Curriculum Vitae

Brian Indrek Magi

Princeton University and NOAA GFDL
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Education

Ph. D., University of Washington, Atmospheric Sciences, August 2006.

B. Sc., University of Arizona, Physics and Applied Math, December 1998.

Research Positions

Postdoctoral Fellow (Research Associate), Program in Atmospheric and Oceanic Sciences, Princeton University, January 2007 – present.

Postdoctoral Research Associate, Department of Atmospheric Sciences, University of Washington, October – December 2006.

Research Assistant, Department of Atmospheric Sciences, University of Washington, September 1999 – August 2006.

Teaching Positions

Tutor, Study Smart, Pennsylvania, November – December 2007.

Teaching Assistant, Department of Atmospheric Sciences, University of Washington, March – June 2001.

Teaching Assistant, Institute for Atmospheric Sciences, University of Arizona, January – May 1998.

Refereed Publications

Magi, B.I., A. Konare, et al. (2009), Evaluation of a new biomass burning emissions inventory for Africa, *in preparation*.

Magi, B.I. (2009), Wavelength dependence of speciated aerosol absorption and scattering over southern Africa, *in preparation*.

Magi, B.I. (2009), Chemical apportionment of southern African aerosol mass and optical depth, *in preparation*.

Magi, B.I., P. Ginoux, Y. Ming, and V. Ramaswamy (2009), Evaluation of tropical and extratropical Southern Hemisphere African aerosol properties simulated by a climate model, revision submitted to *J. Geophys. Res.*, doi:10.1029/2008JD011128.

Magi, B.I., Q. Fu, J. Redemann, and B. Schmid (2008), Using aircraft measurements to estimate the magnitude and uncertainty of the shortwave direct radiative forcing of southern African biomass burning aerosol, *J. Geophys. Res.*, *113*, D05213, doi:10.1029/2007JD009258.

Magi, B.I., Q. Fu, and J. Redemann (2007), A methodology to retrieve self-consistent aerosol optical properties using common aircraft measurements, *J. Geophys. Res.*, *112*, D24S12, doi:10.1029/2006JD008312.

Magi, B.I., P.V. Hobbs, T.W. Kirchstetter, T. Novakov, D.A. Hegg, S. Gao, J. Redemann, and B. Schmid (2005), Aerosol Properties and Chemical Apportionment of Aerosol Optical Depth at

Locations off the United States East Coast in July and August 2001, *J. Atmos. Sci.*, *62*(4), 919-933, doi:10.1175/JAS3263.1.

Magi, B.I., P.V. Hobbs, B. Schmid, and J. Redemann (2003), Vertical profiles of light scattering, light absorption, and single scattering albedo during the dry, biomass burning season in southern Africa and comparisons of in situ and remote sensing measurements of aerosol optical depths, *J. Geophys. Res.*, *108*(D13), doi:10.1029/2002JD002361.

Gao, S., D.A. Hegg, P.V. Hobbs, T.W. Kirchstetter, **B.I. Magi**, and M. Sadilek (2003), Water-soluble organic components in aerosols associated with savanna fires in southern Africa: Identification, evolution, and distribution, *J. Geophys. Res.*, *108*(D13), doi:10.1029/2002JD002324.

Kirchstetter, T.W., T. Novakov, P.V. Hobbs, and **B. Magi** (2003), Airborne measurements of carbonaceous aerosols in southern Africa during the dry biomass burning season, *J. Geophys. Res.*, *108*(D13), doi:10.1029/2002JD002171.

Magi, B.I., and P.V. Hobbs (2003), Effects of humidity on aerosols in southern Africa during the biomass burning season, *J. Geophys. Res.*, *108*(D13), doi:10.1029/2002JD002144.

Non-Refereed Publications

Magi, B.I., Emissions, Seminar presentation, GFDL-NCAR Atmospheric GCM Meeting, April 2009.

Magi, B.I., Historical aerosol emissions comparisons, Informal seminar presentation, NOAA Geophysical Fluid Dynamics Laboratory, March 2009.

Magi, B.I., Biomass burning inventories, Informal seminar presentation, NOAA Geophysical Fluid Dynamics Laboratory, February 2009.

Magi, B.I., The reality of simulating biomass burning in southern Africa, Seminar presentation, NOAA Earth System Research Laboratory, February 2009.

Magi, B., M. Coughlan, A. Edwards, M. Hurteau, A. Petty, F. Seijo, and C. Wiedimyer (2008), Meeting Report from AIMES (Analysis, Integration and Modeling of the Earth System) Young Scholar's Network Workshop on Cultural Uses and Impacts of Fire: Past, Present, and Future, *Eos*, *89*(40), doi:10.1029/2008ES002414.

Schmid, B., H. Guan, M. Kuzmanoski, P. Pilewskie, A. Bucholtz, A. McComiskey, S. McFarlane, and **B. Magi**, The Sensitivity of Shortwave Radiative Forcing and Heating Rates to the Aerosol Vertical Profile, International Radiation Symposium, August 2008.

Magi, B.I., M. Tosca, S. Ravi, A. Konare, and V. Jauss, Fires in the Current Climate, AIMES (Analysis, Integration and Modeling of the Earth System) Young Scholar's Network 4th Workshop on Cultural Uses and Impacts of Fire: Past, Present and Future, Oral Presentation, July 2008.

Magi, B.I., P. Ginoux, Y. Ming, and V. Ramaswamy, The reality of simulating the biomass burning aerosol over southern Africa, AIMES (Analysis, Integration and Modeling of the Earth System) Young Scholar's Network 4th Workshop on Cultural Uses and Impacts of Fire: Past, Present and Future, July 2008.

Schmid, B., H. Guan, M. Kuzmanoski, P. Pilewskie, A. Bucholtz, A. McComiskey, S. McFarlane, and **B. Magi**, The Sensitivity of Shortwave Radiative Forcing and Heating Rates to the Aerosol Vertical Profile, DOE ARM Science Team Meeting, April 2008.

Magi, B.I., Evaluation of the GFDL GCM simulation of southern hemisphere African aerosol (which is dominated by biomass burning emissions), Informal seminar presentation, NOAA Geophysical Fluid Dynamics Laboratory, February 2008.

B. Schmid, H. Guan, A. McComiskey, S. McFarlane, M. Kuzmanoski, P. Pilewskie, **B. Magi**, The Sensitivity of Shortwave Radiative Forcing and Heating Rates to the Aerosol Vertical Profile, *EOS Trans. AGU*, *88*(52), Fall Meet. Suppl., Abstract A33F-05, 2007.

Magi, B.I., Measurements and simulations of biomass burning in southern Africa, DISsertation initiative for the advancement of Climate Change ReSearch (DISCCRS) Symposium, Invited oral presentation, September 2007.

Magi, B.I., Biomass burning in southern Africa: Transitioning from measurements to model input, Gordon Research Conference, July 2007.

Schmid, B., H. Guan, A. McComiskey, S. McFarlane, M. Kuzmanoski, **B. Magi**, and C. Flynn, The Sensitivity of Shortwave Radiative Forcing and Heating Rates to the Aerosol Vertical Profile, DOE ARM Science Team Meeting, April 2007.

Magi, B.I., A measurement-based estimate of southern African biomass burning aerosol direct radiative forcing, Seminar presentation, NASA Ames Research Center, October 2006.

Magi, B.I., A measurement-based estimate of southern African biomass burning aerosol direct radiative forcing, Seminar presentation, NASA Jet Propulsion Laboratory, October 2006.

Magi, B.I., A measurement-based estimate of southern African biomass burning aerosol direct radiative forcing, Seminar presentation, NOAA Geophysical Fluid Dynamics Laboratory, October 2006.

Magi, B.I., Southern African Biomass Burning, Seminar presentation, USDA Forest Service, August 2006.

Magi, B.I., Ph. D. Dissertation, Optical Properties and Radiative Forcing of Southern African Biomass Burning Aerosol, University of Washington, Supervisors: Qiang Fu and Peter V. Hobbs, August 2006.

Magi, B.I., Measurement-Based Estimate of Southern African Biomass Burning Aerosol Direct Radiative Forcing, Los Alamos National Laboratory Aerosol Workshop on Climate Prediction Uncertainties, oral presentation, July 2006.

Magi, B.I., The Direct and Indirect Radiative Effects of Atmospheric Aerosols, University of Washington Program on Climate Change Graduate Climate Conference, oral presentation, April 2006.

Magi, B.I., Q. Fu and P.V. Hobbs, Modeling aerosol direct radiative forcing with observed properties of southern African biomass burning aerosol, *EOS Trans. AGU*, *86*(52), Fall Meet. Suppl., Abstract A31A-0819, 2005.

Magi, B.I. and P.V. Hobbs, Modeling the vertically stratified atmosphere of southern Africa during the biomass burning season, *EOS Trans. AGU*, *85*(47), Fall Meet. Suppl., Abstract A31C-0069, 2004.

Gao, S., D. A. Hegg, P. V. Hobbs, T. Kirchstetter, and **B. Magi**, Water-Soluble Chemical Components in Biomass Burning Aerosols in Southern Africa, American Association for Aerosol Research Conference, October 2001.

Magi, B.I. and P.V. Hobbs, Effects of Humidity on Light Scattering by Aerosols in Southern Africa During the Biomass Burning Season, Air and Waste Management Association Conference oral presentation, October 2001.

Field Projects

CLAMS, Summer 2001: Aerosol scientist on the University of Washington research aircraft to study urban pollution outflow from the eastern United States.

SAFARI, Summer 2000: Chemical filter scientist on the University of Washington research aircraft to characterize the biomass burning emissions in southern Africa.

Service

Referee for *J. Geophys. Res.*, *Geophys. Res. Lett.*, *Atmos. Res.*, *Sci. Total Env.*, *Annales Geophysicae*, 2005-present.

Event Supervisor, Regional Science Olympiad for Northern New Jersey High Schools, Remote Sensing of Global Warming, January 2009.

Proposal Reviewer, NASA Global Climate Change Education, December 2008.

Reviewer for the Fourth DISCCRS (DISsertation initiative for the advancement of Climate Change ReSearch) Symposium, June 2008.

Reporter at the NOAA Climate Research and Modeling Panel Review, March 2008.

Representative of the Princeton University and NOAA Cooperative Institute for Climate Science at the NOAA Capabilities Fair, February 2008.

Reviewer for NOAA Hollings Undergraduate Scholarship Program, March 2007.

Member of Panel on Global Warming, Ocean Research College Academy, Everett Community College in Washington, December 2006.

"Aerosol, Cloud, and Ice Climate Feedbacks" session co-chair, University of Washington Program on Climate Change Graduate Climate Conference, April 2006.

Reviewer for the Intergovernmental Panel on Climate Change Fourth Assessment Report, 2005-2006.

Faculty Search Committee graduate student member, University of Washington, 2003, 2005, 2006.

Training Seminars

Teaching College Science, Three-day course hosted by the Princeton University McGraw Center, Princeton, New Jersey, 2009.

Presenting Data and Information, One-day course taught by Edward Tufte, Seattle, Washington, 2005.

Awards

AIMES (Analysis, Integration and Modeling of the Earth System) Young Scholars Network Scholar, July 2008.

Outstanding Referee, *Annales Geophysicae*, 2007.

DISCCRS (DISsertation initiative for the advancement of Climate Change ReSearch) Scholar, September 2007.

Professional Memberships

American Geophysical Union, 2004-present.