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EDUCATION

PH.D. (09/04-12/09) Atmospheric and Oceanic Sciences, University of Wisconsin-Madison, USA
Thesis: Potential Vorticity Inversion Diagnosis of the Development of Polar Lows.
Advisor: Prof. Grant W. Petty and Prof. Jonathan E. Martin

M.S. (09/01-06/04) Atmospheric Sciences, Peking University, China
Thesis: Retrieval of Sea Ice Using Satellite Instruments and its Application in Numerical Modeling and Forecast of Sea Ice.
Advisor: Prof. Wanbiao Li and Prof. Huiding Wu

B.S. (09/97-07/01) Atmospheric Sciences, Peking University, China
Thesis: A Simulation Study of Land Surface Albedo from Satellite Observation.
Advisor: Prof. Wanbiao Li

RESEARCH INTERESTS

- Mesoscale modeling
- Aerosol impact on water vapor, cloud, precipitation and climate
- Tropical cyclone and polar low
- Water vapor, cloud and precipitation processes
- Satellite data analysis

PROFESSIONAL EXPERIENCES

- Assistant Researcher, Joint Institute for Regional Earth System Science and Engineering, UCLA, CA (2012- present)
- Postdoctoral Scholar, Jet Propulsion Laboratory, California Institute of Technology, Pasadena, CA (2010-2011)
- Research Assistant, Department of Atmospheric and Oceanic Sciences, University of Wisconsin -Madison, Madison, WI (2004-2009)
- Research Assistant, Department of Atmospheric Sciences, Peking University, Beijing, China (2001-2004)

ACADEMIC PUBLICATIONS

1. **Wu, L.**, H. Su and J. H. Jiang, 2012: Regional simulations of aerosol impacts on summer monsoon precipitation over China. To be submitted to *J. Geophys. Res.*.
2. **Wu, L.**, H. Su, R.G. Fovell, B. Wang, J.T. Shen, B.H. Kahn, S.M. Hristova-Veleva, B.H.

Lambrigtsen, E.J. Fetzer and J.H. Jiang, 2012: Relationship of environmental relative humidity with North Atlantic tropical cyclone intensity and intensification rate. *Geophys. Res. Lett.*, doi:10.1029/2012GL053546, in press.

3. **Wu, L.**, Su, H., Jiang, J. H., and Read, W. G., 2012: Hydration or dehydration: competing effects of upper tropospheric cloud radiation on the TTL water vapor, *Atmos. Chem. Phys.*, 12, 7727-7735, doi:10.5194/acp-12-7727-2012, 2012.
4. Hu, X.-M., F. Zhang, G. Yu, J. D. Fuentes, and **L. Wu**, 2011: Contribution of mixed-phase boundary layer clouds to the termination of ozone depletion events in the Arctic. *Geophys. Res. Lett.*, 38, L21801, doi:10.1029/2011GL049229.
5. **Wu, L.**, H. Su and J. H. Jiang, 2011: Regional simulations of deep convection and biomass burning over South America. 1. Model evaluations using multiple satellite datasets. *J. Geophys. Res.*, 116, D17208, doi:10.1029/2011JD016105.
6. **Wu, L.**, H. Su and J. H. Jiang, 2011: Regional simulations of deep convection and biomass burning over South America. 2. Biomass burning aerosol effects on clouds and precipitation. *J. Geophys. Res.*, 116, D17209, doi:10.1029/2011JD016106.
7. **Wu, L.**, Martin, J. E. and Petty, G. W., 2011: Piecewise potential vorticity diagnosis of the development of a polar low over the Sea of Japan. *Tellus A*, 63:198-211. doi: 10.1111/j.1600-0870.2011.00511.x
8. **Wu, L.** and G. W. Petty, 2010: Intercomparison of Bulk Microphysics Schemes in Simulations of Polar lows. *Mon. Wea. Rev*., 138, 2211-2228. doi: 10.1175/2010MWR3122.1.
9. **Wu L.**, H. Wu, L. Sun etc., 2006: Retrieval of Sea Ice in the Bohai Sea from MODIS Data, *Periodical of Ocean University of China*, Vol. 36, No. 2, 173~179.
10. **Wu L.**, H. Wu, W. Li, etc., 2005: Sea Ice Drifts in Response to Winds in the Bohai Sea, *Acta Oceanologica Sinica*, No. 5, 15~21.
11. Li W., **L. Wu**, C. Zhang, J.-Y. Yu, 2003: Retrieval of Atmospheric Vertical Temperature Profile above Sea Level with Satellite Remote Sensing, *Acta Scientiarum Naturalium Universitatis Pekinensis*, Vol.39, No.5, 656~665.

FUNDED PROJECTS

- NASA Research Opportunities in Space and Earth Sciences NNH11ZDA001N-HSRP: Hurricane Science Research Program: "Influence of environmental moisture on hurricane genesis and intensification: Observation & idealized modeling". PI: Robert Fovell (UCLA). Co-I: Hui Su (JPL), Longtao Wu (UCLA). $352,705, NNX12AJ83G, NASA, 2012.7-2015.7.

PROFESSIONAL SERVICES

- Reviewer for scientific journals: Geophysical Research Letters, Journal of Geophysical Research, Advances in Atmospheric Sciences, Atmospheric Pollution Research.
- Reviewer for proposal: JPL R&TD

CONFERENCE PRESENTATIONS

1. **Wu, L.**, H. Su and J. H. Jiang, 2012: WRF-Chem simulations of aerosol impacts on summer monsoon precipitation over China. EOS Aura Science Team Meeting, Oct. 1-3, Pasadena, California, USA.
2. Su, H., **L. Wu**, R.G. Fovell, B. Wang, J.T. Shen, B.H. Kahn, S.M. Hristova-Veleva, B.H. Lambrigtsen, and E.J. Fetzer, 2012: Relationship of environmental relative humidity with North Atlantic tropical cyclone intensity and intensification rate. 30th Conference on Hurricanes and Tropical Meteorology, Apr 15-20, Ponte Vedra Beach, Florida, USA
3. **Wu, L.**, H. Su, J. H. Jiang and W. G. Read 2012: Radiative Impacts of Upper Tropospheric Clouds on Water Vapor in the Tropical Tropopause Layer. 92st American Meteorological Society (AMS) Annual Meeting, January 22-26, New Orleans, Louisiana, USA
4. **Wu, L.**, H. Su, J. H. Jiang and W. G. Read 2011: Radiative Impacts of Upper Tropospheric Clouds on Water Vapor in the Tropical Tropopause Layer. 2011 American Geophysical Union (AGU) Fall meeting, December 5-9, San Francisco, California, USA
5. **Wu, L.**, H. Su and J. H. Jiang, 2011: Biomass burning aerosol effects on clouds and precipitation: a numerical study in the dry season of South America. AAAR 30th Annual Conference, Oct. 3-7, Orlando, Florida, USA.
6. **Wu, L.**, H. Su and J. H. Jiang, 2011: Hydration or dehydration: competing effects of cloud radiation on the TTL water vapor. EOS Aura Science Team Meeting, Sep. 13-15, Helsinki, Finland.
7. **Wu, L.**, H. Su and J. H. Jiang, 2011: Biomass burning aerosol effects on clouds and precipitation-WRF-Chem simulations. SGIUG conference 11, May 2-5, Fremont, California, USA.
8. **Wu, L.**, H. Su and J. H. Jiang, 2011: Biomass burning aerosol effects on the diurnal cycle of convection: a numerical study in the dry season of South America. 91st American Meteorological Society (AMS) Annual Meeting, January 23-27, Seattle, Washington, USA
9. **Wu, L.**, H. Su and J. H. Jiang, 2010: Biomass burning aerosol effects on clouds and precipitation: a numerical study in the dry season of South America. 2010 American Geophysical Union (AGU) Fall meeting, December 13-17, San Francisco, California, USA
10. **Wu, L.**, H. Su and J. H. Jiang, 2010: Evaluation of aerosol, clouds, precipitation and chemistry simulations in the WRF-Chem using multi-satellite observations. EOS Aura Science Team Meeting, September 27-29, Boulder, Colorado, USA.
11. **Wu, L.**, H. Su and J. H. Jiang, 2010: Biomass burning effects on clouds and precipitation in the WRF-Chem simulations. 11th WRF User's Workshop, June 21 - 25, Boulder, Colorado, USA.
12. **Wu, L.** and G. W. Petty, 2009: Intercomparison of Bulk Microphysics Schemes in Simulations of Polar lows. 10th Conference on Polar Meteorology and Oceanography, May 18 - 21, Madison, Wisconsin, USA.
13. Petty, G. W. and **L. Wu**, 2007: Satellite passive microwave retrieval and validation of snowfall over high-latitude oceans. CMOS-CGU-AMS Joint Congress, May 28 - June 1, St. John's, Newfoundland, Canada.
14. Petty, G. W. and **L. Wu**, 2007: Validation of high latitude ocean precipitation retrievals from AMSR-E. IEEE International Geoscience and Remote Sensing Symposium (IGARSS), July 23-27, Barcelona, Spain.

15. Petty, G. W. and **L. Wu**, 2007: Validation of high latitude ocean precipitation retrievals for AMSR-E and GPM. 15th American Meteorological Society (AMS) Satellite Meteorology and Oceanography, September 24-28, Amsterdam, Netherlands.