

Biographical Sketches for Zong-Liang Yang

Education

Macquarie University (Australia)	Atmospheric Sciences	Ph.D. 1989 – 1992
Melbourne University (Australia)	Meteorology	M.S. 1986 – 1989
Nanjing Institute of Meteorology (China)	Meteorology	B.S. 1980 – 1984

Appointments

2008–	Professor (with tenure), The University of Texas at Austin
2005–2008	Associate Professor (with tenure), The University of Texas at Austin
2001–2005	Assistant Professor, The University of Texas at Austin
1993–2001	Postdoctoral Fellow to Research Associate Professor, University of Arizona
1992–1993	Research Associate, Macquarie University, Sydney, Australia

Selected Publications

(A full list of 80+ peer-reviewed papers is at www.geo.utexas.edu/climate/Research/publications.htm; the underlined names are the students supervised by Z.-L. Yang.)

- Yang, Z.-L., 2008: Description of recent snow models, in *Snow and Climate*, Edited by R. L. Armstrong and E. Martin, Cambridge University Press, pp. 129–136.
- Yang, Z.-L., 2004: Modeling land surface processes in short-term weather and climate studies, in *Observations, Theory, and Modeling of Atmospheric Variability*, (ed. X. Zhu), World Scientific Series on Meteorology of East Asia, Vol. 3, World Scientific Publishing Corporation, Singapore, pp. 288–313.
- Yang, Z.-L. and G.-Y. Niu, 2003: The Versatile Integrator of Surface and Atmosphere Processes (VISA) Part 1: Model description, *Global and Planetary Change*, 38, 175–189.
- Gulden, L.E. and **Z.-L. Yang**, 2006: Development of species-based, regional emission capacities for simulation of biogenic volatile organic compound emissions in land-surface models: An example from Texas, USA, *Atmospheric Environment*, **40(8)**, 1464–1479.
- Jiang, X., C. Wiedinmyer, F. Chen, **Z.-L. Yang**, and J. C.-F. Lo, 2008: Predicted impacts of climate and land use change on surface ozone in the Houston, Texas, area, *J. Geophys. Res.*, **113**, D20312, doi:10.1029/2008JD009820.
- Lo, J. C.-F., **Z.-L. Yang**, and R. A. Pielke Sr., 2008: Assessment of three dynamical climate downscaling methods using the Weather Research and Forecasting (WRF) model, *J. Geophys. Res.*, 113, D09112, doi:10.1029/2007JD009216.
- Lowrey, M. R. K. and **Z.-L. Yang**, 2008: Assessing the capability of a regional-scale weather model to simulate extreme precipitation patterns and flooding in Central Texas, *Weather and Forecasting*, 23, 1102–1126.
- Niu, G.-Y., and **Z.-L. Yang**, 2007: An observation-based formulation of snow cover fraction and its evaluation over large North American river basins, *J. Geophys. Res.*, 112, D21101, doi:10.1029/2007JD008674.
- Rosero, E., **Z.-L. Yang**, L. E. Gulden, G.-Y. Niu, and D. J. Gochis, 2009: Evaluating enhanced hydrological representations in Noah-LSM over transition zones: Implications for model development, *J. Hydrometeorology*, **10**, 600–622. DOI:10.1175/2009JHM1029.1
- Su, H., **Z.-L. Yang**, G.-Y. Niu, and R. E. Dickinson, 2008: Enhancing the estimation of continental-scale snow water equivalent by assimilating MODIS snow cover with the ensemble Kalman filter, *J. Geophys. Res.*, 113, D08120, doi:10.1029/2007JD009232.

Awards and Recognitions

- Distinguished Achievement Award for NCAR CCSM CLM 3.5 Development, 2008 (shared)
- The Joseph C. Walter Jr. Excellence Award, UT-Austin Jackson School of Geosciences, 2007
- Teaching Excellence Award, UT-Austin College of Natural Sciences, 2004
- Dean's Fellow, UT-Austin College of Natural Sciences, 2004

Coauthor of Best Student Poster Presentation, 8th Conference on Atmospheric Chemistry, 86th Annual Meeting of the American Meteorological Society, Jan 28–Feb 2, 2006
Coauthor of AGU Journal Highlight of a GRL paper led by Gulden et al., 2007: Improving land-surface model hydrology: Is an explicit aquifer model better than a deeper soil profile? *Geophys. Res. Lett.*, **34**, L09402, doi:10.1029/2007GL029804
Macquarie University Postgraduate Research Award, Australia, 1989–1992

Synergistic Activities

Co-Chair, NCAR CCSM Land Model Working Group, 2008–2010
Adjunct Professor, Institute of Atmospheric Physics, Chinese Academy of Sciences, 2006–
Adjunct Professor, Lanzhou University, 2008–
UT-Austin Member Representative, University Corporation for Atmospheric Research (UCAR), 2001, 2003, 2005, 2008–present.
Initiator and Organizer of Climate Forum Seminar Series, Jackson School of Geosciences, 2008–2009.
Developer of the Community Land Model in collaboration with the National Center for Atmospheric Research and other research communities
Panel Member at the NSF Community Hydrological Modeling Development panel meeting, Washington, D.C., March 26–27, 2008
Panel Member at the NCAR Colorado Headwaters Workshop panel meeting, Boulder, Colorado, USA, March 19–20, 2008
Member, Organizing Committee, the NCAR Biosphere-atmosphere Exchange of Aerosols within Cloud, Carbon and Hydrologic cycles, including Organics & Nitrogen (BEACHON) Program, 2007
Member of Steering Committee and Conference Chair, “Climate Change Impacts on Texas Water” Conference, Austin, Texas, 28–30 April, 2008
Organizer, “Land–Atmosphere Interactions”, 21st Conference on Hydrology, American Meteorological Society 87th Annual Meeting, San Antonio, Texas, 14–18 January 2007
Convener, “Land Surface Processes: Observation, Theory and Modeling”, Western Pacific Geophysics Meeting, 24–27 July, 2006, Beijing. Convener, American Geophysical Union (AGU) 2002 Fall Meeting, “Snow and Ice in the Earth System I (oral) and II (posters)”
Reviewer, the Intergovernmental Panel on Climate Change’s 1999 (Third) and 1995 (Second) Scientific Assessment of Climate Change

Graduate Students Advised and Post-docs/Research Associates Sponsored Last 5 Years

Cedric David (Ph.D., 2007–2009; Postdoc 2009–), Lindsey E. Gulden (Ph.D., 2004–2009), Xiaoyan Jiang (Ph.D., 2006–), Marla R. Knebl Lowrey (Ph.D., 2002–2006), Enrique Rosero (Ph.D., 2007–2009), Seungbum (Bryan) Hong (Postdoc 2008–), Hua Su (Ph.D., 2005–2009), Qianru Zeng (MS, 2002–2004), Jeff Chunfung Lo (Postdoc, 2006–2008), Guo-Yue Niu (Research Associate 2001–2009; Postdoc 1998–2001), Yiwen Xu (Postdoc, 2004–2005), Yongsheng Xu (Postdoc 2007–2008), Xuemei Wang (Sr. Research Fellow, 2006–2007)

Collaborators Last 5 Years

Gordon Bonan, NCAR; Fei Chen, NCAR; Robert E. Dickinson, UT-Austin; Jay Famiglietti, UCI; C. Fu, Nanjing University, China; Dave Gochis, NCAR; Dave Lawrence, NCAR; Z.G. Ma, Chinese Academy of Sciences, China; Ken Mitchell, NCEP; Keith Oleson, NCAR; Roy Rasmussen, NCAR

Graduate and Postdoctoral Advisors

Ian Simmonds, MS Advisor, Melbourne University, Australia
Ann Henderson-Sellers, Ph.D. Advisor, Macquarie University, Australia
Robert E. Dickinson, Postdoctoral Advisor, University of Texas at Austin
W. James Shuttleworth, Postdoctoral Advisor, University of Arizona