

SCOTT D. MILLER

Research Associate
Atmospheric Sciences Research Center
State University of New York at Albany
251 Fuller Road L317
Albany, NY 12203
(518) 437-8799
smiller@albany.edu
<http://asrc.albany.edu/people/faculty/miller>

PROFESSIONAL PREPARATION

State University of New York at Buffalo, Mechanical Engineering, B.S., 1991
University of California at Irvine, Engineering, M.S., 1994
University of California at Irvine, Engineering, Ph.D., 1998.
University of California at Irvine, Earth System Science, Postdoc, 1998-2005

APPOINTMENTS

2005-Present	Research Associate, Atmospheric Sciences Research Center, Albany NY
2003- 2005	Assistant Researcher, Earth System Science, UC Irvine
1998-2003	Post-Doctoral Researcher, Earth System Science, UC Irvine
1998-2000	Post-Doctoral Researcher, Mechanical Engineering, UC Irvine
1993-1998	Research Assistant, Mechanical and Aerospace Engineering, UC Irvine
1993	Graduate Teaching Assistant, UC Irvine

PUBLICATIONS

29. Restrepo-Coupe, N., et al.,. What controls the seasonality of photosynthesis across the Amazon basin? A cross-site analysis of eddy flux tower measurements from the Brasil flux network, submitted to Global Change Biology.
28. Fisher, J.B., Y. Malhi, A.C. de Araújo, D. Bonal, M. Gamo, M.L. Goulden, T. Hirano, A.R. Huete, H. Kondo, T. Kumagai, H.W. Loescher, S.D. Miller, et al. The land-atmosphere water flux in the tropics, accepted Global Change Biology.
27. Miller, S.D., C.A. Marandino C.A., and E.S. Saltzman: Ship-based Measurement of Air-Sea CO₂ Exchange by Eddy Covariance, in review *JGR-Atmos*.
26. Miller, S.D., C.A. Marandino C.A., W.J.De Bruyn, and E.S. Saltzman: Air-Sea Gas Exchange of CO₂ and DMS in the North Atlantic by Eddy Covariance, in press *Geophys. Res. Lett.*, doi:10.1029/2009GL038907.
25. da Rocha, H.R., A.O. Manzi, O.M. Cabral, S.D. Miller, et. al. (2009). Patterns of water and heat flux across a biome gradient from tropical forest to savanna in Brazil. *J. Geophys. Res.*, 114, D20, 10.1029/2007JG000640.
24. Juárez, R.I.N., H. R. da Rocha, A.M.S. Figueira, M.L. Goulden, and S.D. Miller (2009). An improved estimate of leaf area index based on the histogram analysis of hemispherical photographs. *Agr. Forest Meteorol.* 149, 6-7: 920-928.
23. Marandino C.A., W.J.De Bruyn, S.D. Miller, and E.S. Saltzman (2008). DMS air/sea flux and gas transfer coefficients from the North Atlantic summertime coccolithophore bloom. *Geophys. Res. Lett.* 35, L23812, doi:10.1029/2008GL036370.
22. Marandino C.A., W.J.De Bruyn, S.D. Miller, and E.S. Saltzman (2008). Open ocean DMS

- air/sea fluxes over the eastern South Pacific Ocean. *Atmos. Chem. Phys. Dis.* 8, 3: 12081-12114
21. Figueira, A. M. e S., S. D. Miller, C. A. D de Sousa, M. C. Menton, A. R. Maia, H. R. da Rocha, and M. L. Goulden (2008), Effects of selective logging on tropical forest tree growth, *J. Geophys. Res.*, 113, G00B05, doi:10.1029/2007JG000577.
 20. Baker, I. T., L. Prihodko, A. S. Denning, M. Goulden, S. Miller, and H. R. da Rocha (2008), Seasonal drought stress in the Amazon: Reconciling models and observations, *J. Geophys. Res.*, 113, G00B01, doi:10.1029/2007JG000644.
 19. Miller, S.D., T.S. Hristov, J.B. Edson, and C.A. Friehe, 2008: Platform Motion Effects on Measurements of Turbulence and Air-Sea Exchange Over the Open Ocean, *J. Atmos. Ocean. Tech.* **25**(9), 1683–1694.
 18. Marandino C.A., W.J. De Bruyn, S.D. Miller, and E.S. Saltzman, 2007: Eddy correlation measurements of the air/sea flux of Dimethylsulfide Over the North Pacific Ocean. *J. Geophys. Res.-Atmos.* **112**.
 17. Miller, S.D., M.L. Goulden, H.R. da Rocha, 2007: The Effect of canopy gaps on subcanopy ventilation and scalar fluxes in a tropical forest, *Agr. Forest Meteorol.* **142**:25-34.
 16. Goulden, M. L., M. Litvak, and S.D. Miller, (2007): Factors that control Typha marsh evapotranspiration, *Aquatic Botany*, 86(2), 97-106
 15. Bruno, R.D., H.R. da Rocha, H. Freitas, M. Goulden, and S.D. Miller, 2006: Soil moisture dynamics in an eastern Amazonian tropical forest. *Hydrol. Process.* **20**:2477-2489.
 14. Doughty, C.E., M.L. Goulden, S.D. Miller, H.R. da Rocha, 2006: Circadian rhythms constrain leaf and canopy gas exchange in an Amazonian forest, *Geophys. Res. Lett.* **33**.
 13. Goulden, M.L., S.D. Miller, and H.R. da Rocha, 2006: Nocturnal cold air drainage and pooling in a tropical forest, *J. Geophys. Res.-Atmos.* **111**, D08S04.
 12. Marandino, C.A., W.J. De Bruyn, S.D. Miller, M.J. Prather, and E.S. Saltzman, 2005: Oceanic uptake and the global atmospheric acetone budget. *Geophys. Res. Lett.* **32**, L15806.
 11. Miller, S.D., M.L. Goulden, et al., 2004: Biometric and micrometeorological measurements of tropical forest carbon balance. *Ecol. Appl.* **14**(4):S114 –S126.
 10. Goulden, M.L., S.D. Miller, M.C. Menton, H.R. da Rocha, and H.C. Freitas, 2004: Diel and seasonal patterns of tropical forest CO₂ exchange. *Ecol. Appl.* **14**(4):S42 –S54.
 9. Rocha, H.R., M.L. Goulden, S.D. Miller, et al., 2004: Seasonality of water and heat fluxes over a tropical forest in eastern Amazonia. *Ecol. Appl.* 14(4): S22 –S32.
 8. Keller, M., A. Alencar, G.P. Asner et al., 2004: Ecological research in the Large-scale Biosphere-Atmosphere experiment in Amazonia: early results. *Ecol. Appl.*, **14**(4):S3-16.
 7. Saleska, S.R., Miller, S.D., Matross, D.M., Goulden, M.L., Wofsy, S., Rocha, H.R., Camargo, P.B., Crill, P., Daube, B.C., Freitas, H.C., Hutyyra, L., Keller, M., Kirchhoff, V., Menton, M., Munger, J.W., Hammond Pyle, E., Rice, A.H., and Silva, H., 2003: Carbon in Amazon Forests: Unexpected Seasonal Fluxes and Disturbance-Induced Losses. *Science* **302**:1554-1557.
 6. Hristov, T.S., S.D. Miller, C.A. Friehe, 2003: Wind and ocean surface waves: dynamics of coupling. *Nature*, March 7, 2003.
 5. Litvak, M., S. Miller, S. Wofsy, and M. Goulden, 2002: Effect of stand age on whole ecosystem CO₂ exchange in Canadian boreal forest. *J. Geophys. Res.-Atmos.* **108** (D3): 8225.

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4. Grachev, A.A., C.W. Fairall, J.E. Hare, J.B. Edson, and S.D. Miller, 2002: Direction of wind stress vector over waves. *J. Phys. Oceanogr.* **33**(11):2408–2429.
3. Hristov, TS, S.D. Miller, and C.A. Friehe, 2000: Linear time-invariant compensation of cup anemometer and vane inertia. *Bound-Lay Meteorol.* **97**(N2):293-307.
2. Hristov, T., C. Friehe, and S. Miller, 1998: Wave-coherent fields in air flow over ocean waves: Identification of cooperative behavior buried in turbulence. *Phys. Rev. Lett.* **81**(23):5245-5248.
1. Miller, S.D., C.A. Friehe, T.S. Hristov, and J.B. Edson, 1997: Wind and turbulence profiles in the surface layer over ocean waves. Wind-Over-Wave Couplings, Salford University.

SYNERGISTIC ACTIVITIES

Editorial Board Member: Agricultural and Forest Meteorology (2008-present).

Journal Reviewer: *J. Hydrometeorol.*, *Global Biogeochem. Cy.*, *J. Atmos. Ocean. Tech.*, *Global Change Biol.*, *Agr. Forest Meteorol.*, *BiotaNeotropica*, *Oecologia*, *JGR*.

Proposal/Panel Reviews: NSF, NASA, WESTGEC, NICCR

COLLABORATORS

I. Baker (Colorado), Rogerio Bruno (U. Sao Paulo), Warren DeBruyn (Chapman College), C. Doughty (UC Irvine), Michela Figueira (U. Sao Paulo), Michael Goulden (UC Irvine), Jim Edson (U Connecticut), Helber Freitas (U. of Sao Paulo, Brazil), Carl Friehe (UC Irvine), Tihomir Hristov (Johns Hopkins), Lucy Hutyra (Harvard), R. Juarez (Tulane U), Augusto Maia (UF Para, Brazil), Christa Marandino (UC Irvine), Mary Menton (Oxford U), M. Prather (UC Irvine), Humberto da Rocha (U. of Sao Paulo, Brazil), Scott Saleska, (Harvard), Eric Saltzman (UC Irvine), Albert Sousa (IBAMA, Brazil)

GRADUATE AND POSTDOCTORAL ADVISORS

Carl Friehe, Department of Mechanical Engineering, UC Irvine (Ph.D. Advisor)

Michael Goulden, Department of Earth System Science, UC Irvine (Postdoctoral Advisor)

POSTDOCTORAL RESEARCHERS

Matt Czikowsky

GRADUATE STUDENTS

Michela Figueira (visiting student, CENA, Piracicaba, Sao Paulo, Brazil, 2006-2007)

Marta Llopart (visiting student, University of Sao Paulo, Brazil, June-Nov, 2008)

UNDERGRADUATE STUDENTS

Mark Ellinwod (summer student, SUNY Albany, 2009)