

**ROBERT E. DICKINSON**  
**CURRICULUM VITAE**

**DICKINSON, Robert E.**.....Professor  
Jackson School of Geosciences  
Department of Geological Sciences  
The University of Texas at Austin

**Education:**

Ph.D.Meteorology, 1966, Massachusetts Institute of Technology  
M.S.Meteorology, 1962, Massachusetts Institute of Technology  
B.A.Chemistry and Physics, 1961, Harvard University

**Employment History:**

<b>Professor:</b> University of Texas at Austin, TX Jackson School of Geosciences, Dept. of Geological Sciences	2008 – present
<b>Professor:</b> Georgia Institute of Technology, Atlanta, GA Endowed Chair, Georgia Power/Georgia Research Alliance	1999- 2008
<b>Regents Professor:</b> University of Arizona, Tucson, AZ Department of Atmospheric Sciences Institute of Atmospheric Physics Department of Hydrology and Water Resources Laboratory of Tree Ring Research	1993-1999
<b>Professor:</b> University of Arizona, Tucson, AZ Department of Atmospheric Sciences Institute of Atmospheric Physics Department of Hydrology and Water Resources Laboratory of Tree Ring Research	1990-1993
<b>Deputy Division Director:</b> NCAR, Boulder, CO Climate and Global Dynamics Division (formerly, Atmospheric Analysis and Prediction Division)	1981-1990
<b>Head:</b> NCAR, Climate Section, Boulder, CO	1975-1981
<b>Scientist:</b> NCAR, Boulder, CO	1968-1975
<b>Research Associate:</b> MIT, Cambridge, MA	1966-1968

**Current Research Interests:**

Global Change, Climate Modeling, Remote Sensing, Tropical Deforestation, Interaction of Terrestrial and Atmospheric Hydrological Processes, and Drought.

## **Honors, Awards, and Recognitions:**

Intergovernmental Panel on Climate Change, Received the Nobel Peace Prize (2007)  
Georgia Tech Outstanding Faculty Research Author (2006)  
Chinese Academy of Sciences, Foreign Member (2006)  
Honorary Professor, Beijing Normal University (2005)  
Einstein Lectureship, Chinese Academy of Sciences, Institute of Remote Sensing (2005)  
Honorary Membership in the European Geosciences Union (2004)  
ISI Web of Knowledge, *ISI Highly Cited.com* (2003)  
Georgia Research Alliance/Georgia Power, Endowed Chair (2002-2008)  
Honorary Membership in the European Geophysical Society (2002)  
National Academy of Engineering, Member (2002)  
American Geophysical Union; Roger Revelle Medal (1996)  
American Meteorological Society, Rossby Award (1996)  
G. Unger Vetlesen, Lamont-Doherty Earth Observatory of Columbia University (1995)  
Physics Distinguished Achievement Award for Outstanding Publication Contribution (1992)  
American Meteorological Society, Jule G. Charney Award (1988)  
National Academy of Science, Member (1988)  
American Geophysical Union; Fellow (1987)  
American Association for the Advancement of Science, Fellow (1984)  
American Meteorological Society; Meisinger Award (1973)  
American Geophysical Union, Fellow

## **Professional Societies and Committees:**

National Research Council (NRC), Member, Committee to Advise the U.S. Global Change Research Program (2011 – present)  
National Research Council (NRC), Committee Member, A National Strategy for Advancing Climate Modeling (2011 – present)  
National Research Council (NRC), Member, Committee on Assessment of Intraseasonal to Interannual Climate Prediction and Predictability (Dec. 2008-Sept. 2010)  
National Research Council (NRC), Report Coordinator, Stabilization Targets for Atmospheric Greenhouse Gas Concentrations (April 2010-July 2010)  
National Research Council (NRC), Report Review Committee, Indicators for Understanding Global Climate Change (Dec. 2009-May 2010)  
Biological and Environmental Research Advisory Committee (BERAC), DOE, Member (March 21, 2006-March 21, 2011)  
Center for Ocean-Land-Atmosphere Studies (COLA), External Advisory Committee (1998-2010; chair 2004-2010)  
National Academy of Engineering, Member (2009)  
American Association for the Advancement of Science (AAAS), Member (2009)  
American Meteorological Society, Member (2009)  
UCAR Board of Trustees (2006-2009)  
UCAR Board of Trustees' Personnel Committee, Member (2006-2009)  
Committee on Strategic Advice on the Climate Change Science Program, National Research Council (NRC), Member (2006-2008)  
Committee on Surface Temperature Reconstructions for the Past 1,000-2,000 Years: Synthesis of Current Understanding and Challenges for the Future, National Research Council (NRC), Member (2006)  
DOE SciDAC, Review Panel Member (2006)

Institutional Trustee of the University Corporation for Atmospheric Research (2005-2009)  
IPCC AR4 Lead Author, Chapter 7 (2004-2007)  
LTER National Advisory Board (2004-2007)  
Co-Chair, IGBP-IHDP-WCRP Joint Carbon Project Committee (2001-2006)  
American Geophysical Union, President, 2002-2004, President-elect (2000-2002)  
Atmospheric Sciences Section, President (1988-1992)  
Committee on Earth As A System, Member (1987-1989)  
Roger Revelle Award Committee, Member (1998)  
William Bowie Award Committee, Member (1997)  
American Institute of Physics (AIP), Governing Board (2004-2007)  
AIP Audit Committee, Member (2004-2007)  
Oak Ridge National Laboratory (ORNL), Global Change Research Advisory Panel (2003)  
National Academy of Sciences, Committee on the Science of Climate Change (2001)  
American Association for the Advancement of Science (AAAS): Atmospheric and Hydrospheric Sciences Section W, Chair (2001-2002)  
American Meteorological Society, Chairman, Committee on Biometeorology&Aerobiology (1987-1989)  
American Meteorological Society, Member, Committee on the Upper Atmosphere (1971-1974)  
American Meteorological Society, Member, Committee on Climate Change (1978-1981)  
American Meteorological Society, Member, Awards Committee (1998); Chair (1999)  
Arctic Research Consortium of the United States, Chairman, Oversight Panel (1992-1994)  
Center for Clouds, Chemistry & Climate External Advisory Panel, External Advisory Chair (1996-present)  
C4-EAP, Chair (2000)  
U.S. CLIVAR (Climate Variability and Predictability), Co-Chair (2001-2002)  
Climate System Modeling, NCAR, Land Working Group (1995-1999)  
Climate System Modeling, NCAR, Scientific Steering Committee (1995-2001)  
CMAP Science Advisory Committee, NCAR, 1990-1998  
Cooperative Institute for Research in Environmental Sciences (CIRES) External Review Team (1997)  
COSPAR, Member, Subcommittee A1 (1986)  
Ecological Society of America, Member  
European Centre for Medium-Range Weather Forecasts, workshop for application in Numerical Weather Prediction  
GCIP Science Panel, Member  
Georgia Institute of Technology External Evaluation Committee (1996)  
A Global Change System for Analysis, Research and Training, NCAR (1996)  
Global Energy and Water Experiment of WCRP, Member, International Steering Committee (1988-1996)  
Institute for the Study of Planet Earth, Chairman, Executive Committee (1994-1996)  
International Commission on Climate (ICCL), Secretary (1983-1987)  
International Geosphere Biosphere Program, GAIM Committee, Member (end 1998)  
International Satellite Land Surface Climatology Project, Member, Steering Committee (1984-1989)  
International Society of Biometeorology, Member  
Land Processes DAAC Science Advisory Panel, Member (USGS/NASA in cooperation with EROS Data Center as Land Processes Distributed Active Archive Center (DAAC) for EOS Data/Information System) (1993-1998)  
NASA Goddard Space Flight Center, Member, Visiting Committee for Review of Science Programs (1986, 1997)  
NASA Goddard Space Flight Center, Biospheric Sciences Branch of the Laboratory for NASA Goddard Space Flight Center, Data Assimilation Office, Scientific Advisory Panel (1995-2005)  
National Center for Ecological Analysis and Synthesis (1996)  
National Research Council, Committee on the Science of Climate Change (2001-2002)  
National Research Council, Chairman, Climate Research Committee (1990-1992)  
Climate Research Committee, Member (1985-1990; 1995-1997)

TOGA Panel, Member (1995)  
Panel on Upper Atmospheric Physics, Committee on Polar Research, Member (1973-1976)  
Panel for the Middle-Atmosphere Program, Cmte. for Solar-Terrestrial Research, Member (1979-1980)  
Climatic Impact Committee, Member (1975-1976)  
Panel on Chemistry and Stratospheric Transport, Committee on Impacts of Stratospheric Change,  
Member (1977-1979)  
Committee on Chemistry and Physics of Ozone Depletion, Member (1981-1982)  
Panel on Global Tropospheric Chemistry, Board of Atmospheric Sciences & Climate, Member (1982-  
1984)  
Committee on Earth Sciences, Member (1985-1989)  
Committee on Global Change, Member (1987-1992)  
Ad Hoc Planning Panel on Climate and Hydrology, Chairman (1987-1988)  
Review Panel for U. S. Global Change Research Program, Member (1990)  
Review Panel for EOS Program, Member (1990)  
Committee on Climate Change and Water Resources Management, Member (1990-1992)  
National Science Foundation, NCEP (1998)  
Scientific and Technical Advisory Committee, University of Chicago, Argonne (1995-1997)  
UCAR, Member, Science Steering Committee of Climate Systems Modeling Program (1990-1992)  
US/Brazil Bilateral Project, Participant, "Regional and Global Aspects of Precipitation in the Amazon  
Basin" (1985-1987)  
World Climate Research Programme, Co-Chair, The Carbon Challenge, An IGBP-IHDP-WCRP Joint  
Project (2001)  
World Climate Research Program of the World Meteorological Organization, Member of Land Surface  
Processes and Climate Working Group (1984-1989)

### **Visiting Committee Member to Other Universities:**

M.I.T., Department of Earth, Atmosphere and Planetary Science (1994, 1996, 1998)  
Yale, Institute of Biospheric Studies (1995)  
UCLA, Department of Atmospheric Science (2003)

### **Editorial Activities:**

Carbon Balance and Management Journal, Founding Editor, 2010-present  
Carbon Balance and Management Journal, Joint editor-in-Chief, 2005-2010  
Journal of Climate, Associate Editor, 1993-1995  
Journal of Atmospheric Sciences, Editor, 1991-1993  
Climatic Change, Editor, 1984-2000  
Environment, Editor, 1984-1997

### **Editorial Boards**

Proceeding of the National Academy of Sciences (PNAS), Editorial Board (2010-present)  
Papers in Meteorological Research, 1981-1991  
Pure and Applied Geophysics, 1983-1986  
Weatherwise, 1980-1998

### **Reviews:**

Dickinson, R.E., 2001, Review of *Global Warming: the Hard Science*, L. D. Danny Harvey Prentice  
Hall, 336 pp. + xxiv  
Dickinson, R.E., 1998, Review of *Laboratory Earth: The Planetary Gamble We Can't Afford to Lose*. S.

- Schneider, ed., *EOS*
- Dickinson, R.E., 1998, Review of *Global Warming, The Complete Briefing*. J. Houghton, ed., *Bull. AMS*, **79**, 10
- Dickinson, R.E., 1997: *Fundamentals of Atmospheric Physics*. M.L. Salby, ed., *EOS*
- Dickinson, R.E., 1995: Review of *Biotic Feedbacks in the Global Climatic System*. G.M. Woodwell and F.T. Mackenzie, eds., *Bull. AMS*
- Dickinson, R.E., 1995: Review of Drought Follows the Plough
- Dickinson, R.E., 1994: Review of *Vegetation Dynamics & Global Change*. A.M. Soloman and H. H. Shugart, eds., *Environment*, **36**, 4, 27
- Dickinson, R.E., 1994: Review of *Climate System Modeling*. K.E. Trenberth, ed., *Environment*, **36**, 4, 26
- Dickinson, R.E., 1994: Review of *Climate and Sea-Level Change: Observations, Projections and Implications*. R.A. Warrick, E.M. Barrow and T.M.L. Wigley, eds., *Environment*, **36**, 4, 25
- Dickinson, R.E., 1993: Review of *Scientists on Gaia*, by S. Schneider and P. Boston, eds., *Bull. AMS*, **74**, 3, 451
- Dickinson, R.E., 1991: Review of *Probable Impact of Deforestation on Hydrological Processes, Climatic Change*, **19**, 175
- Dickinson, R.E., 1984: Review of *The Global Climate*, by J.T. Houghton, ed. *Science*, **225**, 4669, 28  
September 1984, 1466-1467
- Dickinson, R.E., 1982: Review of *Biophysical Ecology*, by D. Gates. *Climatic Change*, 430-431

### **Refereed Publications – 2012:**

- Wang, K.C., R.E. Dickinson, and S. Liang, 2012: Global Atmospheric Evaporative Demand over Land from 1973 to 2008, *Journal of Climate*, doi:10.1175/JCLI-D-11-00492.1 (in press)
- Fu, R., N. Fernando, L. Yin, T. Ren, Z. Yang, A. Bowerman, and R.E. Dickinson, 2012: Assessing Future Changes of Climate and Drought over the South-Central United States Projected by the CMIP5 Models, *Journal of Climate* (in review)
- Yin, L., R. Fu, E. Shevliakov, and R.E. Dickinson, 2012: How Well Can CMIP5 Simulate Rainfall Seasonal and Interannual Variability over Amazonian and South American Monsoon Regions and Their Controlling Processes? *Climate Dynamics* (in review)
- Wang, K.C., R.E. Dickinson, Q. Ma, J.A. Augustine, and M. Wild, 2012: From Dimming to Brightening: Uncertainty of Measurements, *Journal of Climate* (in review)
- Wang, K.C., J. Augustine, and R.E. Dickinson, 2012: Evaluation of Surface Incident Solar Radiation Observations Collected by SURFRAD, USCRN, and AmeriFlux Networks from 1995 to 2011, *Journal of Geophysical Research* (in review)
- Wang, K.C., R.E. Dickinson, H. Su, and K.E. Trenberth, 2012: Contrasting trends of mass and optical properties of aerosols over the northern hemisphere from 1992 to 2011, *Atmospheric Chemistry and Physics* (in press)
- Wang, K.C. and R.E. Dickinson, 2012: A review of global terrestrial evapotranspiration: Observation, modeling, climatology, and climatic variability, *Rev. Geophys.*, **50**, RG2005, 54pp, doi:10.1029/2011RG000373
- Su, H., R.E. Dickinson, K.L. Findell, and B.R. Lintner, 2012: How are spring snow conditions in central Canada related to early warm season precipitation? *Journal of Hydrometeorology* (in review)

Pu, B. and R.E. Dickinson, 2012: Could vegetation feedbacks amplify global warming? *Journal of Geophysical Research-Atmospheres* (in press)

Sun, Y., L. Gu, R.E. Dickinson, and B. Zhou, 2012: Forest greenness after the massive 2008 Chinese ice storm: integrated effects of natural processes and human intervention, *Environmental Research Letter*, **7**, 035702, 7pp, doi:10.1088/1748-9326/7/3/035702

Sun, Y., L. Gu, and R.E. Dickinson, 2012: The effect of mesophyll conductance on gross primary production: global simulations with a land surface model, *Journal of Geophysical Research-Biogeosciences* (in review)

Sun, Y., L. Gu, and R.E. Dickinson, 2012: A numerical issue in calculating the coupled carbon and water fluxes in a climate model, *Journal of Geophysical Research-Atmospheres* (in review)

Samanta, A., Y. Knyazikhin, L. Xu, R.E. Dickinson, R. Fu, M. H. Costa, S.S. Saatchi, R.R. Nemani, and R.B. Myneni, 2012: Seasonal changes in leaf area of Amazon forests from leaf flushing and abscission, *J. Geophysical Research*, **117**, G01015, doi:10.1029/2011JG001818

### **Refereed Publications – 2011:**

Ren, D., R. Fu, L. M. Leslie, and R.E. Dickinson, 2011: Modeling the mudslide aftermath of the 2007 Southern California Wildfires, *Natural Hazards*, **57**, No.2, 327-343, doi:10.1007/s11069-010-9615-5

Dickinson, R.E., 2011: Coupled atmospheric circulation models to biophysical, biochemical, and biological processes at the land surface, *The Development of Atmospheric General Circulation Models*, Leo Donner, Wayne Schubert, Richard Somerville (eds), Cambridge University Press, 255+xvipp

Chen, H., R.E. Dickinson, Y. Dai, and L. Zhou, 28 January 2011: Sensitivity of simulated terrestrial carbon assimilation and canopy transpiration to different stomatal conductance and carbon assimilation schemes, *Climate Dynamics*, **36**, 1037-1054, doi:10.1007/s00382-010-0741-2

Ren, D., R. Fu, L. M. Leslie, and R.E. Dickinson, 2011: Predicting storm-triggered landslides, *Bull. Amer. Meteor. Soc.*, **92**, issue 2, 129-139, doi: 10.1175/2010BAMS3017.1

### **Refereed Publications – 2010:**

Su, H., Z.-L. Yang, R.E. Dickinson, C.R. Wilson, and G.-Y. Niu, 2010: Multisensor snow data assimilation at the continental scale: The value of Gravity Recovery and Climate Experiment terrestrial water storage information, *J. Geophys. Res.*, **115**, D10104, doi:10.1029/2009JD013035

Ren, D., L. M. Leslie, R. Fu, R.E. Dickinson, and X. Xin, 2010: A storm-triggered landslide monitoring and prediction system: Formulation and case study, *Earth Interactions*, doi: 10.1175/2010EI337.1

Wang, K., R.E. Dickinson, M. Wild, and S. Liang, 2010: Evidence for decadal variation in global terrestrial evapotranspiration between 1982 and 2002 Part I: method development, *J. Geophys. Res.*, **115**, D20112, doi:10.1029/2009JD013671

Wang, K., R.E. Dickinson, M. Wild, and S. Liang, October 2010: Evidence for decadal variation in global terrestrial evapotranspiration between 1982 and 2002 Part II: Global application, *J. of Geophysical Research*, **115**, D20113, doi:10.1029/2010JD013847

Jin, M. and R.E. Dickinson, 2010: Land surface skin temperature climatology: benefitting from the strengths of satellite observations, *Environmental Research Letter*, 5, Number 4, 044004-044017, doi: 10.1088/1748-9326/5/4/044004

Ren, D., L. M. Leslie, R. Fu, and R.E. Dickinson, 2010: Modeling the Mudslide Aftermath of the 2007 Southern California Wildfires, *Natural Hazards*, doi: 10.1007/s11069-010-9615-5

Zhou, L., Dickinson, R.E., Dai, A., and Dirmeyer, P., 13 August 2010: Detection and Attribution of Anthropogenic Forcing to Diurnal Temperature Range Changes from 1950 to 1999: Comparing Multi-Model Simulations with Observations, *Climate Dynamics*, **35**, 1289-1307, doi:0.1007/s00382-009-0644-2

### **Refereed Publications – 2009:**

Zhang Y., Fu, R., Yu, H., Qian, Y., Dickinson, R.E., Silva Dias, M.A.F, da Silva Dias, P.L. and Fernandes, K., 30 May 2009: Impact of biomass burning aerosol on the monsoon circulation transition over Amazonia, *Geophys. Res. Lett.*, **36**, L10814, 2009 doi:10.1029/2009GL037180

Zhou, L., Dickinson, R.E., Dirmeyer, P., Dai, A., and Min, S.-K., 23 January 2009, Spatiotemporal patterns of changes in maximum and minimum temperatures in multi-model simulations, *Geophysical Research Letters*, **36**, L02702, 2009 doi:10.1029/2008GL036141

Wang, K., Dickinson, R.E., and Liang, S., 13 March 2009: Clear Sky visibility has Decreased over Land Globally from 1973 to 2007, *Science*, **323**, No. 5920,1468-1470

### **Refereed Publications – 2008:**

Su, H., Yang, Z.L., Niu, G.Y., Dickinson, R.E., 2008, Enhancing the estimation of continental-scale snow water equivalent by assimilating MODIS snow cover with the ensemble Kalman filter, *J. Geophys. Research*, William Byrd Press, **113**, Issue D8, Article No. D08120

Dickinson, R.E., Zhou, L., Tian, Y., Liu, Q, Lavergne, T., Pinty, B., Schaaf, C. B., Knyazikhin, Y., 2008: A three-dimensional analytic model for the scattering of a spherical bush, *J. Geophys. Res.*, **113**, D20113, doi:10.1029/2007JD009564

Liu, Q., L. Gu, R.E. Dickinson, Y. Tian, L. Zhou, and W. M. Post, October 2008: Assimilation of satellite reflectance data into a dynamical leaf model to infer seasonally varying leaf areas for climate and carbon models, *J. Geophys. Res.*, **113**, D19113, doi: 10.1029/2007J D009645

Zhang, T., R. Fu, H. Yu, R.E. Dickinson, et al., 2008: A regional climate model study of how biomass burning aerosol impacts land-atmosphere interactions over the Amazon, *J. Geophys. Res.*, **113**, Issue D14, Article No. D14S15

Wang, K., R.E. Dickinson, and S. Liang, May 2008: Observational evidence on the effects of clouds and aerosols on net ecosystem exchange and evapotranspiration, *Geophys. Res. Lett.*, **35**, L10401, doi: 10.1029/2008GL034167

Dickinson, R.E., 2008: Determination for climate models of the multi-scattered solar radiation from a canopy with leaves modeled as a 3D distribution of homogeneous isotropic scatters, *J. of Computational Physics*, **227**, 3367-3677

Dickinson, R.E., Tian, Y.G., Liu, Q. , Zhou, L., 2008: Dynamics of leaf area for climate and weather models, *J. Geophys. Res.*, **113**, Issue: D16, Art. Nr. D16115

Fang, H.L., A. L.Liang, J. R. Townsend, R.E. Dickinson, et al., August 2008: Spatially and temporally continuous LAI data sets based on an integrated filtering method: Examples from North America, *Remote Sens. Environ.*, **112**, (1) 75-95

Gao, H., R. Fu, R.E. Dickinson, R. Negrón Juárez, 2008. A Practical Method for Retrieving Land Surface Temperature from AMSR-E over the Amazon Forest, *IEEE Transactions on Geosciences and Remote Sensing*, **46**, No. 1,193-199

Huang, Y., W. L. Chameides, Q. Tan and R.E. Dickinson, 2008: Characteristics of anthropogenic sulfate and carbonaceous aerosols over East Asia: regional modeling and observation, MAIRS special issue in *Advances in Atmospheric Sciences*, **25**, Issue 6, 946-959

Oleson, K.W., G.-Y. Niu, Z.-L. Yang, D.M. Lawrence, P.E. Thornton, P.J. Lawrence, R. Stockli, R.E. Dickinson, et al., 2008: Improvements to the Community Land Model and their impact on the hydrological cycle., *J. Geophys. Res.*, **113**, G01021, doi: 10.1029/2007JG000563

Zhou, L., R.E. Dickinson, P. Dirmeyer, H. Chen, Y. Dai, and Y. Tian, 2008: Asymmetric response of maximum and minimum temperatures to soil emissivity change over the Northern African Sahel in a GCM, *Geophys. Res. Lett.*, **35**, L05402, doi: 10.1029/2007GL032953.

### **Refereed Publications – 2007:**

Huang, D., Y. Knyazikhin, R.E. Dickinson, M. Rautiainen, et al., 2007: Canopy spectral invariants for remote sensing and model applications, *Remote Sens. Environ.*, **106**(1): 106-122

Huang, Y., W.L. Chameides, and R.E. Dickinson, 2007: Direct and indirect effect of anthropogenic aerosols on regional precipitation over East Asia, *J. Geophys. Res.*, **112**, doi:10.1029/2006JD007114

Li, W., R.E. Dickinson, R. Fu, G.-Y. Niu, Z.-L. Yang, J.G. Canadell, 2007: Future precipitation changes and their implications for tropical peatlands, *Geophys. Res. Lett.*, **34**, L01403, doi:10.1029/2006G1028364

Myneni, R.B., W. Yang, R.R. Nemani, A.R. Huete, R.E. Dickinson, et al., 2007: Large seasonal swings in leaf area of Amazon rainforests, *PNAS*, **104**, no. 12, 4820-4823

Niu, G.-Y., Z.-L. Yang, R.E. Dickinson, L.E. Gulden, and H. Su, 2007: Development of a simple groundwater model for use in climate models and evaluation with GRACE data, *J. Geophys. Res.*, **112**, D07103, doi: 10.1029/2006JD007522

Sellers, P.J., M. J. Fennessy and R.E. Dickinson, 2007: A numerical approach to calculating soil wetness and evapotranspiration over large grid areas, *J. Geophys Res.*, **112**, d18106, DOI: 10.1029/2007JD008781

Shabanov, N.V., D. Huang, Y. Knjazikhin, R.E. Dickinson, et al., 2007: Stochastic radiative transfer model for mixture of discontinuous vegetation canopies, *J. Quan. Spectroscopy & Rad. Tfr.*, **107**(2), 236-262

Tian, Y., R.E. Dickinson, L. Zhou, 2007: Four-stream Isector Approximation for Canopy Radiative Transfer, *J. Geophys. Res.*, **112**, D04107, doi:10.1029/2006JD007545

Wu, W., R.E. Dickinson, H. Wang, Y. Liu and M. Shaikh, 2007: Covariabilities of spring soil moisture and summertime United States precipitation in a climate simulation. *Int. J. Clim.*, **27**(4), 429-438, published online 25 September 2006 in Wiley InterScience, doi: 10.1002/joc.1419

Yu, H., R. Fu, R.E. Dickinson, Y. Zhang, M. Chen and H. Wang, 2007: Interannual variability of smoke and warm cloud relationships in the Amazon as inferred from MODIS retrievals, *Remote Sens. Environ.*, **111**, 435-449



Zhou, L., R.E. Dickinson, Y.Tian, R. Vose and Y.-J. Dai, 2007: Impact of vegetation removal and soil aridation on diurnal temperature range in a semiarid region: Application to the Sahel, *PNAS*, **104**, 17937-17942 on-line 10.1073/pnas.0700290104

### **Refereed Publications – 2006:**

Dickinson, R.E., K.W. Oleson, G. Bonan, F. Hoffman, P. Thornton, M. Vertenstein, Z-L. Yang, and X. Zeng, 2006. The Community Land Model and Its Climate Statistics as a Component of the Community Climate System Model, *J. Climate*, special issue, **19**, No. 11, 2302-2324

Fu, R., Y.L. Hu, J.S. Wright, J.H. Jiang, R.E. Dickinson, M.X. Chen, M. Filipiak, W.G. Read, J.W. Waters, and D. L. Wu, 2006: Short circuit of water vapor and polluted air to the global stratosphere by convective transport over the Tibetan Plateau, *Proc. Natl. Acad. Sci. U.S.A.*, **103**, 5664-5669, doi:10.1073/pnas.0601584103

Huang, Y., R.E. Dickinson, and W.L. Chameides, 2006: Impact of aerosol indirect effect on surface temperature over East Asia, *Proc. Natl. Acad. Sci. U.S.A.*, **103**, 4371-4376, doi:10.1073/pnas.0504428103

Li, W., R. Fu, and R.E. Dickinson, 2006a: Rainfall and its seasonality over the Amazon in the 21st century as assessed by the coupled models for the IPCC AR4, *J. Geophys. Res.*, **111**, D02111, doi:10.1029/2005JD006355

Pinty, B., T. Lavergne, R.E. Dickinson, J.-L. Widlowski, N. Gobron, and M.M. Verstraete, 2006: Simplifying the interaction of land surfaces with radiation for relating remote sensing products to climate models, *J. Geophys. Res.*, **111**, D02116, doi:10.1029/2005JD005952

Tsvetsinskaya, E.A., C.B. Schaaf, F. Gao, A.H. Strahler, and R.E. Dickinson, 2006: Spatial and temporal variability in Moderate Resolution imaging Spectroradiometer-derived surface albedo over global arid regions, *J. Geophys. Res.*, **111**, D20106, doi: 10.1029/2005JD006772

Wang, A. H., X. Zeng, S.S.P. Shen, Q-C. Zeng, R.E. Dickinson, 2006. Timescales of Land Surface Hydrolog, *J. Hydrometeorol.*, **7**, 868-879

Yang, W., N.V. Shabanov, D. Huang, W. Wang, R.E. Dickinson, R.R. Nemani, Y. Knyazikhin and R.B. Myneni, 2006: Analysis of leaf area index products from combination of MODIS Terra and Aqua data, *Remote Sens. Environ.*, **104**, (3): 297-312

Wei, J., R.E. Dickinson, and N. Zeng., 2006: Climate variability in a simple model of warm climate land-atmosphere interaction, *J. Geophys. Res.- Atmos.*, **111**, G03009, doi:10.1029/2005JG000096

Zeng, X. D., A.H. Wang, Q.C. Zeng, R.E. Dickinson, X. Zeng, and S.S.P. Shen, 2006: Intermediately complex models for the hydrological interactions in the atmosphere-vegetation-soil system, *Adv. Atmos. Sci.*, **23**, 127-140

### **Refereed Publications – 2005:**

Gao, F., C.B. Schaaf, A.H. Strahler, A. Roesch, W. Lucht, and R.E. Dickinson, 2005, MODIS bidirectional reflectance distribution function and albedo Climate Modeling Grid products and the variability of albedo for major global vegetation types, *JGR*, **110**, D01104l, doi:10.1029/2004-JD005190

Hall, D.K., M. Kaminski, D.J. Cavalieri, R.E. Dickinson, M. Marquis, G. A. Riggs, D.A. Robinson, M. Van Woert, and R.E. Wolfe, 2005: Earth Observing System Snow and Ice Products for Observation and Modeling, *Eos Trans, AGU*, **86**(7), 67, 10.1029/2005EO070004

Jin, M., R.E. Dickinson, and D.-L. Zhang, 2005: The Footprint of Urban Areas on Global Climate as Characterized by MODIS, *J. Clim.*, **18**, 1551-1565

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