

JOHN C. LIN

Curriculum Vitae

<http://www.earth.uwaterloo.ca/~jcl/>

University of Waterloo (519)888-4567 ext. 33235 (PHONE)
 Dept. of Earth & Environmental Sciences (519)746-7484 (FAX)
 Waterloo, ON, CANADA N2L3G1 Email: jcl@uwaterloo.ca

Employment

Associate Professor, Dept. of Earth & Environmental Sciences, University of Waterloo, 2011~.
 Assistant Professor, Dept. of Earth & Environmental Sciences, University of Waterloo, 2008~2011.
 National Military Service, Air Force of Taiwan, 2007~2008.
 Assistant Professor, Dept. of Earth & Environmental Sciences, University of Waterloo, 2006~2007.
 UCAR/NOAA Postdoctoral Fellow in Climate and Global Change, Colorado State University, 2005~2006.
 Graduate Research Assistant, Dept. of Earth & Planetary Science, Harvard University, 1997~2003.

Professional Experience

Editorial Board Member for *Scientific Reports* (Nature Publishing Group), 2011~.
 Lead Convener for American Geophysical Union's Chapman Conference: *Advances in Lagrangian Modelling of the Atmosphere*, (Grindelwald, Switzerland), Oct. 2011.
 Founding member of the Univ. of Waterloo Interdisciplinary Centre on Climate Change, 2008~.
 Science Committee Member, Canadian Carbon Program, 2006~2011.
 North American Carbon Program (contributing author), 2001~2003.

Education

Harvard University	Ph.D. (Earth & Planetary Sciences)	2003	Cambridge, MA, USA
Harvard University	M.A. (Biology)	1997	Cambridge, MA, USA
Harvard College	B.A. (Biology)	1997	Cambridge, MA, USA
St. Mary's Int'l School	High School I.B. Diploma	1993	Tokyo, Japan

Awards/Honors

Ontario Early Researcher Award, 2008.
 NOAA Postdoctoral Fellowship in Climate and Global Change, 2004.
 National Center for Atmospheric Research Postdoctoral Fellowship (declined), 2004.
 Harvard University Distinction in Teaching Award, 2002.
 NASA Earth System Science Fellowship, 1998-2001.
 Harvard Weissman International Fellowship (for ecological research in Sri Lanka), 1995.

Teaching Experience

Instructor for “ <i>Environmental Informatics</i> ”, 2010~.	University of Waterloo
Instructor for “ <i>Atmospheric Motion and Physics</i> ”, 2009~.	University of Waterloo
Instructor for “ <i>Intro. to Atmospheric Science</i> ”, 2008~.	University of Waterloo
Mentor in Research Experience for Teachers (RET) program, National Science Foundation, 2004~2005.	
Teaching Fellow for “ <i>Environmental Risks and Disasters</i> ”, 2001.	Harvard University
Teaching Fellow for “ <i>The Atmosphere</i> ”, 1998.	Harvard University

Publications

In Preparation

2. Kim, M.G. and **J.C. Lin**, Biases in mixed-layer heights over North America: a multi-model climatology, To be Submitted to *J. Geophys. Res. - Atmospheres*.
1. Luus, K.A., R.E.J. Kelly, and **J.C. Lin**, Remote sensing trend analysis of pan-Arctic temperature and bioclimatological indices (north of 60N, 1982-2000), To be Submitted to *International Journal of Applied Earth Observation and Geoinformation*.

Books

36. *Lagrangian Modeling of the Atmosphere*, AGU Geophysical Monograph, edited by **Lin, J.C.**, D. Brunner, C. Gerbig, A. Stohl, A. Luhar, and P. Webley, 2012 (scheduled).
35. **Lin, J.C.**, A fully-Lagrangian approach to solving atmospheric dynamics, In *Meoscale Meteorological Modeling*, by Roger A. Pielke, Sr., 3rd Edition, Academic Press, 2012 (scheduled).

Journals: Submitted

34. Lin, I-I, T.Y. Ho, G.T.F. Wong, C. Hu, T.P. Fischer, **J.C. Lin**, and C.W. Hwang, Volcano-induced large scale carbon drawdown in a low nutrient low productivity desert, Submitted to *Science*.
33. Murdoch, N., **J.C. Lin**, and D. Worthy, Variability in CO₂ and CO over Canada: a wavelet perspective, Submitted to *Computers and Geosciences*.
32. Luus, K.A., **J.C. Lin**, R.E.J. Kelly, C.R. Duguay, M.C. English and R.I Hall, Snow-CO₂ relationships in the Arctic and sub-Arctic: Towards reducing the uncertainty of CO₂ flux estimates using cryospheric remote sensing, Submitted to *Progress in Physical Geography*.
31. Luus, K.A., R.E.J. Kelly, C.R. Duguay, **J.C. Lin** and Y. Gel. Pan-arctic linkages between AMSR-E snow water equivalent and AMSR-E growing season soil moisture, vegetation opacity and air temperature (2003-2008, north of 60N), *J. Geophys. Res.-Biogeosciences*, In Review.

Journals: Published or Accepted

30. Wen, D., **J.C. Lin**, D. Millet, A. Stein, and R.R. Draxler, A backward-time Lagrangian air quality model, *Atmospheric Environment*, Accepted.
29. **Lin, J.C.**, D. Brunner, and C. Gerbig (2012). Improving and applying Lagrangian models of the atmosphere, *EOS*, 93 (3), 17 January.
28. Erickson, T.A., A.M. Michalak, and **J.C. Lin** (2011), A data system for visualizing 4-D atmospheric CO₂ models and data, *OS Geo Journal*, 8, 37-47.
27. Chan, E. and **J.C. Lin** (2011). What is the value of agricultural census data in carbon cycle studies?, *J. Geophys. Res.-Biogeosciences*, 116(G03012), doi:10.1029/2010JG001617.
26. **Lin, J.C.**, D. Brunner, and C. Gerbig (2011). Studying atmospheric transport through Lagrangian models, *EOS*, 92 (21), 24 May.
25. Gourdji, S.M., K.L. Mueller, V. Yadav, D.N. Huntzinger, A.E. Andrews, M. Trudeau, G. Petron, T. Nehrkorn, J. Eluszkiewicz, J. Henderson, D. Wen, **J.C. Lin**, et al. (2011). North American CO₂ exchange: intercomparison of modeled estimates with results from a fine-scale atmospheric inversion, *Biogeosciences Discuss.*, 8, 6775-6832.
24. **Lin, J.C.**, M.R. Pejam, E. Chan, S.C. Wofsy, E.W. Gottlieb, H.A. Margolis, and J.H. McCaughey (2011). Attributing uncertainties in simulated biospheric carbon fluxes to different sources of error, *Global Biogeochemical Cycles*, 25 (GB2018), doi:10.1029/2010GB003884.
23. Wen, D., **J.C. Lin**, F. Meng, P.K. Gbor, Z. He, and J.J. Sloan (2011). Quantitative assessment of upstream source influences on total gaseous mercury observations in Ontario, Canada, *Atmospheric Chemistry and Physics*, 11, 1405-1415.
22. Nehrkorn, T., J. Eluszkiewicz, S.C. Wofsy, **J.C. Lin**, C. Gerbig, M. Longo, and S. Freitas (2010). Coupled Weather Research and Forecasting--Stochastic Time-Inverted Lagrangian Transport (WRF-STILT) Model, *Meteorology and Atmospheric Physics*, 107, 51-64.

21. **Lin, J.C.**, J.H. Tai, C.H. Feng, and D.E. Lin (2010). Towards improving forecasts of visibility in Taiwan: A statistical approach, *Terrestrial, Atmospheric and Oceanic Sciences*, 21(2), 359-374.
20. Alam, J. and **J.C. Lin** (2008). Toward a fully Lagrangian atmospheric modelling system, *Monthly Weather Review*, 136(12), 4653-4667.
19. Wang, J.-W., K. Wang, R.A. Pielke, **J.C. Lin**, and T. Matsui (2008). Towards a Robust Test on North America Warming Trend and Precipitable Water Content Increase, *Geophysical Research Letters*, 35(L18804), doi:10.1029/2008GL034564.
18. Gerbig, C., S. Korner, and **J.C. Lin** (2008). Vertical mixing in atmospheric tracer transport models: error characterization and propagation, *Atmospheric Chemistry and Physics*, 8, 591-602.
17. Mahadevan, P., S.C. Wofsy, D.M. Matross, X. Xiao, A.L. Dunn, **J.C. Lin**, et al., (2008). A Satellite-Based Biosphere Parameterization for Net Ecosystem CO₂ Exchange: Vegetation Photosynthesis and Respiration Model (VPRM), *Global Biogeochemical Cycles*, 22, doi:10.1029/2006GB002735.
16. Miller, S.M., D.M. Matross, A.E. Andrews, D.B. Millet, M. Longo, E.W. Gottlieb, A.I. Hirsch, C. Gerbig, **J.C. Lin**, et al., (2008). Sources of carbon monoxide and formaldehyde in North America determined from high-resolution atmospheric data, *Atmospheric Chemistry and Physics*, 8, 7673-7696.
15. **Lin, J.C.**, C. Gerbig., S.C. Wofsy, R. Draxler, V.Y. Chow, and E.W. Gottlieb (2007). Designing Lagrangian experiments to measure regional-scale trace gas fluxes, *J. Geophys. Res.*, 112 (D13312), doi:10.1029/2006JD008077.
14. Pielke, R.A. Sr., J. Adegoke, A. Beltran-Przekurat, C.A. Hiemstra, **J.C. Lin**, et al., (2007). An overview of regional land use and land cover impacts on rainfall, *Tellus*, 59B, 587-601, 2007.
13. **Lin, J.C.**, T. Matsui, R.A. Pielke, Sr., C. Kummerow (2006). Effects of biomass burning-derived aerosols on precipitation and clouds in the Amazon Basin: A satellite-based empirical study, *J. Geophys. Res.*, 111 (D19204), doi:10.1029/2005JD006884.
12. Hurst, D., **J.C. Lin**, P. Romashkin, C. Gerbig, et al., (2006). Continuing global significance of emissions of Montreal Protocol-restricted halocarbons in the United States and Canada, *J. Geophys. Res.*, 111 (D15302), doi:10.1029/2005JD006785.
11. **Lin, J.C.**, Gerbig, C., Wofsy, S.C., Daube, B.C., et al., (2006). What have we learned from intensive atmospheric sampling field programs of CO₂?, *Tellus*, 58B, 331-343.
10. Matross, D.M., A. Andrews, M. Pathmathevan, C. Gerbig, **J.C. Lin**, et al., (2006). Estimating regional carbon exchange in New England & Quebec by combining atmospheric, ground-based, and satellite data, *Tellus*, 58B, 344-358.
9. Gerbig, C., **J.C. Lin**, J.W. Munger, and S.C. Wofsy (2006). What can tracer observations in the continental boundary layer tell us about surface-atmosphere fluxes?, *Atmospheric Chemistry and Physics*, 6, 539-554.
8. **Lin, J.C.** and C. Gerbig (2005). Accounting for the effect of transport errors on tracer inversions, *Geophysical Research Letters*, 32 (L01802), doi:10.1029/2004GL021127.
7. **Lin, J.C.**, C. Gerbig, et al., (2004). An empirical analysis of the spatial variability of atmospheric CO₂: implications for inverse analyses and space-borne sensors, *Geophysical Research Letters*, 31 (L23104), doi:10.1029/2004GL020957.
6. **Lin, J.C.**, C. Gerbig, S.C. Wofsy, et al., (2004). Measuring fluxes of trace gases at regional scales by Lagrangian observations: Application to the CO₂ Budget and Rectification Airborne (COBRA) study, *J. Geophys. Res.*, 109 (D15304, doi:10.1029/2004JD004754).
5. Yi, C., K.J. Davis, P.S. Bakwin, A.S. Denning, N. Zhang, A. Desai, **J.C. Lin**, and C. Gerbig (2004). The observed covariance between ecosystem carbon exchange and atmospheric boundary layer dynamics at a site in northern Wisconsin, *J. Geophys. Res.*, 109 (D08302), doi:10.1029/2003JD004164.

4. **Lin, J.C.**, C. Gerbig, S.C. Wofsy, et al., (2003). A near-field tool for simulating the upstream influence of atmospheric observations: The Stochastic Time-Inverted Lagrangian Transport (STILT) model, *J. Geophys. Res.*, 108(D16), 4493, doi:10.1029/2002JD003161.
3. Gerbig, C., **J.C. Lin**, S.C. Wofsy, B.C. Daube, et al., (2003). Toward constraining regional-scale fluxes of CO₂ with atmospheric observations over a continent: 1. Observed spatial variability from airborne platforms, *J. Geophys. Res.*, 108(D24), 4756, doi:10.1029/2002JD003018.
2. Gerbig, C., **J.C. Lin**, S.C. Wofsy, B.C. Daube, et al., (2003). Toward constraining regional-scale fluxes of CO₂ with atmospheric observations over a continent: 2. Analysis of COBRA data using a receptor-oriented framework, *J. Geophys. Res.*, 108(D24), 4757, doi:10.1029/2003JD003770.
1. Chou, W.W., S.C. Wofsy, R.C. Harriss, **J.C. Lin**, C. Gerbig, and G.W. Sachse (2002). Net fluxes of CO₂ in Amazonia derived from aircraft observations, *J. Geophys. Res.*, 107(D22), 4614, 10.1029/2001JD001295.

Other Publications

5. **Lin, J.C.** and D. Worthy (2011). What do atmospheric greenhouse gas (GHG) concentrations tell us about regional sources and sinks in Canada? in "Ecosystems in Flux: Carbon, Climate and Disturbance in Canadian Forests and Peatlands", Published by the Canadian Carbon Program.
4. **Lin, J.C.** (2010). Climate change: a new dimension in international relations, Foreign Policy Newsletter, Taipei, Taiwan. (original document in English, translated to Mandarin)
3. Contributing Author to *Science Implementation Strategy to the North American Carbon Program*, U.S. Global Change Research Program, 2004.
2. Wofsy, S.C., C. Gerbig, and **J.C. Lin**, *Determination of CO₂ Sources and Sinks on the Continental and Regional Scales*, 12th WMO/IAEA Meeting of Experts on CO₂ and related tracer techniques, Toronto, Sept. 2003, WMO/GAW publication No.161, 71-78, 2003.
1. Contributing Author to *The North American Carbon Program*, U.S. Global Change Research Program, 2001.

Conference Proceedings

33. Kim, S., L. Hu, M. Mohr, **J.C. Lin**, D. Wen, and D. Millet (2011). Constraints on sources of CO and H₂ from tall tower measurements in the Upper Midwest, USA, Abstract A41B-0063 presented at 2011 Fall Meeting, AGU, San Francisco, Calif., 5-9 Dec.
32. Luus, K.A., R.E.J. Kelly, **J.C. Lin**, E.R. Humphreys, and P. Lafleur (2011). Influence of snow cover area on net ecosystem exchange during snowmelt at Daring Lake, NWT, Extended Abstract, 68th Eastern Snow Conference, McGill University, Montreal, Quebec.
31. Guerrero, O.J., R. Jiménez, **J.C. Lin**, G.S. Diskin, G.W. Sachse, E.A. Kort, and J.O. Kaplan (2011). Assessing methane fluxes over Colombia and Panama using Lagrangian simulation and aircraft-borne measurements during TC4, Abstract submitted to European Geophysical Union Annual Meeting.
30. Kim, M.G. and **J.C. Lin** (2010). Uncertainties in model derived mixed-layer heights over North America, Abstract A53E-0292 presented at 2010 Fall Meeting, AGU, San Francisco, Calif., 13-17 Dec.
29. Luus, K.A., R.E. Kelly, **J.C. Lin**, E.R. Humphreys, and P. Lafleur (2010). Estimating impacts of snow cover on net ecosystem exchange near Daring Lake, NWT, Canada (65°N, 111°W), Abstract B41I-0428 presented at 2010 Fall Meeting, AGU, San Francisco, Calif., 13-17 Dec.
28. Zhang, X., X. Lee, T.J. Griffis, D.B. Millet, J.M. Baker, M.D. Erikson, and **J.C. Lin** (2010). Evaluating land surface flux of methane and nitrous oxide in an agricultural landscape with tall tower measurements and a trajectory model, Extended Abstract of the American Meteorological Society.
27. K.A. Luus, C.R. Duguay, R.E.J. Kelly, **J.C. Lin** and Y. Gel (2010). AMSR-E snow water equivalent associated with AMSR-E growing season soil moisture, vegetation opacity and air temperature over six arctic study sites (2003-2008). Proceedings of the 67th Eastern Snow Conference.
26. **Lin, J.C.**, M. Pejam, E. Chan, S.C. Wofsy, E. Gottlieb, H.A. Margolis, and J.H. McCaughey (2009). How Can Uncertainties in Simulating Biospheric Carbon Fluxes Be Attributed to Different Factors? An Illustration using the

- Vegetation Photosynthesis and Respiration Model (VPRM) in Central Canada, *EOS Trans. AGU*, 88(52), Fall Meet. Suppl., Abstract B41D-01.
25. Erickson, T., A.M. Michalak, and **J.C. Lin** (2009). A data system for visualizing 4-D atmospheric CO₂ models and data, Paper #12, Free and Open Source Software for Geospatial (FOSS4G) Conference, Sydney, Australia.
 24. Wen, D., **J.C. Lin**, F. Meng, P.K. Gbor, Z. He, J.J. Sloan (2009). Quantitative Assessment of Upstream Source Influences on Total Gaseous Mercury Observations at Three CAMNET Sites, *EOS Trans. AGU*, 90(22), Jt. Assem. Suppl., Abstract A11B-08.
 23. Chan, E.C., **J.C. Lin** (2009). The Value of Agricultural Data in Carbon Cycle Studies: A Case Study from Ontario, *EOS Trans. AGU*, 90(22), Jt. Assem. Suppl., Abstract B13C-10.
 22. **Lin, J.C.** (2008). Variability in GHG Concentrations and Fluxes: Friend or Foe, *EOS Trans. AGU*, 88(52), Fall Meet. Suppl., Abstract A31I-01.
 21. Eluszkiewicz, J., T. Nehrkorn, S.C. Wofsy, D.M. Matross, C. Gerbig, **J.C. Lin**, S.R. Freitas, M. Longo, A. Andrews, W. Peters (2007). Regional Carbon Dioxide Simulations Using Coupled Stochastic Time-Inverted Lagrangian Transport, Weather Forecast and Research, and Vegetation Photosynthesis and Respiration Models, *EOS Trans. AGU*, 88(52), Fall Meet. Suppl., Abstract B52B-02.
 20. Michalak, A.M., K. Mueller, S. Gourdj, A.I. Hirsch, A.E. Andrews, **J.C. Lin**, T. Nehrkorn (2007). Bridging across Spatial and Temporal Scales in North American Carbon Dioxide Flux Estimation through Geostatistical Analysis of Scale-Dependent Relationships Between Carbon Flux and Auxiliary Environmental Data, *EOS Trans. AGU*, 88(52), Fall Meet. Suppl., Abstract B42C-01.
 19. **Lin, J.C.**, C. Gerbig, S.C. Wofsy, D.M. Matross, and P. Mahadevan (2006). Inferring regional carbon sources and sinks by merging ground-based and atmospheric observations, *CMOS Congress (Toronto)*, Abstract ID#758.
 18. Mahadevan, P., S.C. Wofsy, D.M. Matross, X. Xiao, A.L. Dunn, **J.C. Lin**, C. Gerbig, J.W. Munger, V.Y. Chow, and E. Gottlieb (2006). Modelling net ecosystem exchange of North American ecosystems using satellite images and climate data: Vegetation Photosynthesis and Respiration Model (VPRM), *CMOS Congress (Toronto)*, Abstract ID#1171.
 17. J. Eluszkiewicz, T. Nehrkorn, **J.C. Lin**, C. Gerbig, S. Freitas, M. Longo, S.C. Wofsy, D.M. Matross, and P. Mahadevan (2006), Using the Weather Research and Forecast (WRF) model for estimating North American carbon fluxes, *CMOS Congress (Toronto)*, Abstract ID#963.
 16. Andrews, A.E., P.P. Tans, W. Peters, A. Hirsch, C. Sweeney, G. Petron, J. Kofler, C. Zhao, K. Masarie, S.C. Wofsy, D.M. Matross, P. Mahadevan, M. Longo, C. Gerbig, **J.C. Lin** (2006). Recent Results From the NOAA/ESRL GMD Tall Tower Network, *EOS Trans. AGU*, 87(52), Fall Meet. Suppl., Abstract B41G-06.
 15. Michalak, A.M., A.I. Hirsch, **J.C. Lin**, and A. Andrews (2006). Constraining North American Fluxes of Carbon Dioxide and Inferring their Spatiotemporal Covariances through Assimilation of Remote Sensing and Atmospheric Data in a Geostatistical Framework, *EOS Trans. AGU*, 87(52), Fall Meet. Suppl., Abstract B43B-0275.
 14. Mahadevan, P., D.M. Matross, S.C. Wofsy, X. Xiao, **J.C. Lin**, C. Gerbig, V.Y. Chow, E. Gottlieb, and J.W. Munger (2005). Modeling Large-Scale Biosphere NEE by Integrating Satellite Images and Climate Data - Vegetation Photosynthesis and Respiration Model (VPRM), *EOS Trans. AGU*, 86(52), Fall Meet. Suppl., Abstract A41C-0055.
 13. Matross, D.M., M. Pathmathevan, C. Gerbig, **J.C. Lin**, A. Andrews, J.T. Lee, C. Zhao, P. Bakwin, J.W. Munger, D. Hollinger, and S.C. Wofsy (2005). Atmosphere-Biosphere Carbon Exchange in New England and Quebec During Summer 2004 From a Receptor Oriented Modeling Framework, *EOS Trans. AGU*, 86(52), Fall Meet. Suppl., Abstract B53A-08.
 12. Goeckede, M., J.M. Styles, B.E. Law, **J.C. Lin**, and G. Whitley (2005). Use of Footprint Modeling in a Regional Carbon Budget Approach to Estimate Gross Carbon Fluxes for Oregon-California: Component of ORCA and NACP-W, *EOS Trans. AGU*, 86(52), Fall Meet. Suppl., Abstract B43F-06.
 11. Hirsch, A.I., A.M. Michalak, S. Gourdj, W. Peters, K. Schaefer, A.E. Andrews, **J.C. Lin** (2005). Regional Scale Inverse Modeling of North American Carbon Fluxes, *EOS Trans. AGU*, 86(52), Fall Meet. Suppl., Abstract B54B-08.

10. Hurst, D.F., P.A. Romashkin, B.D. Hall, J.W. Elkins, **J.C. Lin**, C. Gerbig, B.C. Daube, and S.C. Wofsy (2004). Are Emissions of Restricted Halocarbons in the USA and Canada Still Globally Significant?, *EOS Trans. AGU*, 85(47), Fall Meet. Suppl., Abstract A31E-02.
9. Andrews, A.E., W. Peters, K. Schaefer, L. Bruhwiler, P. Bakwin, C. Zhao, J. Kofler, P. Tans, **J.C. Lin**, C. Gerbig, S.C. Wofsy, I. Baker, N. Suits, M. Uliasz, and S. Denning (2004). Coupling Bottom-Up and Top-Down Approaches to Understanding the Carbon Cycle: An Analysis of Data from the NOAA/CMDL WLEF-TV Tall Tower Monitoring Site in Northern Wisconsin, *EOS Trans. AGU*, 85(47), Fall Meet. Suppl., Abstract B22A-04.
8. **Lin, J.C.**, C. Gerbig, S.C. Wofsy, L. Jin, and M.L. Fischer (2003). A Quantitative Method to Incorporate Atmospheric Transport Errors in Inverse Modeling Studies, *EOS Trans. AGU*, 84(46), Fall Meet. Suppl., Abstract A51H-07.
7. Graven, H.D., B.B. Stephens, J.B. Miller, R.F. Keeling, C. Gerbig, **J.C. Lin**, and S.C. Wofsy (2003). Airborne Flask Measurements of O₂/N₂, Ar/N₂, CO₂ and Other Species During COBRA-NA 2003, *EOS Trans. AGU*, 84(46), Fall Meet. Suppl., Abstract B42B-03.
6. Jin, L., M.L. Fischer, **J.C. Lin**, C. Gerbig, and S.C. Wofsy (2003). Towards Constraining Regional Carbon Exchange In The Southern Great Plains With DOE ARM and COBRA Data And Tools, *EOS Trans. AGU*, 84(46), Fall Meet. Suppl., Abstract B51E-1004.
5. Hurst, D., P. Romashkin, B. Daube, J. Elkins, C. Gerbig, **J.C. Lin**, D. Matross, S.C. Wofsy (2003). Airborne Measurements of Halocarbons During the 2003 COBRA - North America Study, *EOS Trans. AGU*, 84(46), Fall Meet. Suppl., Abstract A31D-0074.
4. **Lin, J.C.**, C. Gerbig, and S.C. Wofsy (2002). The Value of Intensive Aircraft Sampling: Lessons From the CO₂ Budget and Rectification Airborne (COBRA) Study, *EOS Trans. AGU*, 83(47), Fall Meet. Suppl., Abstract A11E-04.
3. Gerbig, C., **J.C. Lin**, B.C. Daube, and S.C. Wofsy (2002). Receptor-oriented tracer modeling: applying assimilated meteorological products in a quantitative framework to derive surface fluxes from atmospheric measurements of CO₂, *EOS Trans. AGU*, 83(47), Fall Meet. Suppl., Abstract A71G-08.
2. Miller, J.B., B.B. Stephens, P. Bakwin, P.P. Tans, C. Gerbig, **J.C. Lin**, S.C. Wofsy, A. Andrews, and B.C. Daube (2002). Continental-Scale Trace Gas Measurements During COBRA and the Case for Airborne Flask Measurements in the NACP, *EOS Trans. AGU*, 83(47), Fall Meet. Suppl., Abstract A11E-05.
1. **Lin, J.C.**, C. Gerbig, and S.C. Wofsy (2001). Atmospheric constraints on terrestrial exchanges at the regional to continental scales, *EOS Trans. AGU*, 82(47), Fall Meet. Suppl., Abstract B51C-07.

Invited Talks

22. *National Taiwan University, Dept. of Atmospheric Sciences Seminar* (Dec. 2011): “Interpreting regional scale signals of global change from atmospheric concentrations”.
21. *University of Toronto, Dept. of Atmospheric Physics Noble Seminar* (Apr. 2011): “Interpreting regional scale signals of global change from atmospheric concentrations”.
20. *University of Utah, Global Change and Ecosystem Center Seminar* (Mar. 2011): “Interpreting regional scale signals of global change from atmospheric concentrations”.
19. *National Institute for Environmental Studies (Tsukuba, Japan)* (Aug. 2010): “Overview of the Stochastic Time-Inverted Lagrangian Transport (STILT) model”.
18. *Canadian Forest Service/Pacific Forestry Centre* (May 2010): “Regional scale terrestrial carbon fluxes: an atmospheric perspective”, Victoria, BC.
17. *Environment Canada, Climate Research Division* (May 2010): “Atmospheric constraints on regional scale tracer fluxes”.
16. *Canadian Space Agency Workshop on Suborbital Platforms and Nanosatellites* (Apr. 2010): “How can aircraft measurements tell us about the source/sink distribution of greenhouse gases?”, Saint-Hubert, QC.
15. *Canadian Space Agency Earth System Science Workshop* (Dec. 2009): “Atmospheric measurements and modeling for carbon cycle science”, Saint-Hubert, QC.
14. *U.S. National Oceanographic and Atmospheric Administration Air Resources Laboratory* (Nov. 2009): “Overview of the Stochastic Time-Inverted Lagrangian Transport (STILT) model”, Silver Springs, MD.
13. *U.S. National Oceanographic and Atmospheric Administration Earth System Research Laboratory Annual Meeting* (May 2009): “Interpreting variability of atmospheric mercury concentrations in Canada”, Boulder, Colorado.
12. *Environment Canada, Climate Research Division* (Apr. 2009): “Relating highly-varying tracer concentrations over the continent to regional to sources/sinks”.
11. *Canadian Carbon Program Annual Meeting* (Feb. 2009): “Model-data fusion and regional constraints on carbon fluxes from tower-based CO₂ concentrations”, Vancouver, BC.
10. *Univ. of Waterloo, Dept. of Applied Mathematics seminar* (Nov. 2008): “Mucking around in the toilet: adventures (real + simulated) in the atmospheric boundary layer”.
9. *Dalhousie Univ., Dept. of Physics seminar* (Nov. 2008): “Mucking around in the toilet: adventures (real + simulated) in the atmospheric boundary layer”.
8. *National Taiwan Univ., Dept. of Atmospheric Sciences seminar* (Jan. 2007): “Using atmospheric concentrations of trace gases to understand continental sources/sinks”.
7. *Academia Sinica (Taipei, Taiwan)* (Jan. 2007): “Using atmospheric concentrations of trace gases to understand continental sources/sinks”.
6. *Fluxnet-Canada Annual Meeting* (Feb. 2006): “Using high-precision CO₂ and CO observations to constrain large-scale carbon budgets”, Victoria, B.C.
5. *Univ. of Toronto, Dept. of Physics seminar* (Jan. 2006): “Relating highly-varying tracer concentrations over the continent to regional to sources/sinks”.
4. *Univ. of California, Berkeley Environmental Science, Policy & Management seminar* (Oct. 2005): "How do we learn about terrestrial sources and sinks of carbon?"
3. *McGill Univ., Dept. of Atmospheric and Oceanic Sciences seminar* (Mar. 2005): "How do we learn about terrestrial sources and sinks of carbon?"
2. *U.S. National Oceanographic and Atmospheric Administration Climate Monitoring and Diagnostics Laboratory seminar* (Jan. 2005): “Towards linking tracer concentrations with sources/sinks at high spatio-temporal resolution: the Stochastic Time-Inverted Lagrangian Transport (STILT) approach”.
1. *Frontier Research Center for Global Change (Yokohama, Japan)* (Nov. 2004): “Constraining terrestrial sources and sinks of carbon at the regional scale”.

Workshop/Meeting Experience

AGU Chapman Conference (lead convener), Oct. 2011. Grindelwald, Switzerland
American Geophysical Union Meetings, 2000~2003, 2009. Boston, MA; San Francisco, CA
Canadian Meteorological & Oceanographic Society Annual Meeting (session convener), 2006. Toronto, ON
Canadian Carbon Program Annual Meeting, 2009, 2010. Vancouver, BC; Montreal, QC
Fluxnet-Canada Annual Meeting, 2006. Victoria, BC
7th International Carbon Dioxide Conference, 2005. Boulder, CO
Modeling & Data Analysis of Atmospheric CO₂, 2004. National Oceanic & Atmospheric Administration
Data Assimilation for Atmospheric & Climate System Prediction, 2003. National Center for Atmospheric Research
Carbon Data-Model Assimilation (C-DAS) Summer Institute, 2002. National Center for Atmospheric Research
North American Carbon Program, 2001. National Center for Atmospheric Research
Carbon Modeling Consortium Meeting, 2001. Princeton University
Ameriflux Conference, 1999. Denver, CO
Stable Isotope Ecology Course, 1998. University of Utah

Professional Associations

- Canadian Meteorological and Oceanographic Society
- American Geophysical Union
- American Association for the Advancement of Science
- American Meteorological Society

Peer Review Activities

Editorial Board Member for *Scientific Reports* (Nature Publishing Group).

Reviewer for *Tellus B*, *Journal of Geophysical Research*, *Atmospheric Chemistry and Physics*, *Journal of Applied Meteorology*, *Agricultural & Forest Meteorology*, *National Institute for Global Environmental Change*, *NASA*.

Languages

Native-level proficiency in English, Mandarin Chinese, Japanese, and Taiwanese

Personal Interests

Zen meditation, RedSox baseball, hiking, skiing