

YONGKANG XUE

Department of Geography

Department of Atmospheric and Oceanic Sciences

1255 Bunche Hall, University of California

Los Angeles, CA 90095-1524

email: yxue@geog.ucla.edu

<https://yxue.scholar.ss.ucla.edu/>

EDUCATION:

(1987) Ph.D. - (Meteorology) University of Utah, U.S.A.

Dissertation: *Investigation of biogeophysical feedbacks on African climate using a two-dimensional model.* (September 1983 to 1987)

(1981) M.Sc. - (Atmospheric Physics) The Graduate School of the University of Science and Technology of China, Chinese Academy of Sciences, China.

Thesis: *Application of Monte Carlo methods to remotely sensed humidity profiles by atmospheric microwave emission.* (October 1978- November 1981)

PROFESSIONAL EXPERIENCE:

(2024-present) Distinguished Research Professor, Department of Geography, Department of Atmospheric Sciences, University of California, Los Angeles.

(2023-2024) Distinguished Professor, Department of Geography, Department of Atmospheric Sciences, University of California, Los Angeles.

(2019-pres) Affiliate Member of the UCLA Natural Hazards Risk and Resiliency Research Center

(2011-pres) Affiliate Member of the UCLA Institute of the Environment and Sustainability

(2006-pres) Affiliate Member of Joint Institute UCLA Regional Earth System Science and Engineering (JIFRESSE)

(2003-pres) Professor, Department of Geography, UCLA

(2003-pres) Professor, Department of Atmospheric Sciences, UCLA

(2000-2003) Associate Professor, Department of Atmospheric Sciences, UCLA

(1999-2003) Associate Professor, Department of Geography, UCLA

(1997-2000) Associate Research Scientist, Department of Geography, University of Maryland.

(1993-1997) Research Scientist, Center for Ocean-Land-Atmosphere Studies.

(1991-1993) Assistant Research Scientist, Department of Meteorology, University of Maryland.

(1988-1991) Research Associate, Department of Meteorology, University of Maryland.

(1983-1988) Research Assistant, Department of Meteorology, University of Utah.

(1981-1983) Research Associate, Institute of Atmospheric Physics, Chinese Academy of Sciences.

HONORS AND AWARDS:

2017 American Meteorological Society Fellow

2014 Certificate of Achievement in leading NSF-Funded Research Project on Climate Change in East Asia and Funding and Supporting the Chinese-American Oceanic and Atmospheric

Association, Southern California Chapter.
1988 National Research Council Research Associateship Award

PROFESSIONAL ASSOCIATION

Member, American Meteorological Society
Member, American Geophysical Union
Member, American Association for the Advancement of Science
Member, Chinese American Oceanic and Atmospheric Association
Member, American Association of Geography
Member, European Geophysical Society
Member, Sigma Xi Society

TEACHING

Graduate Courses (regularly taught)

Introduction to Biophysical Modeling, Regional Climate and Terrestrial Surface Processes

Undergraduate Courses (regularly taught)

Human Impact on Biophysical Environment, Applied Climatology, Remote Sensing Digital Image Processing

Other Courses/Lectures

Remote Sensing & GIS, History and Structure of Modern Geography, Physical Geography

ADVISING

Major Advisor or co-advisor for *Ph.Ds.*: C. Adam Schlosser (1995); Dev Niyogi (2006), Fernando De Sales (2006), Guoqiong Song (9/24/2013), Sigrid Rian, Catalina Oaida (12/05/2014), Huilin Huang (Fall., 2017-Winter 2021), Khalil Ganem (Fall 2020-) Zhiqiong Cao (Fall 2021-);

Major Advisor for *Masters*: Daniel Kahan, Paul Levine, Fernando De Sales, Qian Fu, Guoqiong Song, Jin Gao (7/2011), Lisa Calhoon (6/19/13), Alisha Chandran (March 2016-June 2017), Huiling Huang (September 2015-Spring 2017); Wufan Zhang (Fall 2018-Spring 2020); Zhiqiong Cao (2020-2021).

Advisors/Hosts For Visiting Scholars : Aaron Boone (France, 2007-2010), Isebeel, Poccard (2007-2010), Jinjun Ji, (2004), Shufen Sun (2005), Jimming Fang (2007 Oct -2008 Jan), Yang Yang (2008 September -2009 September), Tomonori Sato (2010 march-June), Zhenxin Liu (September 2010-2012. Ph.D. June 2013), Jiangbo Gao (2010-2012. Ph.D. June 2012), Ye Liu (2013-2014, Ph.D. 2015), Bo Qiu (2014-2016), Yang Wang (October 2014-October, 2016), Yang Chen (October 2014-September 2015), Xuexia Zhang (September 2014-September 2015), Aihong Fu (January 2015 -), Wenkai Li (November 2015, April – September 2016); Jiping Que (Sept., 2015-Sept., 2017), Zheng Xian (jan. 2017-2019), Zhanmei Yang (2019-2020), Qiuyu Chen (2019-2020)

Supervisor for Postdoctoral Researchers: Weiyong Yang (1992), Mira Ruml (1997-1998), Renhe Zhang (1998-1999), Xiwu Zhang (1998-1999), Yan Jun Jiao (1998-1999), Shufen Sun (1998-1999, 2005), Lan Yi (1999-2001), Weiping Li (1999-2002), Isebelle Poccard (2002-2004), Hyun-Suk Kang (Aug. 2003-July. 2006), Huiping Deng (2004-April 2007), Fernando De Sales (2006-2008), Zheng-Qiu Zhang (April 2007-July 2010, May 2013-May 2014), Suosuo Li (Feb. 2012-2013), Qian Li (October 2014-February 2015; July 2015-July-2016), Jiwoo Lee

(February 2015–February 2016), Ismaila Diallo (May 2015–2021), Nagaraju Chilukoti (April, 2016–Feb. 2018), Ye liu (March, 2016–2020), Haraprasad Nayak (July 2021–)

INTERNATIONAL ACTIVITIES

- Chair (2018 - present) GEWEX/GASS Initiative “Impact of initialized land temperature and snowpack on subseasonal to seasonal prediction (LS4P)” <https://ls4p.geog.ucla.edu/>
- Panel Member (2018 - present), the GEWEX/GASS project (Global Energy and Water Exchanges Global Atmospheric System Study)
- Principle organizer (2006–2016), West African Monsoon Modeling and Evaluation (WAMME), <https://wamme.geog.ucla.edu/>
- Member (2013–2015), the Asia-Australia Monsoon Panel (AAMP)/CLIVER

SELECTED PROFESSIONAL SERVICES

1). Editorship

Editor, *Journal of Meteorological Research*

Associate Editor, *Advance in Atmospheric Sciences; ACTA Meteorologica Sinica* (till 2013).

Guest Editor, *Climate Dynamics*

2) Conference Organization

Organizer, short course "Land Surface/ Climate Interactions", AMS Annual Meeting (2000, 2002, 2006)

Convener and Chair, "Land/Atmosphere Interactions" session, AMS Annual Meeting (in even years since 2000)

Chairs of Conference sessions of 2003 IUGG;

Co-Organizer, the Mississippi Hydrological and Climatology Conference (2002).

Organizer, "Monsoon climate" session, AAG annual meeting (2004)

Co-Chair, International Workshop on the Air-Land Interaction in Arid and Semi-Arid Areas and Its Impact on Climate (Dunhuang City, China, 2002)

Co-Chair, Workshop on Weather and Climate over Tibetan Plateau and Adjacent Regions and their Global Implication (Chengdu, China 14–17 August 2011).

Member of the International Program Committee, International Conference on Environmental Modelling and Simulation (EMS 2006), St. Thomas, Virgin Islands.

Member, Scientific Committee for the International Workshop on the Energy and Water Cycle over the Tibetan Plateau (Lhasa, China, 2006)

Member, Scientific Committee for Second International AMMA (African Multidisciplinary Monsoon Analysis) Conference (Karlsruhe, Germany, 2007)

Organizer, Hydroclimate of the West Africa and South America Monsoons, AGU Assembly (2007)

Organizer, First West African Monsoon Modeling and Evaluation (WAMME) Workshop, AMS Annual meeting (2008)

Member of the International Program Committee (IPC), the IASTED (International Association of Science and Technology for Development) International Conference on Environmental Modelling and Simulation (2009, 2010, 2011)

Member of the Program Committee, the *International Symposium on the Frontier of Atmospheric Sciences*. August 11–14, 2011 in Beijing

Organizer, "West African Monsoon and its Modeling", AGU Fall Meeting, 2013

Organizer, "Second West African Monsoon Modeling and Evaluation (WAMME) Workshop", AGU Fall Meeting, 2013

Organizer, "Intraseasonal-to-Decadal Prediction and Predictability Associated with Terrestrial Surface Processes and Drought", AGU Fall Meeting, 2014.

Organizer, "Intraseasonal to decadal climate variability, prediction, and predictability associated with land-atmosphere interactions, AGU Fall Meeting, 2025

Co-Chair, "International Workshop on Land Surface Multi-spheres Processes of Tibetan Plateau and their Environmental and Climate Effects Assessment (Xining, China, August 8-10, 2016).

Primary convener, "Grand Challenges in Earth System Modeling: Decadal Climate Variability and Change, Prediction, and Its Applications", AGU Fall Meeting, 2016

Primary convener, "Understanding and predictions of sub-seasonal to seasonal land-induced forcing and atmosphere interactions on droughts/floods and heatwaves", AGU Fall Meeting, 2019

Organizer, International Workshop of GEWEX/GASS LS4P Initiative and TPEMIP (2018, 2019, 2000)

Organizer, GEWEX/LS4P Phase II International Workshop (2022, 2023)

PEER REVIEWED PUBLICATIONS:

- 1Xue, Y., R. Huang, and X. Zhou, 1982: Application of Monte Carlo method to remote sensing humidity profile by atmospheric microwave emission. *Scientia Sinica (Series B)*, **XXV (6)**, 646-657.
- 2Xue, Y., R. Huang, and X. Zhou, 1983: Inversion method of determining vertical profile of water vapor using ground-based sensing. *Scientia Atmospherica Sinica*, **7 (2)**, 115-124. (in Chinese).
- 3Xue, Y., R. Huang, and X. Zhou, 1983: The principle and numerical tests of remote sounding of water vapor profiles with statistics method. *China Space Science and Technology*, **3**, 12-16, (in Chinese).
- 4Xue, Y. and H. Lin, 1984: A simultaneous numerical solution for ground-based microwave remote sensing of temperature and water vapor profiles in 5 mm oxygen and 1.348 cm water vapor bands. *ACTA Meteorologia Sinica*. **42 (4)**, 423-430, (in Chinese).
- 5Wei, C., Y. Xue, X. Zhu, and S. Zou, 1984: Determination of atmospheric precipitate water and humidity profiles by a ground-based 1.35 cm radiometer. *Adv. in Atmos Sci.*, **1 (1)**, 119-127.
- 6Liou, K.N. and Y. Xue, 1988: Exploration of the remote sounding of infrared cooling rates due to water vapor. *Meteor. Atmos. Phys.*, **38**, 131-139.
- 7Xue, Y., K.N. Liou, and A. Kasahara, 1990: Investigation of the biogeophysical feedback on the African climate using a two-dimensional model. *J. Climate*, **3**, 337-352. <https://doi.org/10.1175/1520-0442>
- 8Xue, Y., 1991: A two-dimensional coupled Biosphere-Atmosphere model and its application. *Adv. in Atmos. Sci.*, **8**, 447-458. DOI: <https://doi.org/10.1007/BF02919267>
- 9Xue, Y., P. J. Sellers, J.L. Kinter III, and J. Shukla, 1991: A simplified biosphere model for global climate studies. *J. Climate*, **4**, 345-364.
- 10Xue, Y., 1993: The influence and mechanisms of biosphere feedback on African climate. In Macroscale modeling of the hydrosphere, (ed. Wilkinson, W.B.), International Association of Hydrological Sciences (IAHS), publication No. 214, 119-124.
- 11Xue, Y. and P. J. Sellers, 1993: A brief review of Simple Biosphere Model (SiB). In Integrating

- Geographic Information Systems and Environmental Modeling, (eds. Goodchild, M.F., Parks, B.O., Steyaert, L.T.), Oxford Univ. Press, 290-295.
- 12Xue, Y. and J. Shukla, 1993: The influence of land surface properties on Sahel climate. **Part I** Desertification. *J. Climate*, **6**, 2232-2245.
- 13Fennessy, M. J., J.L. Kinter III, B. Kirtman, L. Marx, S. Nigam, E. Schneider, J. Shukla, D. Straus, A. Vernekar, Y. Xue, and J. Zhou, 1994: The simulated Indian monsoon: A GCM sensitivity study. *J. Climate*, **6**, 33-43.
- 14Robock, A., K.V. Vinnikov, C.A. Schlosser, N.A. Speranskaya, and Y. Xue, 1995: Use of midlatitude soil moisture and meteorological observations to validate soil moisture simulations with biosphere and bucket models. *J. Climate*, **8**, 15-35.
- 15Chen F., K. Mitchell, J. Schaake, Y. Xue, H.-L. Pan, V. Koren, Q. Duan, M. Ek, and A. Betts, 1996: Modeling of land-surface evaporation by four schemes and comparison with FIFE observations (PILPS). *J. Geophys. Res.*, **101**, D3, 7251-7268.
- 16Mahfouf, J.-F., C. Ciret, A. Duchame, P. Irannejad, J. Noilhan, Y. Shao, P. Thornton, Y. Xue, and Z.L. Yang, 1996: Analysis of results from PILPS-RICE workshop, Part III: Transpiration, *Global & Planetary Change*, **13**, 73-88.
- 17Wetzel, P.J., X. Liang, P. Irannejad, A. Boone, J. Nolihan, Y. Shao, C. Skely, Y. Xue, and Z.-L. Yang, 1996: Modeling vadose zone liquid water fluxes: infiltration, runoff, drainage, interflow. *Global & Planetary Change*, **13**, 57-72.
- 18Xue, Y., 1996: The Impact of desertification in the Mongolian and the Inner Mongolian grassland on the regional climate. *J. Climate*, **9**, 2173-2189. doi: <http://dx.doi.org/10.1175/1520-0442>
- 19Xue, Y., H.G. Bastable, P. A. Dirmeyer, and P.J. Sellers, 1996a: Sensitivity of simulated surface fluxes to changes in land surface parameterization -- a study using ABRACOS data. *J. Appl. Meteor.*, **35**, 386-400.
- 20Xue, Y., M.J. Fennessy, and P.J. Sellers, 1996b: Impact of vegetation properties on U.S. summer weather prediction. *J. Geophys. Res.*, **101**, D3, 7419-7430.
- 21Xue, Y. and J. Shukla, 1996: The influence of land surface properties on Sahel climate. **Part I** Afforestation. *J. Climate*, **9**, 3260-3275.
- 22Xue, Y., F. J. Zeng, and C.A. Schlosser, 1996c: SSiB and its sensitivity to soil properties --- a case study using HAPEX-Mobilhy data. *Global & Planetary Change*, **13**, 183-194.
- 23Chen, T.H. and Collaborators (including Y. Xue), 1997: Cabauw experimental results from the project for intercomparison of land surface parameterization schemes. *J. Climate*, **10**, 1194-1215.
- 24Fennessy, M.J. and Y. Xue 1997: Impact of vegetation map on GCM seasonal simulations over the United States. *Ecological Application*, **7**, 22-33.
- 25Schlosser, C.A., A. Robock, K.Y. Vinnikov, N.A. Speranskaya, and Y. Xue, 1997: 18-year land-surface hydrology model simulations for a midlatitude grassland catchment in Valdai, Russia. *Mon. Wea. Rev.*, **125**, 3279-3296.
- 26Xue, Y., 1997: Biosphere feedback on regional climate in tropical north Africa. *Quart. J. Roy. Met. Soc.*, **123**, B, 1483-1515.
- 27Xue., Y., J. Elbers, F.J. Zeng, and A.J. Dolman, 1997: GCM parameterization for Sahelian land surface processes, 289-297. In HAPEX-Sahel West Central Supersite: Methods, Measurements and Selected Results (eds. P. Kabat, S. Prince, L. Prihodko). Rep 130.HM/07.97. The Winand Staring Center for Integrated land, soil and water research. The Netherlands.

- 28Xue, Y., P.J. Sellers, F.J. Zeng, and C.A. Schlosser, 1997: Comments on "Use of midlatitude soil moisture and meteorological observations to validate soil moisture simulations with biosphere and bucket models". *J. Climate*, **10**, 374-376. [https://doi.org/10.1175/1520-0442\(1995\)008<0015:UOMSMA>2.0.CO;2](https://doi.org/10.1175/1520-0442(1995)008<0015:UOMSMA>2.0.CO;2)
- 29Liang S., and Collaborators (including Y. Xue), 1998: The project for intercomparison of land-surface parameterization schemes (PILPS) phase-2(c) Red-Arkansas River basin experiment: 2. Spatial and temporal analysis of energy fluxes. *Global & Planetary Change*, **19**, 137-159.
- 30Lohmann, D., and Collaborators (including Y. Xue), 1998: The project for intercomparison of land-surface parameterization schemes (PILPS) phase-2(c) Red-Arkansas River basin experiment: 3. Spatial and temporal analysis of water fluxes. *Global & Planetary Change*, **19**, 161-179.
- 30Polcher J., B. McAvaney, P. Viterbo, M.-A. Gaertner, A. Hahmann, J.-F. Mahfouf, J. Noilhan, T. Phillips, A. pitman, C.A. Schlosser, J.-P. Schulz, B. Timbal, D. Verseghy, Y. Xue, 1998: A proposal for a general interface between land-surface schemes and general circulation models. *Global & Planetary Change*, **19**, 261-276.
- 32Schulz, J.-P., L. Dumenil, J. Polcher, C.A. Schlosser, and Y. Xue, 1998: Land surface energy and moisture fluxes: comparing three models, *J. Appl. meteor.*, **37**, 288-307.
- 33Wood, E.F., and Collaborators (including Y. Xue), 1998: The project for intercomparison of land-surface parameterizations schemes (PILPS) phase-2(c) Red-Arkansas River basin experiment: 1. Experiment description and summary intercomparisons. *Global & Planetary Change*, **19**, 115-135.
- 34Xue, Y. and J. Shukla, 1998: model simulation of the influence of global SST anomalies on the Sahel rainfall. *Mon. Wea. Rev.*, **126**, 2782-2792.
- 35Xue, Y., F.J. Zeng, Y. Ji, K. Mitchell, and Z. Janjic, 1998: The impact of land surface processes and reanalysis data on the U.S. weather prediction. Proceedings of the First WCRP International Conference on Reanalyses, WMO/TD-NO. 876, 243-246.
- 36Xue, Y., F. J. Zeng, C.A. Schlosser, and S. Allen, 1998: A simplified Simple Biosphere Model (SSiB) and its application to land-atmosphere interactions. *Chinese Journal of Atmospheric Sciences*. **22**, 468-480.
- 37Pitman, A. J., A. Henderson-Sellers, C. E. Desborough, Z.-L. Yang, F. Abramopoulos, A. Boone, R. E. Dickinson, N. Gedney, R. Koster, E.Kowalczyk, D. Lettenmaier, X. Liang, J.-F. Mahfouf, J. Noilhan, J. Polcher, W. Qu, A. Robock, C. Rosenzweig, C. A. Schlosser, A. B. Shmakin, J. Smith, M. Suarez, D. Verseghy, P. Wetzel, E. Wood, Y. Xue, 1999: Key results and implications from phase 1(c) of the Project for Intercomparison of Land-surface Parameterization Schemes *Climate Dynamics*, **15** , 673-684.
- 38Sun, S.F., J.M. Jin, Y. Xue, 1999: A simplified layer snow model for global and regional studies. *J. Geophys. Res.* **104**, D16, 19587-19597.
- 39Weng, H.Y., K.M. Lau, and Y.K. Xue, 1999: Multi-scale summer rainfall variability over China and its long-term link to global sea surface temperature variability. *J. Meteor. Soc. Of Japan*, **77**, 845-857.
- 41Xue, Y., H.H. Juang, S.Y. Hong, M. Kanamitsu, and M. Hansen, 1999: Asian monsoon and vegetation interactions. GEWEX newsletter, 9, 8-9.
- 42Xue, Y., 1999: Deforestation and Climate Effects. Proceedings of Forum "Forests and Atmosphere - Water - Soil", NNA-Reports, 12, 122-124.

- 43Schlosser C. A., and Collaborators (including Y. Xue), 2000: Simulations of a boreal grassland hydrology at Valdai, Russia: PILPS Phase 2(d). *Mon. Wea. Rev.*, **128**, 301-321.
- 44Clark, D.B., Yongkang Xue, R. Harding, and P. J. Valdes, 2001: Modeling the impact of land surface degradation on the climate of tropical North Africa. *J. Climate*, **14**, 1809-1822.
- 45Giorgi F, Hewitson B., Christensen J, Hulme, M., Storch, H, Whetton P , Jones R, Mearns L, Fu C, Arritt R, Bates B, Benestad R, Boer G, Buishand A, Castro M, Chen D, Cramer W, Crane R, Crossly J, Dehn M, Dethloff K, Dippner J, Emori S, Francisco R, Fyfe J, Gerstengarbe F, Gutowski W, Gyalistras D, Hanssen-Bauer I, Hantel M, Hassell D, Heimann D, Jack C, Jacobbeit J, Kato H, Katz R, Kauker F, Knutson T, Lal M, Landsea C, Laprise R, Leung L, Lynch A, May W, McGregor J, Miller N, Murphy J, Ribalaygua J, Rinke A, Rummukainen M, Semazzi F, Walsh K, Werner P, Widmann M, Wilby R, Wild M, Xue Y (2001), Chapter 10: Regional Climate Information-Evaluation and Projections, 583- 638 in Climate Change 2001: The Scientific Basis. [Houghton, J.T. et al. (eds)]. Cambridge University Press, 881pp
- 46Slater, A.G., C. A. Schlosser, C. E. Desborough, A.J. Pitman, A. Henderson-Sellers, A. Robock, K. Ya. Vinnikov, K. Mitchell, A. Boone, H. Braden, F. Chen, P. M. Cox, P. de Rosnay, R. E. Dickinson, Y.-J. Dai, Q. Duan, J. Entin, P. Etchevers, N. Gedney, Ye. M. Gusev, F. Habets, J. Kim, V. Koren, E. A. Kowalczyk, O. N. Nasonova, J. Noilhan, S. Schaake, A. B. Shmakin, T. G. Smirnova, D. Verseghy, P. Wetzel, Y. Xue, Z.-L. Yang, and Q. Zeng: 2001: The representation of snow in land-surface schemes; results from PILPS 2(d). *J. Hydrometeorology*, **2**, 7-25.
- 47Sun S. and Xue Yongkang, 2001: Implementing a new snow scheme in Simplified Simple Biosphere Model (SSiB), *Advance in Atmospheric Sciences*, **18**, 335-354.
- 48Xue, Y., F. J. Zeng, K. Mitchell, Z. Janjic, and E. Rogers, 2001: The Impact of Land Surface Processes on Simulations of the U.S. Hydrological Cycle: A Case Study of the 1993 Flood Using the SSiB Land Surface Model in the NCEP Eta Regional Model. *Mon. Wea. Rev.* , **129**, 2833-2860.
- 49Chou, S. C., C. A. S. Tanajura, Yongkang Xue, C. A. Nobre, 2002: Simulation of the coupled Eta/SSiB model over South America. *J. Geophys. Res.* **107**, D20, doi:10.1029/2000JD000270.
- 50Goward S.N., Yongkang Xue, K. Czaykowski, 2002: Evaluating Land Surface Moisture Conditions from Remotely Sensed Temperature/Vegetation Index Measurement: an exploration employing the Simplified Simple Biosphere Model. *Remote Sensing of Environment*. **79**, 225-242.
- 51Lambin, E. F., P.S. Chasek, T.E. Downing, C. Kerven, A. Kleidon, R. Leemans, M. Lüdeke, S.D. Prince, Y. Xue, 2002: The interplay between international and local processes affecting desertification in "Global Desertification: Do Humans cause deserts?" Reynolds, J.F., and D.M. Stafford Smith, eds. Dahlem University Press, Berlin, P 387-401.
- 52Niyogi, D. S., Yongkang Xue, and S. Raman, 2002: Hydrological feedback in land-atmosphere coupling: Comparison of a tropical and a midlatitudinal regime. *J. Hydrometeorology*. **3**, 39-56.
- 53Xue, Y. and M. D. Fennessy, 2002: Under what conditions does land cover change impact regional climate in "Global Desertification: Do Humans cause deserts?" Reynolds, J.F., and D.M. Stafford Smith, eds. Dahlem University Press, Berlin, P 59-74

- 54Luo, L., A. Robock, K. Y. Vinnikov, C. A. Schlosser, A. G. Slater, A. Boone, H. Braden, P. Cox, P. de Rosnay, R. E. Dickinson, Y.-J. Dai, Q. Duan, P. Etchevers, A. Henderson-Sellers, N. Gedney, Y. M. Gusev, F. Habets, J. Kim, E. Kowalczyk, K. Mitchell, O. N. Nasonova, J. Noilhan, A. J. Pitman, J. Schaake, A. B. Shmakin, T. G. Smirnova, P. Wetzel, Yongkang Xue, Z.-L. Yang, and Q.-C. Zeng, 2003: Effects of frozen soil on soil temperature, spring infiltration, and runoff: Results from the PILPS 2(d) experiment at Valdai, Russia. *J. Hydrometeorology*, **4**, 334-351.
- 55Marland G., R. A. Pielke Sr., M. Apps, R. Avissar, R. A. Betts, K.J. Davis, P.C. Frumhoff, S.T. Jackson, L. Joyce, P. Kauppi, J., Katzenberger, K.G. MacDicken, R. Neilson, J. O. Niles, D. S. Niyogi, R. J. Norby, N. Pena, N. Sampson, Yongkang Xue, 2003: The climatic impacts of land surface change and carbon management, and the implications for climate-change mitigation policy. *Climate Policy*, **3**, 149-157.
- 56Bowling, Laura C.; Lettenmaier, Dennis P.; Nijssen, Bart; Graham, L. Phil; Clark, Douglas B; El Maayar, Mustapha; Essery, Richard; Goers, Sven; Gusev, Yeugeniy M.; Habets, Florence; van den Hurk, Bart\; Jin, Jiming; Kahan, Daniel; Lohmann, Dag; Ma, Xieyao; Mahanama, Sarith; Mocko, David; Nasonova, Olga; Niu, Guo-Yue; Samuelsson, Patrick; Shmakin, Andrey B.; Takata, Kumiko; Verseghy, Diana; Viterbo, Pedro; Xia, Youlong; Xue, Yongkang; Yang, Zong-Lian, 2003, Simulation of high latitude hydrological processes in the Torne_Kalix basin: PILPS phase 2(e). 1: Experiment description and summary inter-comparisons. *Global & Planetary Change*, **38**, 1-30.
- 57Nijssen, Bart; Bowling, Laura C.; Lettenmaier, Dennis P.; Clark, Douglas B.; El Maayar, Mustapha; Essery, Richard; Goers, Sven; Gusev, Yeugeniy M.; Habets, Florence; van den Hurk, Bart; Jin, Jiming; Kahan, Daniel; Lohmann, Dag; Ma, Xieyao; Mahanama, Sarith; Mocko, David; Nasonova, Olga; Niu, Guo-Yue; Samuelsson, Patrick; Shmakin, Andrey B.; Takata, Kumiko; Verseghy, Diana; Viterbo, Pedro; Xia, Youlang; Xue, Yongkang; Yang, Zong-Liang, 2003, Simulation of high latitude hydrological processes in the Torne_Kalix basin: PILPS phase 2(e). 2: Comparison of model results with observations. *Global & Planetary Change*, **38**, 31-53.
- 58Niyogi D., R. A. Pielke Sr., K. Alapaty, J. Eastman, T. Holt, U. C. Mohanty, S. Raman, T. K. Roy, Y. K. Xue, 2003, Challenges of representing land surface processes in weather and climate models over Tropics: Examples over the Indian subcontinent, in Weather and Climate Modeling, Eds. S.V. Singh, Swati Basu & T.N.Krishnamurti, New Age International (P) Limited, Publishers, New Delhi, pp. 132 - 145.
- 59Xue, Yongkang, S. Sun, D. Kahan, Y. Jiao, 2003: The impact of parameterizations in snow physics and interface processes on the simulation of snow cover and runoff at several cold region sites. *J. Geophy. Res.* **108**, D22, 8859, doi: 10.1029/2002JD003174. PP20.
- 60Zhang, D.-L., W.-Z. Zheng, and Yong-Kang Xue, 2003: A numerical study of early summer regional climate and weather over LSA-East: Part I: Model description and verification. *Mon. Wea. Rev.*, **131**, 1895-1909.
- 61Zhan, X., Yongkang Xue, G. J. Collatz, 2003: An analytical approach for estimating CO₂ and heat fluxes over the Amazonian region. *Ecological Modeling*. **162**, 97-117.
- 62Koster, R. D., P. A. Dirmeyer, Z. Guo, G. Bonan, E. Chan, P. Cox, C. T., Gordon, S. Kanae, E. Kowalczyk, D. Lawrence, P. Liu, C.-H. Lu, S. Malyshev, B. McAvaney, K. Mitchell, D. Mocko, T. Oki, K.. Oleson, A. Pitman, Y. C. Sud, C. M. Taylor, D. Verseghy,

- R.Vasic, Y. Xue, T. Yamada, 2004: Regions of strong coupling between soil moisture and precipitation. *Science*, **305**, 1138-1140.
- 63Niyogi, D., H.-I. Chang, V. K. Saxena, C. J. Crabbe, T. Holt, K. Alapaty, F. Booker, F. Chen, D.J. Kenneth, B. Holben T. Matsui, T. Meyers, W. C. Oechel, R. A. Pielke, Sr, R. Wells, K. Wilson, Yongkang Xue, 2004: Direct Observations of The Effects of aerosol loading on CO₂ exchanges over different landscapes. *Geophys. Res. Let.*, **31**, doi:10.1029/2004GL020915
- 64Sun, L. and Y. Xue, 2004: Validation of SSiB model over grassland with CHeRES field experiment data in 2001. *Advance in Atmospheric Sciences*. **21**, 547-556.
- 65Xue, Y., R.W.A. Hutjes, R.J. Harding, M. Claussen, S. Prince, E. F. Lambin, S. J. Allen, P. Dirmeyer, T. Oki, 2004: The Sahelian Climate (Chapter A5) in Vegetation, Water, Humans and the Climate, Eds, P. Kabat, M. Claussen, P. A. Dirmeyer, J. H. Gash, L. B. Deguenni, M. Meybeck, R. A. Pielke, sr, C. J. Vorosmarty, R. W. A. Hutjes, and S. Lutkemeier. Springer-Verlag, Berlin Heidelberg, P59-77. PP566. 978-3-642-18948-7. 68-93
- 66Xue, Yongkang, H.-M. H. Juang, W. Li, S. Prince, R. DeFries, Y. Jiao, R. Vasic, 2004: Role of land surface processes in monsoon development: East Asia and West Africa. *J. Geophys. Res.*, **109**, D03105, doi:10.1029/2003JD003556. PP24.
- 67Xue Y., H.-M. Juang, W.-P. Li, S. D. Prince, R. DeFries, Y. Jiao, 2004: Land-surface effects on monsoon development. *Bull. Amer. Meteor. Soc.*, **85**. 347-348.
- 68Xue, Y., W.-P. Li, F. de Sales, C. R. Mechoso, H.-M. H. Juang, C. Nobre, 2004: Land surface processes and monsoon. Proceedings CD-ROM of the 6th International Study Conference of GEWEX in Asia and GAME, December 3-5, 2004, Kyoto Japan, GAME CD-ROM Publication NO. 11, T1YX30Jul04034458.
- 69Li W.-P. and Xue Yongkang, 2005: Numerical Simulation of the impact of vegetation index on the interannual variation of summer precipitation in the Yellow River Basin. *Adv. in Atmos. Sci.*, **22**, 865-876.
- 70Xue, Y., 2005: Land surface processes and monsoon. GEWEX Newsletter. February, 5, 6, 20.
- 71Xue, Yongkang, S. Sun, J.-M. Lau, J. Ji, I. Poccard, H.-S. Kang, R. Zhang, G. Wu, J. Zhang, J. Schaake, and Y. Jiao, 2005, Multiscale variability of the river runoff system in China and its link to precipitation and sea surface temperature. *J. Hydrometeorology*, **6**, 550-570.
- 72Xue, Y. and M. Yanai, 2005: Climate of South Asia in Encyclopedia of World Climatology, Ed. J. Oliver. Springer, Netherlands. P115-120. ISBN ISBN 978-1-4020-3264-6
- 73Alpert, P., D. Niyogi, R.A. Pielke Sr., J.L. Eastman, Y.K. Xue, and S. Raman, 2006: Evidence for carbon dioxide and moisture synergies from the leaf cell up to global scales: Implications to human-caused climate change. *Global and Planetary Change*, **54**, 202-208.
- 74de Goncalves, L. G. G., W. J. Shuttleworth, S. C. Chou, Y. Xue, P. R. Houser, D. L. Toll, J. Marengo, and M. Rodell, 2006: Impact of different initial soil moisture fields on Eta model weather forecasts for South America, *J. Geophys. Res.*, **111**, D17102, doi:10.1029/2005JD006309.
- 75De Sales, F., and Y. Xue, 2006, Investigation of seasonal prediction of the South American regional climate using the nested model system, *J. Geophys. Res.*, **111**, D20107, doi:10.1029/2005JD006989.

- 76Gu, Y., K. N. Liou, Y. Xue, C. R. Mechoso, W. Li, and Y. Luo, 2006, Climatic effects of different aerosol types in China simulated by the UCLA general circulation model, *J. Geophys. Res.*, 111, D15201, doi:10.1029/2005JD006312.
- 77Guo, Z., P.A. Dirmeyer, R. Koster, Y. C. Sud, Gordon Bonan, Keith W. Oleson, Edmond Chan, Diana Verseghy, Peter Cox, C. T. Gordon, J. L. McGregor, Shinjiro Kanae, Eva Kowalczyk, David Lawrence, Ping Liu, David Mocko, Cheng-Hsuan Lu, Ken Mitchell, Sergey Malyshev, Bryant McAvaney, Taikan Oki, Tomohito Yamada, Andrew Pitman, Christopher M. Taylor, Ratko Vasic, Yongkang Xue, 2006: GLACE: The global land-atmosphere coupling experiment. 2. Analysis. *J. of Hydrometeorology*, **7**, 611-625.
- 78Kahan, D., Yongkang Xue, and S. Allen, 2006: The impact of vegetation/soil parameters in simulations of surface energy and water balance in the semi-arid Sahel area: a case study using SEBEX and HAPEX-Sahel data. *J. Hydrology*, **320**, issues 1-2, 238-259.
- 79Koster, R., Y. C. Sud, Zhichang Guo, Paul A. Dirmeyer, Gordon Bonan, Keith W. Oleson, Edmond Chan, Diana Verseghy, Peter Cox, Harvey Davies, Eva Kowalczyk, C. T. Gordon, Shinjiro Kanae, David Lawrence, Ping Liu, David Mocko, Cheng-Hsuan Lu, Ken Mitchell, Sergey Malyshev, Bryant McAvaney, Taikan Oki, Tomohito Yamada, Andrew Pitman, Christopher M. Taylor, Ratko Vasic, Yongkang Xue, 2006: GLACE: The global land-atmosphere coupling experiment. I. Overview. *J. of Hydrometeorology*. **7**, 590-610.
- 80Niyogi, D., and Yongkang Xue, 2006: Soil moisture regulates the biological response of elevated atmospheric CO₂ concentrations in a coupled atmosphere biosphere model. *Global & Planetary Change*. **54**, 94-108.
- (number missing) K Shah, K., S Lozano-Fuentes, S Rian, Y Xue, C Taylor, 2006: A distribution model of Anopheles gambiae sensu stricto molecular forms in Africa, *American Journal of Tropical Medicine and Hygiene*, **75** (5), 267-267
- 81Xue, Y., 2006: Interactions and feedbacks between climate and dryland vegetation. In *Dryland Ecohydrology*. P. D'Odorico and A. Porporato, eds., 85-105, Springer. New York. ISBN 1-4020-4261-2.
- 82Xue, Yongkang, F. De Sales, W. Li, C. R. Mechoso, C. Nobre, and H.-M. H. Juang, 2006: Role of land surface processes in South American monsoon development. *J. Climate*. **19**, 741-762.
- 83Kang H.-S., Y. Xue, G. J. Collatz, 2007: Impact Assessment of Satellite-Derived Leaf Area Index Datasets Using a General Circulation Model. *J. Climate*, **20**, 993-1015.
- 84Li, W.-P, Y. Xue, I. Poccard, 2007: Numerical investigation of the impact of vegetation indices on the variability of West African summer monsoon. *Journal of Meteorological Society of Japan*, **85A**, 363-383.
- 85Zhang X., S. Sun, and Y. Xue: 2007: Development of Frozen soil model for climate study. *J. Hydrometeorology*. **8**, 690-701.
- 86Xue, Y., R. Vasic, Z. Janjic, F. Mesinger, and K. E. Mitchell, 2007: Assessment of dynamic downscaling of the continental U.S. regional climate using the Eta/SSiB Regional Climate Model. *J. Climate*. **20**, 4172–4193
- 87Zhou, WY, PW Guo, T. Luo, KN Liou Y. Gu, YK Xue, 2008: A study on the radiative transfer parameterization scheme within canopy in land surface process model, *Acta Meteorologica Sinica*, **66**, 359-370.
- 88Boone, A., P. de Rosnay, G. Basalmo, A. Beljaars, F. Chopin, B. Decharme, C. Delire, A. Ducharne, S. Gascoin, F. Guichard, Y. Gusev, P. Harris, L. Jarlan, L. Kergoat, E. Mougin,

- O. Nasonova, A. Norgaard, T. Orgeval, C. Ottlé, I. Poccard-Leclercq, J. Polcher, I. Sandholt, S. Saux-Picart, C. Taylor, and Y. Xue, 2009: The AMMA Land Surface Model Intercomparison Project (ALMIP). *BAMS*, **90**, 1865–1880. DOI: 10.1175/2009BAMS2786.1
- 89Chen W., L. Wang, Y. Xue, and S. Sun, 2009: Variabilities of the Spring River Runoff System in eastern China and their Relations to Precipitation and Sea Surface Temperature, *Int. J. climatology*. **29**, **10**, 1381-1394. Published online 3 December 2008, in Wiley InterScience (www.interscience.wiley.com) DOI: 10.1002/joc.1785.
- 90Kim, J., Y. Chao, A. Eldering, R. Fovell, A. Hall, Q. Li, K. Liou, J. McWilliams, D. Waliser, Y. Xue, and S. Kapnick, 2009: A projection of the cold season hydroclimate in California in mid-21st century under the SRES-A1B emission scenario, Biennial California Climate Change Center Report, CEC-500-2009-029-D.
- 91Rian S., Y. Xue, G. M. MacDonald, M. Touré, Y. Yu, F. De Sales, P. A. Levine, S. Doumbia, C. E. Taylor, 2009: Analysis of Climate and Vegetation Characteristics along the Savanna-Desert Ecotone in Mali using MODIS Data. *GIScience and Remote Sensing*, **46**, Number 4, 424-450.
- 92Rutter, N., R. Essery, J. Pomeroy, N. Altimir, K. Andreadis, I. Baker, A. Barr, P. Bartlett, H. Deng, K. Elder, C. Ellis X. Feng, A. Gelfan, G. Goodbody, Y.y Gusev, D. Gustafsson, R. Hellström, T. Hirota, T. Jonas, V. Koren, W. Li, C. Luce, E. Martin, O. Nasonova, J. Pumpanen, D. Pyles, P. Samuelsson, M. Sandells, G. Schädler, A. Shmakin, T. Smirnova, M. Stähli, R. Stöckli, U. Strasser, H. Su, K. Suzuki, K. Takata, K. Tanaka, E. Thompson, T. Vesala, P. Viterbo, A. Wiltshire, Yongkang Xue, T. Yamazaki, 2009: Evaluation of forest snow processes models (SnowMIP2). *J. Geophys. Res-Atmosphere.*, **114**, D06111, doi:10.1029/2008JD011063.
- 93Zhou, WY, PW Guo, T. Luo, KN Liou Y. Gu, YK Xue, 2009: Four-stream Radiative Transfer Parameterization Scheme in a Land Surface Process Model, *ACTA METEOROLOGICA SINICA*, **23**,105-115
- 94Boone, A., I. Poccard-Leclercq, Y. Xue, J. Feng, and P. de Rosnay, 2010 : Evaluation of the WAMME model surface fluxes using results from the AMMA land-surface model intercomparison project. In Special Issue “*West African Monsoon and its Modeling*”, *Climate Dynamics*. **35**, 127-142. DOI 10.1007/s00382-009-0653-1
- 95Druyan, L.M., J. Feng, K.H. Cook, Y. Xue, M. Fulakeza, S.M. Hagos, A. Konare, W. Moufouma-Okia, D.P. Rowell, and E.K. Vizy, Seidou Sanda Ibrah, 2010: The WAMME regional model intercomparison study. In Special Issue “*West African Monsoon and its Modeling*”, *Climate Dynamics*. **35**, 175-192. DOI 10.1007/s00382-009-0676-7
- 96Li, Q., S. Sun, and Y. Xue, 2010: Analyses and development of a hierarchy of frozen soil models for cold region study, *Journal of Geophysical Research-Atmosphere*. **115**, D03107, doi:10.1029/2009JD012530.
- 97Li Q and Y. Xue, 2010: Simulated impacts of land cover change on summer climate in Tibetan

- 98 Shrestha M., L. Wang, T. Koike, Y. Xue, and Y. Hirabayashi, 2010: Improving the snow physics of WEB-DHM and its point evaluation at two SnowMIP alpine sites. *Hydrol. Earth Syst. Sci.* **14**, 2577–2594, www.hydrol-earth-syst-sci.net/14/2577/2010/doi:10.5194/hess-14-2577-2010.
- 99 Xue, Y., F. De Sales, K-M W. Lau, A. Boone, et al., 2010: Intercomparison and analyses of the climatology of the West African Monsoon in the West African Monsoon Modeling and Evaluation Project (WAMME) First Model Intercomparison Experiment. In Special Issue “*West African Monsoon and its Modeling*”, *Climate Dynamics.* **35**, 3- 27. DOI: 10.1007/s00382-010-0778-2.
- 100 Xue, Y., F. De Sales, R. Vasic, C. R. Mechoso, S. D. Prince, A. Arakawa, 2010: Global and temporal characteristics of seasonal climate/vegetation biophysical process (VBP) interactions. *J. Climate*, **23**, 1411–1433.
- 100 Xue Y. and P. M. Ruti, Prelude, 2010: Prelude for Special issue “West African Monsoon and its modeling”. *Climate Dynamics*, **35**, 1-2, 10.1007/s00382-010-0831-1.
- 101 De Sales, F. and Y. Xue, 2011: Assessing the dynamic-downscaling ability over South America using the intensity-scale verification technique. *Int. J. of Climatology*. **31**: 1205-1221. DOI: 10.1002/joc.2139
- 102 Gao, Y., Y. Xue, W. Peng, H.-S. Kang, and D. Waliser, 2011: Assessment of Dynamic Downscaling of the Extreme Rainfall over East Asia Using Regional Climate Model. *Advance in Atmospheric Sciences*, **28**, 1077–1098.
- 103 Ma, H. -Y., C. R. Mechoso, Y. Xue, H. Xiao, C. -M. Wu, J. -L. Li, and F. De Sales: 2011: Impact of land surface processes on the South American warm season climate. *Climate Dynamics.*, **37**, 187-203. DOI 10.1007/s00382-010-0813-3
- 104 Ruti, P.M., J E Williams, F Hourdin, F Guichard, A Boone, P Van Velthoven, F Favot, I Musat, M Rumukkainen, M Domínguez, M Á Gaertner, JP Lafore, T Losada, MB Rodriguez de Fonseca, J Polcher, F Giorgi, Y Xue, I Bouarar, K.Law, B. Josse, B. Barret, X. Yang, C Mari, AK Traore, 2011: Modeling the West African climate system: a review of the AMMA inter-comparison initiatives. *Atmospheric Sciences Letters*, **12**, 116-122, DOI: 10.1002/asl.305.
- 105 Niyogi, D., R. Mera, Yongkang Xue, G. Wilkerson, and F. Booker, 2011: The use of the Alpert-Stein Factor separation methodology for climate variable interaction studies in hydrological land surface models and crop yield models. In “Factor Separation in the Atmosphere – Applications and Future Prospects”, Edited by Pinhas Alpert, and Tatiana Sholokhman, 171-183. Cambridge, Cambridge, U.K. ISBN 978-0-521-19173-9
- 106 Waliser, D.E., J. Kim, Y. Xue, Chao, Y., A. Eldering, R. Fovell, A. Hall, Q. Li, K. Liou, J. McWilliams, S. Kapnick, R. Vasic, Fs. De Sale, and Y. Yu, 2011, The Observed and Simulated Major Summer Climate Features in Northwest China and Their Sensitivity to Land Surface *Climatic Change*, **109**, S59-S117, DOI 10.1007/s10584-011-0312-5
- 107 Richardson, A. D. , Ryan S. Anderson, M. Altaf Arain, Alan G. Barr, Gil Bohrer, Guangsheng Chen, Jing M. Chen, Philippe Ciais, Kenneth J. Davis, Ankur R. Desai, Michael C. Dietze, Danilo Dragoni, Mustapha El Maayar, Steven Garrity, Christopher M. Gough, Robert Grant, David Y. Hollinger, Hank A. Margolis, Harry McCaughey, Mirco Migliavacca, Russell K.

- Monson, J. William Munger, Benjamin Poulter, Brett M. Racza, Daniel M. Ricciuto, Youngryel Ryu, Kevin Schaefer, Hanqin Tian, Rodrigo Vargas, Hans Verbeeck, Jingfeng Xiao, Yongkang Xue, 2012: Terrestrial biosphere models need better representation of vegetation phenology: Results from the North American Carbon Program Site Synthesis. *Global Change Biology*. **18**, 566-584. doi: 10.1111/j.1365-2486.2011.02562.x
- 108Shrestha M., L. Wang, T. Koike, Y. Xue, and Y. Hirabayashi, 2012: Modeling the spatial distribution of snow cover in the Dudhkoshi region of the Nepal Himalaya. *Journal of Hydrometeorology*. **13**, 204-222.
- 109Xue, Y., A. Boone, and C. M. Taylor, 2012: Review of Recent Developments and the Future Prospective in West African Atmosphere/Land Interaction Studies in the Special Issue "Advances in Climate Processes, Feedbacks, Variability, and Change for the West African Climate System", *International Journal of Geophysics*, Vol. **2012**, Article ID 748921, <http://dx.doi.org/10.1155/2012/748921>
- 110Xue, Y., R. Vasic, Z. Janjic, Y. M. Liu, and P. C. Chu, 2012: The impact of spring subsurface soil temperature anomaly in the Western U.S. on North American summer precipitation – a case study using regional climate model downscaling. *Journal Geophysical Research*. **117**, D11103, doi:10.1029/2012JD017692
- 111De Sales, F. and Y. Xue, 2013: Dynamic downscaling of CFS winter seasonal simulations with the UCLA-ETA regional climate model over the United States. *Climate Dynamics*. **41**, 255-275. <http://www.springerlink.com/openurl.asp?genre=article&id=doi:10.1007/s00382-012-1567-x>.
- 112Dieppois, B., A. Diedhiou, A. Durand, M. Fournier, N. Massei, D. Sebag, Y. Xue, and B. Fontaine, 2013: Quasi-decadal signals of Sahel rainfall and West African monsoon since the mid-twentieth century, *J. Geophys. Res. Atmos.*, **118**, doi:10.1002/2013JD019681
- 113Gao J., Y. Xue, and S.-H. Wu, 2013: Potential impacts on regional climate due to land degradation in the Guizhou Karst Plateau of China. *Env. Res. Let.* **8**, No. 4, 044037, DOI: 10.1088/1748-9326/8/4/044037
- 114Ma, H-Y., H. Xiao, C. Mechoso, and Y. Xue, 2013: Sensitivity of global tropical climate to land surface processes: Mean state and interannual variability. *J. Climate*. **26**, 1818-1837 doi:10.1175/JCLI-D-12-00142.1,
- 115Ma H-Y., C. R. Mechoso, Y. Xue, H. Xiao, J. D. Neelin, and X. Ji, 2013: On the connection between continental-scale land surface processes and the tropical climate in a coupled ocean-atmosphere-land system. *J. Climate*, **26**, 9006-9025
<http://journals.ametsoc.org/doi/pdf/10.1175/JCLI-D-12-00819.1>
- 116Sato T. and Y. Xue, 2013: Validating regional climate model's downscaling ability for East Asian summer monsoon's interannual variability. *Climate Dynamics*. **41**, 2411-2426, DOI:10.1007/s00382-012-1616-5
- 117Hagos, S., L. R Leung, Y. Xue, A. Boone, F. de Sales, N. Neupane, M. Huang, and J.-H. Yoon, 2014: Assessment of Uncertainties in the Response of the African Monsoon Precipitation to Land Use Change simulated by a Regional Model. *Climate Dynamics*. **43**, 2765-2775, DOI 10.1007/s00382-014-2092-x
- 118De Sales, F. Y. Xue, G. Okin, 2016: Impact of burned area on the northern African seasonal climate from the perspective of regional modelling the Special Issue "Decadal variability of West African monsoon, external surface forcings, and their modeling". *Climate Dynamics* 47:3393–3413. <http://link.springer.com/article/10.1007/s00382-015-2522-4>

- 119 Getirana, Augusto, Emanuel Dutra, Matthieu Guimberteau, Jonghun Kam, Hong-Yi Li, Bertrand Decharme, Zhengqiu Zhang, Agnes Ducharne, Aaron Boone, Gianpaolo Balsamo, Matthew Rodell, Ally M. Toure, Yongkang Xue, Guillaume Drapeau, Kristi Arsenault, Sujay Kumar, L. Ruby Leung, Christa Peters-Lidard, Josyane Ronchail, Justin Sheffield, 2014: Water balance in the Amazon basin from a land surface model ensemble. *J. Hydrometeorology*, 15, 2586-2614, doi: <http://dx.doi.org/10.1175/JHM-D-14-0068.1>.
- 120 Qian Li and Yongkang Xue, 2014: The Observed and Simulated Major Summer Climate Features in Northwest China and their Sensitivity to Land Surface. *J. Meteorological research*, 28, 836-848.
- 121 Shrestha M., L. Wang, T. Koike, H. Tsutsui, Y. Xue, and Y. Hirabayash, 2014: Correcting basin-scale snowfall in a mountainous basin using a distributed snowmelt model and remote sensing data., *Hydrol. Earth Syst. Sci.*, 18, 747–761 www.hydrol-earth-syst-sci.net/18/747/2014/doi:10.5194/hess-18-747-2014
- 122 Xue, Y., Z. Janjic, J. Dudhia, R. Vasic, F. De Sales (invited), 2014: A review on regional dynamical downscaling in intra-seasonal to seasonal simulation/prediction and major factors that affect downscaling ability. *Atmospheric Research*, 147-148, 68-85.
<http://authors.elsevier.com/sd/article/S0169809514002002>.
- 123 Gao J., W. Hou, Y. Xue, and S.-H. Wu, 2017: Validating the dynamic downscaling ability of WRF for East Asian summer climate. *Theor. Appl. Climatol.*, 128, 241–253. DOI 10.1007/s00704-015-1710-9
- 124 Oaida C. M., Yongkang Xue, Mark G. Flanner, S. McKenzie Skiles, Fernando De Sales , Thomas H. Painter, 2015: Improving snow albedo processes in WRF/SSiB regional climate model to assess impact of dust and black carbon in snow on surface energy balance and hydrology over western U.S. *J. Geophys. Res. Atmos.*, 120, 3228-3248, doi:10.1002/2014JD022444.
- 125 Rodriguez-Fonseca B., Elsa Mohino; Roberto C. Mechoso; Cyril Caminade; Michela Biasutti; Marco Gaetani; Javier García-Serrano; Edward K. Vizy; Kerry Cook; Yongkang Xue; Irene Polo; Teresa Losada; Leonard Druyan; Bernard Fontaine; Juergen Bader; Francisco J. Doblas-Reyes; Lisa Goddard; Serge Janicot; Alberto Arribas; William Lau; Andrew Colman; David P. Rowell; Fred Kucharski; Aurore Voldoire, 2015: Variability and Predictability of West African Droughts. *J. Climate*. 28, 4034-4060
- 126 Shrestha M., T. Koike, Y. Hirabayashi, Y. Xue, L. Wang, G. Rasul, and B. Ahmad, 2015: Integrated simulation of snow and glacier melt in water and energy balance-based, distributed hydrological modeling framework at Hunza River Basin of Pakistan Karakoram region, *JGR*. 120, 10, 4889–4919, DOI: 10.1002/2014JD022666
- 127 Zhang Z., Yongkang Xue, Glen MacDonald, Peter M. Cox and G. James Collatz, 2015: Investigation of North American vegetation variability under recent climate – A study using the SSiB4/TRIFFID biophysical/dynamic vegetation model. *J. Geophys. Res.* 120, 4, 1300–1321, DOI: 10.1002/2014JD021963
- 128 Xue Y. and P. A. Dirmeyer, 2015: Land-atmosphere interactions in monsoon regimes and future prospects for enhancing prediction. *CLIVAR Exchanges newsletter* - a special issue on the Monsoons. 19, 28-32.
- 129 Boone A, Y. Xue, F. De Sales, et al., 2016: The regional impact of Land-Use Land-cover Change (LULCC) over West Africa from an ensemble of global climate models under the

- auspices of the WAMME2 project in the in the Special Issue “Decadal variability of West African monsoon, external surface forcings, and their modeling”. Climate Dynamics, 47, 3547–3573. DOI: 10.1007/s00382-016-3252-y.
- 130 Gu Y., Y. Xue, F. De Sales, and K. N. Liou: 2016: A GCM Investigation of Dust Aerosol Impact on Regional Climate of North Africa and South/East Asia in the Special Issue “Decadal variability of West African monsoon, external surface forcings, and their modeling”. Climate Dynamics, 46, 2353–2370, [DOI: 10.1007/s00382-015-2706-y](https://doi.org/10.1007/s00382-015-2706-y)
- 131 Gu Y., K. N. Liou, J. H. Jiang, R. Fu, Sarah Lu, Y. Xue, 2017: A GCM Investigation of Impact of Aerosols on the Precipitation in Amazon during the Dry to Wet Transition. Climate Dynamics. DOI :10.1007/s00382-016-3211-7, 48, 2393-2404
- 132 Kuo Tzu-Hsien, Jen-Ping Chen, Yongkang Xue, 2016: Stem-root flow effect on soil-atmosphere interactions and uncertainty assessments. Hydrol. Earth Syst. Sci., 20, 1509–1522, www.hydrol-earth-syst-sci.net/20/1509/2016/doi:10.5194/hess-20-1509-2016
- 133 Li, W., W. Guo, P.-C. Hsu Y. Xue, 2016: Influence of the Madden–Julian oscillation on Tibetan Plateau snow cover at the intraseasonal time-scale. Scientific Report, 6:30456, DOI: 10.1038/srep30456
- 134 Li, W., W. Guo, Y. Xue, C. Fu, B. Qiu, 2016: Sensitivity of a regional climate model to land surface parameterization schemes for East Asian summer monsoon simulation. Climate Dynamics. 47, Issue 7, pp 2293–2308. DOI 10.1007/s00382-015-2964-8
- 135 *Lokupitiya E., S. Denning, K. Schaefer, D. Ricciuto, R. Anderson, M. A. Arain, I. Baker, A. G. Barr, G. Chen, J.M. Chen, P. Ciais, D.R. Cook, M. Dietze, M. El Maayar, M. Fischer, , R. Grant, D. Hollinger, C. Izaurrealde, A. Jain, C. Kucharik, Z. Li, S. Liu, L. Longhui, R. Matamala, P. Peylin, D. Price, A.D. Richardson, S.W. Running, A. Sahoo, M. Sprintsin, A.E. Suyker, H. Tian, C. Tonitto, M. Torn, H. Verbeeck, S.B. Verma, Y. Xue, 2016: Carbon and Energy Fluxes in Cropland Ecosystems: A Model-Data Comparison. Biogeochemistry. 123, 53-76, DOI 10.1007/s10533-016-0219-3
<http://link.springer.com/article/10.1007/s10533-016-0219-3>
- 136 Qiu, B., W. Guo, Y. Xue, and Q. Dai, 2016: Implementation and evaluation of a generalized radiative transfer scheme within canopy in the soil-vegetationatmosphere transfer (SVAT) model, J. Geophys. Res. Atmos., 121, 12,145–12,163, doi:10.1002/2016JD025328.
- 137 Rishmawi, K., S. D. Prince, and Y. Xue, 2016: Vegetation Responses to Climate Variability in the Northern Arid to Sub-Humid Zones of Sub-Saharan Africa. Remote Sensing, 8, 11, 910, doi:10.3390/rs8110910. www.mdpi.com/journal/remotesensin.
- 138 Wang G., M. Yu, Y. Xue, 2016: Modeling the potential contribution of land cover changes to the late twentieth century Sahel drought using a regional climate model: impact of lateral boundary conditions. *Climate Dynamics.* 47, 3457-3477. DOI 10.1007/s00382-015-2812-x
- 139 Xue, Y. C. M. Oaida, I. Diallo, J D. Neelin, S. Li, F. De Sales, Y. Gu, D. Robinson, R. Vasic and L. Yi, 2016: Spring land temperature anomalies in northwestern US and the summer drought over Southern Plains and adjacent areas, Environ. Res. Lett. 11 (2016) 044018, <http://dx.doi.org/10.1088/1748-9326/11/4/044018>
- 140 Xue, Y, F. De Sales, W. K-M Lau, et al., 2016: West African monsoon decadal variability and drought and surface-related forcings: Second West African Monsoon Modeling and Evaluation Project Experiment (WAMME II) in the Special Issue “Decadal variability of

- West African monsoon, external surface forcings, and their modeling". Climate Dynamics, 47, 3517-3545. DOI: 10.1007/s00382-016-3224-2.
- 141 Xue Y., S. Janicot, W. Lau, 2016 : Variability and predictability of West African monsoon on seasonal and decadal scales. Climate Dynamics, 47, 3391–3392, DOI 10.1007/s00382-016-3429-4
- 142 Dintwe, K., G. S. Okin, Y. Xue, 2017: Fire-induced albedo change and surface radiative forcing in Sub-Saharan Africa savanna ecosystems: implications for the energy balance. Journal of Geophysical Research: Atmospheres. 122, 6186-6202, DOI: 10.1002/2016JD026318
- 143 Wang, L., Jing Zhou, Jia Qi, Litao Sun, Kun Yang, Lide Tian, Yanluan Lin, Wenbin Liu, Maheswor Shrestha, Yongkang Xue, Toshio Koike, Yaoming Ma, Xiuping Li, Yingying Chen, Deliang Chen, Shilong Piao, Hui Lu, 2017: Development of a land surface model with coupled snow and frozen soil physics. Water Resources Research. 53(6), 5085-5103 DOI: 10.1002/2017WR020451.
- 144 Xue, Y., 2017: Impact of Land-Atmosphere Interaction on Sahel Climate in Oxford Research Encyclopedia of Climate Science. DOI: 10.1093/acrefore/9780190228620.013.514. Oxford Press.
- 145 Xue, Y., Y. Ma, Q. Li, 2017: Land–Climate Interaction Over the Tibetan Plateau in Oxford Research Encyclopedia of Climate Science. DOI: 10.1093/acrefore/9780190228620.013.59. Oxford Press
- 146 Fisher, J., Hayes, D., Schwalm, C. R., Huntzinger, D., Stofferahn, E., Schaefer, K., Luo, Y., Wullschleger, S., Goetz, S.; Miller, C.; Griffith, P.; Chadburn, S.; Chatterjee, A.; Ciais, P., Douglas, T., Genet, H., Ito, A.; Neigh C., S.R.; Poulter, B.; Rogers, B., Sonnentag, O.; Tian, H.; Wang, W.; Xue, Y.; Yang, Z.-L.; Zeng, N., 2018: Missing pieces to modeling the Arctic-Boreal puzzle. Env. Res. Let., 13, 020202, <https://doi.org/10.1088/1748-9326/aa9d9a>.
- 147 Qiu B., Yongkang Xue, Joshua B. Fisher, Weidong Guo, Joseph A Berry, Yongguang. Zhang, 2018: Satellite Chlorophyll Fluorescence and Soil Moisture Observations Lead to Advances in the Predictive Understanding of Global Terrestrial Coupled Carbon-Water Cycles. Global Biogeochemical Cycles, 32, 360-375, 10.1002/2017GB005744
148. Xue Y., I. Diallo, W. Li, J. D. Neelin, P. C. Chu, R. Vasic, W. Guo, Q. Li, D. A. Robinson, Y. Zhu, C. Fu, and C. M. Oaida (2018). Spring land surface and subsurface temperature anomalies and subsequent downstream late spring-summer droughts/floods in North America and East Asia. Journal of Geophysical Research: Atmospheres, 123, 5001-5019. <https://doi.org/10.1029/2017JD028246>
- 149 Li, W., W. Guo, B. Qiu, Y. Xue, P.-C. Hsu, and J. Wei, 2018: Influence of Tibetan Plateau snow cover on East Asian atmospheric circulation at medium-range time scales. Nature Communications, (2018)9:4243 | DOI: 10.1038/s41467-018-06762-5 | www.nature.com/naturecommunications
- 150 De Sales F., G. Okin, Y. Xue, K. Dintwe, 2019: On the effects of wildfires on precipitation in Southern Africa. Climate Dynamics, 52, 951-967, DOI: 10.1007/s00382-018-4174-7
- 151 Diallo, I., Y. Xue, Q. Li, F. De Sales, W. Li, 2019: Dynamical downscaling the impact of spring Western U.S. land surface temperature on the 2015 flood extremes at the Southern Great Plains: Effect of domain choice, dynamic cores and land surface parameterization. Climate Dynamics, 53(1-2), 1039-1061. <https://doi.org/10.1007/s00382-019-04630-6>

- 152 Fu, A., Y. Xue, M. D. Hartman, W. Li, B. Qiu, Y. Liu, Y. N. Chen & Y. Wang, 2019: Evaluation of the Impacts of Regional Climate Factors and Crop Management on Corn Yields in Different Climate Regimes of China Using the DayCent Model. *J. Agricultural Sciences*. Vol. 11, No. 15, doi:10.5539/jas.v11n15p35. URL: <https://doi.org/10.5539/jas.v11n15p35>
- 153 Gillespie, T.W., A. Madson, C. F. Cusack, Y. Xue, 2019: Changes in NDVI and population in protected areas on the Tibetan plateau. *Arctic, Antarctic, and Alpine Research*, 51:1, 428-439, <https://doi.org/10.1080/15230430.2019.1650541>
- 154 Huang, H, Y. Gu, Y. Xue, J. Jiang, and B. Zhao, 2019: Assessing aerosol indirect effect on clouds and regional climate of East/South Asia and West Africa using NCEP GFS, *Climate Dynamics*. 52, 5759–5774. DOI: 10.1007/s00382-018-4476-9
- 155 Lee, J., Y. Xue, F. De Sales, I. Diallo, L. Marx, M. Ek, K. R. Sperber, P. J. Gleckler, 2019: Evaluation of multi-decadal UCLA-CFSv2 simulation and impact of interactive atmospheric-ocean feedback on global and regional variability. *Climate Dynamics*, 52, 3683–3707, <https://doi.org/10.1007/s00382-018-4351-8>.
- 156 Liu, Y., Y. Xue, G. MacDonald,, P. Cox, Z. Zhang, 2019: Global vegetation variability and its response to elevated CO₂, global warming, and climate variability - A study using offline SSiB4/TRIFFID model and satellite data. *Earth System Dynamics*, 10, 9-29, <https://doi.org/10.5194/esd-10-9-2019>
- 157 Vereecken, H., Lutz Weihermüller, Shmuel Assouline, Jirka Šimůnek, Anne Verhoef, Michael Herbst, Nicole Archer, Binayak Mohanty, Carsten Montzka, Jan Vanderborght, Gianpaolo Balsamo, Michel Bechtold, Aaron Boone, Sarah Chadburn, Matthias Cuntz, Bertrand Decharme, Agnès Ducharme, Michael Ek, Sébastien Garrigues, Klaus Goergen, Joachim Ingwersen, Stefan Kollet, David M. Lawrence, Qian Li, Dani Or, Sean Swenson, Philipp de Vrese, Robert Walko, Yihuan Wu, Yongkang Xue, 2019: Infiltration from the pedon to global grid scales: An overview and outlook for land surface modelling. *Vadose Zone Journal*. 18, 180191, DOI: 10.2136/vzj2018.10.0191
- 158 Yao, Tandong, Yongkang Xue, Deliang Chen et al., 2019: Recent Third Pole's rapid warming accompanies cryospheric melt and water cycle intensification and interactions between monsoon and environment: multi-disciplinary approach with observation, modeling and analysis. *Bulletin of American Meteorological Society*. 100. 424- 444. DOI: 10.1175/BAMS-D-17-0057.1
- 159 Yao, T., Y. Xue, D. Chen et al., 2019: An Arctic-Tibetan connection on subseasonal to seasonal time scale. *Geophysical Research Letter*, 46, 2790-2799, DOI: 10.1029/2018GL081476
- 160 Zhong, L., Y. Ma, Y. Xue, and S. Piao, 2019: Climate Change Trend and Impact on Vegetation Greening over Tibetan Plateau. *Journal Geophysical Research: Atmosphere*, 124, 7540–7552. <https://doi.org/10.1029/2019JD030481>
161. Huang H., Y. Xue, N. Chilukoti, Ye Liu, G Chen, and I. Diallo, 2020: Assessing global and regional effects of reconstructed land use and land cover change since 1950 on climate using a coupled land-atmosphere-ocean model. *J. Climate*, 33, 8997-9013. <https://doi.org/10.1175/JCLI-D-20-0108.1>
162. Huang, H., Y. Xue, F. Li, and Y. Liu, 2020: Modeling long-term fire impact on ecosystem characteristics and surface energy using the dynamic global vegetation model SSiB4/TRIFFID-Fire. *Geoscientific Modeling Development*. 13, 6029–6050,

<https://doi.org/10.5194/gmd-13-6029-2020>

- 163 Liu Y. and Y. Xue, 2020: Expansion of the Sahara Desert and shrinking of frozen land of the Arctic. *Scientific Reports.* (2020) 10:4109 | <https://doi.org/10.1038/s41598-020-61085-0>. www.nature.com/articles/s41598-020-61085-0.
164. Liu Y., Y. Xue, Q. Li, D. Lettenmaier, and P. Zhao, 2020: Investigation of the variability of near-surface temperature anomaly and its causes over the Tibetan Plateau. *J. Geophys. Res. Atmos.* 125, e2020JD032800. <https://doi.org/10.1029/2020JD032800>
- 165 Chilukoti, N. and Y. Xue, 2021: An assessment of potential climate impact during 1948-2010 using historical land use land cover change maps. *International Journal of Climatology.* 41, 295-315, DOI: 10.1002/joc.6621
- 166 Huang H., Yongkang Xue, Ye Liu, Fang Li, and Gregory Okin, 2021: Modeling the short-term fire effects on vegetation dynamics and surface energy in Southern Africa using the improved SSiB4/TRIFFID-Fire model. *Geosci. Model Dev.* 14, 7639–7657, 2021. <https://doi.org/10.5194/gmd-14-7639-2021>
- 167 Quan, J., Y. Xue, Q. Duan, Z. Liu, K. W. Oleson, Y. Liu, 2021: Numerical Investigation and Uncertainty Analysis of Eastern China's Large-Scale Urbanization Effect on Regional Climate, *J. Meteor. Res.*, 35(6), 1023–1040, doi: 10.1007/s13351-021-1033-y
- 168 Li, Q., Xue, Y., and Liu, Y.: Impact of frozen soil processes on soil thermal characteristics at seasonal to decadal scales over the Tibetan Plateau and North China, *Hydrol. Earth Syst. Sci.*, 25, 2089–2107, <https://doi.org/10.5194/hess-25-2089-2021>, 2021.
- 169 Lu S., W Guo, Y. Xue, F. Huang, J. Ge, 2021: Simulation of summer climate over Central Asia shows high sensitivity to different land surface schemes in WRF. *Climate Dynamics*, 57, 2249-2268. <https://doi.org/10.1007/s00382-021-05876-9>.
- 170 Xiao, M., Sarith P. Mahanama, Yongkang Xue, Fei Chen, and Dennis P. Lettenmaier, 2021: Modeling Snow Ablation over the Western United States Mountains: Patterns and Controlling Factors. *J. Hydrometeorology*. 22, 297-311. DOI: <https://doi.org/10.1175/JHM-D-19-0198.1>
- 171 Xue, Y., T. Yao, A. A. Boone, I. Diallo, et al. 2021: Impact of Initialized Land Surface Temperature and Snowpack on Subseasonal to Seasonal Prediction Project, Phase I (LS4P-I): Organization and Experimental design, *Geosci. Model Dev.*, 14, 4465–4494, <https://doi.org/10.5194/gmd-14-4465-2021>
- 172 Yu, L., Y. Xue, I. Diallo, 2021: Vegetation greening in China and its effect on summer regional climate, *Science Bulletin*, 66, 13-17. <https://doi.org/10.1016/j.scib.2020.09.003>
- 173 Zhang Z.-Q., Y. Xue, P. Zha, H. Deng, 2021: Effects of Dynamic Vegetation on Global Climate Simulation Using the NCEP GFS and SSiB4/TRIFFID, *J. Meteor. Res.*, 35(6), 1041–1056, doi: 10.1007/s13351-021-1099-6
- 174 Diallo, I., Y. Xue, Q. Chen, X. Ren, W. Guo, 2022: Effects of Spring Tibetan Plateau Land Temperature Anomalies on Early Summer Floods/Droughts over the monsoon regions of South East Asia. *Climate Dynamics.* 62, 2659-2682, DOI: 10.1007/s00382-021-06053-8
- 175 Ganem, K.A.; Xue, Y.; Rodrigues, A.d.A.; Franca-Rocha,W.; Oliveira, M.T.d.; Carvalho, N.S.d.; Cayo, E.Y.T.; Rosa, M.R.; Dutra, A.C.; Shimabukuro, Y.E., 2022: Mapping South America's Drylands through Remote Sensing—A Review of the Methodological Trends and Current Challenges. *Remote Sens.* 2022, 14, 736. <https://doi.org/10.3390/rs14030736>
- 176 Miao, X., Guo, W., Qiu, B., Lu, S., Zhang, Y., Xue, Y., & Sun, S., 2022: Accounting for

- topographic effects on snow cover fraction and surface albedo simulations over the Tibetan Plateau in winter. *Journal of Advances in Modeling Earth Systems*, 14, e2022MS003035. <https://doi.org/10.1029/2022MS003035>
- 177 Qi, X., Yang, J., Xue, Y., Bao, Q., Wu, G., & Ji, D., 2022: Subseasonal warming of surface soil enhances precipitation over the eastern Tibetan Plateau in early summer. *Journal of Geophysical Research: Atmospheres*, 127, e2022JD037250. <https://doi.org/10.1029/2022JD037250>
- 178 Qiu, Yuan, Jinming Feng, Jun Wang, Yongkang Xue, Zhongfeng Xu, 2022: Memory of land surface and subsurface temperature (LST/SUBT) initial anomalies over Tibetan Plateau in different land models. *Climate Dynamics*, 62, 2703-2718, <https://doi.org/10.1007/s00382-021-05937-z>
- 179 Sugimoto, Shiori, Y. Xue, T. Sato, and H. G. Takahashi, 2022: Influence of convective processes on Weather Research and Forecasting model precipitation biases over East Asia, *Climate Dynamics*, 62, 2859-2876, DOI: <https://doi.org/10.1007/s00382-022-06587-5>. <https://link.springer.com/article/10.1007/s00382-022-06587-5>
- 180 Xu, H, X-Z Liang, Y. Xue: 2022: Regional climate modeling to understand Tibetan heating remote impacts on East China precipitation. *Climate Dynamics*, DOI: 62, 2683-2702, <https://doi.org/10.1007/s00382-022-06266-5>
- 181 Xue Y., I. Diallo, A. A. Boone, et al., 2022: Spring Land Temperature in Tibetan Plateau and Global-Scale Summer Precipitation – Initialization and Improved Prediction. *Bulletin of American Meteorological Society*. 103, 12, DOI: <https://doi.org/10.1175/BAMS-D-21-0270.1>, E2756-E2767
- 182 Zhou J., L. Wang, X. Zhong, T. Yao, J. Qi, Y. Wang, Y. Xue, 2022: Quantifying the major drivers for the expanding lakes in the interior Tibetan Plateau. *Science Bulletin*. 67, 474-478. <https://doi.org/10.1016/j.scib.2021.11.010>
- 183 Saha, S. K., Y. Xue, S. Krishnakumar, I. Diallo, Y. Shivamurthy, T. Nakamura, Q. Tang and H. Chaudhari, 2023, A Dominant Mode in the First Phase of the Asian Summer Monsoon Rainfall: Role of Antecedent Remote Land Surface Temperature. *Climate Dynamics*, 61, 2735-2751, <https://doi.org/10.1007/s00382-023-06709-7>
- 184 Tang J, Y Xue, M. Long, M. Ma, X-Z Liang, S. Sugimoto, K. Yang, Z. Ji, J. Hong, J. Kim, H. Xu, X. Zhou, T. Sato, H G. Takahashi, S. Wang, G. Wang, S. C. Chou, W. Guo, M. Yu, X. Pa, 2023: Regional climate model intercomparison over the Tibetan Plateau in the GEWEX/LS4P Phase I. *Climate Dynamics*, 62, 2837-2858, <https://doi.org/10.1007/s00382-023-06992-4>.
- 185 Xue Y., I. Diallo, A. A. Boone, et al., 2024: Remote effects of Tibetan Plateau spring land temperature on global subseasonal to seasonal precipitation prediction and comparison with effects of sea surface temperature: The GEWEX/LS4P Phase I experiment. *Climate Dynamics*. 62, 2603-2628, DOI: [10.1007/s00382-023-06905-5](https://doi.org/10.1007/s00382-023-06905-5)
54 co-authors
- 186 Qin Y., Q. Tang, Y. Xue, Y. Liu, and Y. Lin, 2023: Improved subseasonal-to-seasonal precipitation prediction of climate models with nudging approach for better initialization of Tibetan Plateau-Rocky Mountain Circumglobal wave train and land surface conditions. *Climate Dynamics*, 62, 2645- 2658, <https://doi.org/10.1007/s00382-023-07082-1>.
- 187 Xue, Y. and W. K-M Lau, 2024: Preface: Subseasonal-to-seasonal predictability of extreme

- precipitation and land forcing. *Climate Dynamics.* 62, 2599-2600 Li, Q., Y. Xue, X. Konga, W. K-M Lau, A. Wang, Q.P. Li, Z. Cao, H. Nayak, G. Xu, W. Guo, Ratko V., 2025: Excessive Tibetan Plateau Spring Warming Found to Cause Catastrophic June 2024 Heavy Rainfall in China. *Science Bulletin*, <https://doi.org/10.1016/j.scib.2025.01.01>
- 188 Zhang, Y., Y. Pan, Y. Xue, et al., 2024: Near-global summer circulation response to the spring surface Temperature anomaly in Tibetan Plateau ---- The GEWEX/LS4P First Phase Experiment. *Climate Dynamics.* 62, 2907-2924, DOI: 10.1007/s00382-024-07210-5
- 189 Cao, Z., Xue, Y., Nayak, H. P., Lettenmaier, D. P., Frankenberg, C., Köhler, P., & Li, Z. (2024). Understanding terrestrial water and carbon cycles and their interactions using integrated SMAP soil moisture and OCO-2 SIF observations and land surface models. *Journal of Geophysical Research: Atmospheres*, 129, e2024JD041077. <https://doi.org/10.1029/2024JD041077>
190. Fan, Y., J. Yang, Q. Bao, T. Ma, G. Wu, Y. Xue, C. Shi, Y. Liu, and X. Qi, 2024: How does the Tibetan plateau land thermal initial condition influence the subseasonal prediction of 2020 record-breaking Mei-yu rainfall. *Journal of Geophysical Research: Atmospheres*, 129, e2024JD041723. <https://doi.org/10.1029/2024JD041723>
- 191 Xiang Z., Y. Xue, W. Guo, M. D. Hartman, Y. Liu, W. J. Parton, 2024: Development of a plant carbon-nitrogen interface coupling framework in a coupled biophysical-ecosystem-biogeochemical model (SSiB5/Triffid/DayCent-SOM v1.0). *Geosci. Model Dev.* , 17, 6437–6464, 2024. <https://doi.org/10.5194/gmd-17-6437-2024>
192. Ganem, K., Y. Xue, et al.:2025: From Rainforests to Drylands: A Tailored Framework for Mapping Two Decades of Land Use and Land Cover Dynamics in Northeast Brazil. *GIScience & Remote Sensing*.
193. Kong X. H., A. Wang, Y. Xue, N. Wei, H. Zhang, Q. Hu, J. He, X. Bi, Y. Chen, 2025: Predicting on the extreme precipitation in East and Southeast Asia during summer 2022 from the antecedent soil temperature anomaly over the Tibetan Plateau. *J. Climate.* DOI: 10.1175/JCLI-D-24-0500.1.
194. Li, Q., Y. Xue, X. Konga, W. K-M Lau, A. Wang, Q.P. Li, Z. Cao, H. Nayak, G. Xu, W. Guo, Ratko V., 2025: Excessive Tibetan Plateau Spring Warming Found to Cause Catastrophic June 2025 Heavy Rainfall in China. *Science Bulletin*, <https://doi.org/10.1016/j.scib.2025.01.011>
195. Nayak, H. P., Y. Xue, Q. Li, D. J. Neelin, I. Diallo, Z. Cao, R. Vasic, 2025: Effect of Rocky Mountain and Tibetan Plateau Spring Land Temperature on N. American and East Asian Summer Precipitation Anomalies. *J. Geo. Res. Atmos.* DOI: 10.1029/2024JD042318
196. Nayak, H. P., K. K. Osuri, U. C. Mohanty, D Niyogi and Y. Xue, 2025: Variable soil moisture feedback associated with short-spell heavy rainfall events during onset and active phases of the Indian summer monsoon. *Journal of Applied Meteorology and Climatology.* DOI: <https://doi.org/10.1175/JAMC-D-24-0002.1>
- 197 Xue, Y., C Mechoso, P. Nobre, 2025: Role of Land Surface Processes in the Tropical South American Climate and Climate Change (Ed. C. Mechoso), Oxford Research Encyclopedia Climate Science. Oxford Press
- 198 Xue, Y. and A. Boone, 2025: Excessive Tibetan Plateau Spring Warming Found to Cause Catastrophic June 2024 Precipitation in Southern China and Bangladesh - A Typical LS4P Scenario. *GEWEX Quarterly*, Vol. 35, No. 1. 4-6. International GEWEX Project Office, Silver Spring, MD