

Curriculum Vitae

Zheng Lu

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Education

Ph. D. in Atmospheric Science *Aug. 2007 – June. 2014*
School of Earth and Atmospheric Sciences, Georgia Institute of Technology

Bachelor in Atmospheric Sciences *June 2003 – June 2007*
Department of Atmospheric Sciences, Nanjing University, China

Publications:

Journal articles:

Lu, Z., and I. N. Sokolik, The effect of smoke emission amount on changes in cloud properties and precipitation: A case study of Canadian boreal wildfires of 2007, *J. Geophys. Res. Atmos.*, *118*, doi:10.1002/2013JD019860, 2013.

Lu Z., I.N. Sokolik, and S. Amber, Examining the impact of smoke on clouds and precipitation under different fire regimes: A case study of Yakutsk wildfires of 2002 [in preparation for JGR].

Lu Z., and I.N. Sokolik, Integration of geostationary WF_ABBA product and polar-orbiter burned area and FRP datasets for a improved biomass burning inventory [in preparation]

Conference proceedings:

Lu Z., and I.N. Sokolik, Examining the cloud buffering under smoke-laden conditions: A case study of the 2002 Yakutsk wildfire season, NUCLEATION AND ATMOSPHERIC AEROSOLS: 19th International Conference, *AIP Conf. Proc.* *1527*, pp. 743-746; doi:<http://dx.doi.org/10.1063/1.4803377> (4 pages), 2013.

Conference presentations:

Lu Z., and I.N. Sokolik, V.V. Tatarskii, J.A. Curry, and H. Morrison, Impact of model physics on estimating changes in cloud and precipitation in the Arctic. EOS Trans. AGU, Fall Meeting, Suppl. 2008.

Lu, Z., and I.N. Sokolik, Impact of wildfire smoke on clouds and precipitation in high latitudes, EOS Trans. AGU, Fall Meet. Suppl., 2009.

Lu, Z., and I.N. Sokolik, Examining the Impact of Biomass burning Aerosol on Clouds and Precipitation in high Latitudes using the Weather Research and Forecasting (WRF) Model and Remote Sensing data, 90th AMS Annual Meeting, 2010.

Lu Z., and I.N.Sokolik, Examining the impact of wildfire smoke aerosol on clouds, precipitation and energy balance in high latitudes using a regional model WRF-Chem-SMOKE and satellite data. EGU. Annual Meeting, 2010.

Lu Z., and I.N. Sokolik, Examining the Impact of Smoke Aerosol on Clouds and Precipitation using a Regional Model WRF-Chem-SMOKE and A-Train Data: A Case Study of Canadian Boreal Forest Wildfires in Summer 2007.AMS, 13th Conference on Cloud Physics, 2010.

Lu Z., and I.N. Sokolik, Examining the impact of smoke aerosol on clouds and precipitation using a regional model WRF-Chem-SMOKE and A-Train data: A case study of Canadian boreal forest wildfires in summer 2007. 11th annual WRF user workshop, 2010.

Lu, Z., I.N. Sokolik and A. Soja, Examining the impact of smoke on clouds and precipitation during the 2002 Yakutsk wildfire season with the WRF-Chem-SMOKE model and satellite data , EOS Trans. AGU, Fall Meet. Suppl., 2010.

Lu, Z., I.N. Sokolik and A. Soja, Assessments of the Emission and Impact of Smoke from the 2002 Yakutsk Wildfires using the WRF-Chem-SMOKE Model and Satellite Data, EOS Trans. AGU, Fall Meet. Suppl., 2011.

Lu Z., I.N. Sokolik, Analysis of the 2002 Yakutsk Wildfires using the WRF-Chem-SMOKE model and satellite data. 13th annual WRF user workshop 2012.

Lu, Z., I.N. Sokolik, P.W. Stackhouse, and J.C. Mikovitz, Examining direct and indirect radiative forcings of smoke aerosol during the 2002 Yakutsk wildfire season, EOS Trans. AGU, Fall Meet. Suppl., 2012.

Lu Z. and I.N.Sokolik, Examining the cloud buffering under smoke-laden conditions: A case study of the 2002 Yakutsk wildfire season, NUCLEATION AND ATMOSPHERIC AEROSOLS: 19th International Conference, 2013 (Oral).

Honors and Grants:

Outstanding research award

Dec. 2006

Nanjing University

NSF travel grants

Aug. 2013

19th International Conference on Nucleation and Atmospheric Aerosols

Organizations:

American Geosciences Union

since Dec. 2009

Teaching:

Teaching Assistant (*Intro-Environmental Sci.*)

Jan. 2011– May 2011

Teaching Assistant (*Habitable Planets*)

Sept. 2011– Dec. 2013

Skills:

Modeling: WRF-Chem model; CESM/CAM model

Coding: C, Fortran, IDL, Python, Matlab, VisIt, and NCL (A script written by me was added to the NCL library: http://www.ncl.ucar.edu/Applications/pie_chart.shtml)