartridge sampler for VOC concentration and flux measurements. *Journal of Environmental Monitoring*, 2005, 7, 568 – 576.

Simon E., Lehmann B., Ammann C., Ganzeveld L., Rummel U., Meixner F.X., Nobre A.D., Araujo A., and Kesselmeier J. (2005) On Lagrangian dispersion of <sup>222</sup>Rn, H<sub>2</sub>O, and CO<sub>2</sub> within the Amazon rain forest. *Agricultural and Forest Meteorology*, 132, 286–304.

Simon, E., Meixner, F.X., Rummel, U., Ganzeveld, L., Ammann, C., Kesselmeier, J. (2005) Coupled carbon-water exchange of the Amazon rain forest. II. Comparison of predicted and observed seasonal exchange of energy, CO<sub>2</sub>, isoprene and ozone at a remote site in Rondônia. *Biogeosciences*, 2, 255–275.

Flechard C.R., Neftel A., Jocher M., Ammann C., and Fuhrer J. (2005) Bi-directional soil/atmosphere N<sub>2</sub>O exchange over two mown grassland systems with contrasting management practices, *Global Change Biology*, 11(12), 2114–2127.

Neftel, A., Ammann C., Calanca, P., Flechard, C., Fuhrer, J., Leifeld, J., Jocher, M. (2005) Treibhausgasquellen und -senken: Die "Kyoto-Wiese", *AgrarForschung*, 12 (8), 356-361.

## 2004

Ammann C., Flechard C., Fuhrer J., and Neftel A. (2004) Greenhouse Gas Budget of Intensively and Extensively Managed Grassland. In A. Lüscher et al. (Eds.), *Land Use Systems in Grassland Dominated Regions, Grassland Science in Europe*, Volume 9, p.130-132, vdf Hochschulverlag, Zürich, Switzerland.

Zollner G.E., Torr S.J., Ammann C., and Meixner F.X. (2004) Dispersion of carbon dioxide plumes in African woodland: Implications for host-finding by tsetse flies. *Physiological Entomology*, 29, 381-394.

Ammann C., Spirig C., Neftel A., Steinbacher M., Komenda M., and Schaub A. (2004) Application of PTR-MS for Measurements of Biogenic VOC in a Deciduous Forest. *International Journal of Mass Spectrometry*, 239, 87–101.

Steinbacher M., Dommen J., Ammann C., Spirig C., Neftel A., and Prévôt A. S. H. (2004) Performance Characteristics of a Proton-Transfer-Reaction Mass Spectrometer (PTR-MS) derived from laboratory and field measurements. *International Journal of Mass Spectrometry*, 239, 117–128.  
(IJMS Best Student Paper Award 2004)

## 2002

Ammann, C., and F. X. Meixner (2002) Stability dependence of the relaxed eddy accumulation coefficient for various scalar quantities, *J. Geophys. Res.*, 107(D8), 4071, doi:10.1029/2001JD000649.

Rummel, U., C. Ammann, A. Gut, F. X. Meixner, and M. O. Andreae (2002) Eddy covariance measurements of nitric oxide flux within an Amazonian rain forest, *J. Geophys. Res.*, 107(D20), 8050, doi:10.1029/2001JD000520.

Kuhn U., S. Rottenberger, T. Biesenthal, C. Ammann, A. Wolf, G. Schebeske, S. T. Oliva, T. M. Tavares, and J. Kesselmeier (2002) Exchange of short-chain monocarboxylic acids by vegetation at a remote tropical forest site in Amazonia, *J. Geophys. Res.*, 107(D20), 8069, doi:10.1029/2000JD000303.

Gut, A., S. M. van Dijk, M. Scheibe, U. Rummel, M. Welling, C. Ammann, F. X. Meixner, G. A. Kirkman, M. O. Andreae, and B. E. Lehmann (2002) NO emission from an Amazonian rain forest soil: Continuous measurements of NO flux and soil concentration, *J. Geophys. Res.*, 107(D20), 8057, doi:10.1029/2001JD000521.

Gut, A., M. Scheibe, S. Rottenberger, U. Rummel, M. Welling, C. Ammann, G. A. Kirkman, U. Kuhn, F. X. Meixner, J. Kesselmeier, B. E. Lehmann, W. Schmidt, E. Müller, and M. T. F. Piedade (2002) Exchange fluxes of NO<sub>2</sub> and O<sub>3</sub> at soil and leaf surfaces in an Amazonian rain forest, *J. Geophys. Res.*, 107(D20), 8060, doi:10.1029/2001JD000654.

Kirkman, G. A., A. Gut, C. Ammann, L. V. Gatti, A. M. Cordova, M. A. L. Moura, M. O. Andreae, and F. X. Meixner (2002) Surface exchange of nitric oxide, nitrogen dioxide, and ozone at a cattle pasture in Rondônia, Brazil, *J. Geophys. Res.*, 107(D20), 8083, doi:10.1029/2001JD000523.

## 1999

Kuhn U., Ammann C., Wolf A., Meixner F.X., Andreae M.O., Kesselmeier J. (1999) Carbonyl sulfide exchange on an ecosystem scale: soil represents a dominant sink for atmospheric COS, *Atmospheric Environment*, 33, 995-1008.

Ammann C. (1999) *On the applicability of relaxed eddy accumulation and common methods for measuring trace gas fluxes*, PhD Thesis, Swiss Federal Institute of Technology ETH, Zürich, Switzerland ([http://e-collection.library.ethz.ch/view/eth:22840?q=Christof Ammann](http://e-collection.library.ethz.ch/view/eth:22840?q=Christof+Ammann)).

## 1998

Neftel A., Blatter A., Gut A., Högger D., Meixner F., Ammann C., Nathaus F.J. (1998) NH<sub>3</sub> soil and soil surface gas measurements in a triticale wheat field, *Atmospheric Environment*, 32(3), 499-505.

## 1997

Hofmann U., Weller D., Ammann C., Jork E., Kesselmeier J. (1997) Cryogenic trapping of atmospheric organic acids under laboratory and field conditions, *Atmospheric Environment*, 31(9), 1275-1284.

## 1996

Busch J., Lösch R., Ammann C., Meixner F.X. (1996) CO<sub>2</sub> and H<sub>2</sub>O gas exchange of a triticale field, I. Leaf level porometry, *Physics and Chemistry of the Earth*, 21(3), 143-149.

Ammann C., Meixner F.X., Busch J., Lösch R. (1996) CO<sub>2</sub> and H<sub>2</sub>O gas exchange of a triticale field, II. Micrometeorological flux studies and comparison with upscaling from porometric measurements, *Physics and Chemistry of the Earth*, 21(3), 151-155.