YIQI* LUO

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EDUCATION

Postdoctoral fellow, Stanford University. 1992-94.
Postdoctoral fellow, University of California, Los Angeles. 1991-92.
Ph.D. in Ecology, University of California, Davis. 1991.
B.S. Agronomy, Yangzhou University (formerly Jiangsu Agriculture College), China. 1982.

ACADEMIC APPOINTMENTS

2022-pres. Liberty Hyde Bailey Professor, School of Integrative Plant Science, Cornell University.
2021-2022. Regents Professor, Northern Arizona University
2017-2022. Professor, Center for Ecosystem Science and Society, Department of Biological Sciences, Northern Arizona University
2017-2022. Adjunct Professor, School of Informatics, Computing and Cyber Systems, Northern Arizona University.
2017. George Lynn Cross Professor, University of Oklahoma
2001-17. Professor, Department of Microbiology and Plant Biology. University of Oklahoma.
2017. Visiting fellow, Ecotron, Le Centre national de la recherche scientifique, Montpellier, France.
2017-19. Adjunct Professor, Department of Earth System Science, Tsinghua University, Beijing, China
2012-2015. Chair Professor, Center for Earth System Science, Tsinghua University, Beijing, China.
2008-2010. Director, Center of Ecological Forecasting and Data Assimilation, University of Oklahoma.
2008-2012 Visiting Professor, Department of Ecology and Evolutionary Biology, Fudan Univ. China
2005-06. Visiting Fellow, Department of Ecology and Evolution, Princeton University.
2005-08. Visiting professor, Institute of Geographical Sciences and Natural Resources Research, Chinese Academy of Sciences, Beijing, China
2003-09. Interim Director for Global Change Ecology Research Center, University of Oklahoma.
2003-08. China's Ministry of Education Chang-Jiang Chair Professor, Fudan University, China.
1999-2001. Associate Professor, Department of Botany and Microbiology. University of Oklahoma.
1997-98. Associate Research Professor. Desert Research Institute, University of Nevada.
1994-97. Assistant Research Professor. Desert Research Institute, University of Nevada.
1997-98. Graduate faculty, Hydrological Sciences program, University of Nevada, Reno.
1996. Visiting lecturer, Department of Economics, University of Nevada, Reno.
1994-98. Graduate faculty, Ecology, Evolution and Conservation Biology program, University of Nevada, Reno.
1981-85. Lecturer and research associate, Dep't of Agronomy, Yangzhou University, China.

* Pronounced as E-chee

TEACHING EXPERIENCE

Lecturing

2024-pres. Data-model fusion in research, Cornell University
2018-pres. Summer training course: *New Advances in Land Carbon Cycle Modeling*
2023 Data-model fusion in Ecology, Cornell University
2018-2022. Data-model fusion in Ecology, Northern Arizona University
2015-17. Climate change and ecosystems, University of Oklahoma
2015 Short course *Data analysis and modeling in soil science*, Institute of Agricultural Resources and Regional Planning, Chinese Academy of Agricultural Sciences
2014 Short course *Ecological Model development, Data Assimilation, and Prediction*, Tsinghua University
2002-2017. BOT 4810/5810. *Ecosystem Ecology*, University of Oklahoma.
2001-2017. BOT/ZOO/MBIO 6003. *Ecological Modeling*. University of Oklahoma
1999-2005 BOT 3453. *Principles of Plant Ecology*. University of Oklahoma
2004. *Research Methods in Global Change and Ecosystem Science* in *Ecology Lecture Series*, Fudan University, China
2003, 2008, 2009, 2010, 2011, *Global Change Ecology*, a short summer course at Fudan University, China.
2000. BOT 4810/5810. *Global Change Biology*. University of Oklahoma
1998. BIO 325 *Computer acquaintance and applications in biological sciences*. University of Nevada, Reno.
1997. BIO712 *Ecological Modeling*. University of Nevada, Reno.
1996. ECO 350. *Principles of Statistics*. University of Nevada, Reno.
1982-85. *Experimental Design and Biostatistics*. Yangzhou University.
1983. *Regression Analysis*. Yangzhou University.

Teaching Assistant

1990. *Plant-Soil-Water Relationships*. University of California, Davis.
1990. *Energy, Society, and Environment*. University of California, Davis.
1980-82. *Experimental Design and Biostatistics*. Yangzhou University.

HONORS, AWARDS, RECOGNITIONS, AND SCHOLARSHIPS

2016-2025. Highly Cited Researcher, Web of Science Group, Clarivate Analytics
2021. 1000 World's Top Climate Scientist, The Reuters Hot List (No. 177)
2021. Regents' Professorship, Northern Arizona University.
2018. Fellow of Ecological Society of America (ESA)
2017. Invited Scientist Fellowship, Centre Méditerranéen Environnement et Biodiversité Universite Montpellier, France
2017. ChinaFlux 15th Anniversary Celebration Award
2017. George Lynn Cross Professorship, University of Oklahoma.
2016. Fellow of American Geophysical Union (AGU)
2014. Eileen Mary Harris Scholar of the Melbourne School of Land and Environment (MSLE), University of Melbourne, Australia
2013. Fellow of American Association for the Advancement of Science (AAAS)
2013-pres. F1000 Section head, Ecosystem Ecology
2011-2013. Contributing author, Intergovernmental Panel for Climate Change (IPCC) 5th Assessment Report (AR5).
2008. The Best Paper Award in Journal of Integrative Plant Biology 2003-08. Changjiang Scholarship, Minister of Education, China
2001. Honored student adviser, University of Oklahoma Student Association

1999. Research Award to Foreign Specialist, National Institution of Agro-Environmental Science, Japan.
1993. Travel award to present a paper in a symposium in honor of the 60th birthday of Dr. Paul J. Crutzen, a Nobel Laureate, held at Boulder, Colorado.
1988. Honorary membership in Phi Sigma Society, Gamma Delta Chapter. 1985-86. Overseas Study Scholarship. Education Commission, China.
1985. Achievements Award in Science and Technology, Jiangsu Province, China.

RESEARCH GRANTS

Funded projects (Totaling USD $167,087,587, AUD $460,000; Chinese Yuan ¥10,735,000, 143,100€ EURO's)

76. 2025-30. NSF $7,650,000 (Co-PI, PI: Jennifer Rudgers) LTER: SEVILLETA SITE: ENVIRONMENTAL VARIABILITY AT DRYLAND ECOTONES
75. 2024-29. NSF $1,253,368 (Co-PI, PI: Ying Sun) Collaborative Research: MRA: Harness the theoretical and data advances in solar-induced chlorophyll fluorescence to jointly partition ecosystem carbon and water fluxes
74. 2023-28. DOE ORNL $610,000 (PI) Interactive model-experiment integration with Ecological Patform for Assimilating Data with models to make near-time forecasting at SPRUCE.
73. 2023-2028, USDA, $20M led by University of Minnesota (senior personnel, Drs. Johannes Lehmann and Carla Gomes as Co-PIs from Cornell) Theme 3: Ag-Forestry-AI (AgFoAI): AI Institute for Agriculture and Forest Mitigation and Adaptation to Climate Change
72. 2023-2028, USDA $60M led by NYS Department of Environmental Conservation (PI for a subward of $3,951,288 for Cornell University) NYS Connects: Climate Smart Farms and Forests
71. 2023-2025, NSF $1M (Co-PI, PI, Jillian Godfar) NSF Engines: Type 1, Upstate 2.0 a Bioeconomy & Climate Tech Innovation Cluster.
70. 2022-25, NSF $75,256 (Mentoring role for PI Heather Throop, Arizona State University) MCA: Improving understanding of controls over spatial heterogeneity in dryland soil carbon pools in the age of 'big data'
69. 2022-26, DOE $999,990 (Co-PI, PI, Will Pockman, University of New Mexico). Empirical measurements and model representation of hydraulic redistribution as a control on function of semiarid woody ecosystems
68. 2022-27, NSF $699,883 (Co-PI, PI, Andrew Richardson, NAU). Interacting Impacts of Changes in Mean and Variance of Water Availability on Vegetation Phenology and Productivity in Dryland Ecosystems
67. 2020-24. NSF $1,046,464 (Co-PI, PI Jingfeng Xiao, University of New Hempshire). Collaborative Research: MRA: Constraining the continental-scale terrestrial carbon cycle using NEON data. (NAU portion, $448.704), Research Exeprience for Undergradaute (REU) supplement $29,318
66. 2019-23. DOE ORNL $600,000 (PI) Interactive model-experiment integration with Ecological Patform for Assimilating Data with models to make near-time forecasting at SPRUCE.
65. 2019-2022. DOE, $999,972 (Co-PI, PI: Ted Schuur, Northern Arizona University) Coupled Long-Term Experiment and Model Investigation of the Differential Response of Plants and Soil Microbes in a Changing Permafrost Tundra Ecosystem
64. 2018-2022. NSF $93,087 (PI), Training courses on the matrix approach to modeling land carbon and nitrogen cycles
63. 2018-2020. DOE $100,000, subcontract from Reducing Uncertainties in Biogeochemical Interactions through Synthesis and Computation (RUBISCO) Scientific Focus Area (SFA).
62. 2017-2019. Minister of Science and Technology, China, CNY ¥9,720,000 (PI), Development of Evaluation Systems of Performances of Earth System Model Components offline or in coupling.

61. 2017-24. NSF $6,432,997 (Co-PI, PI: Jennifer Rudgers, University of New Mexico) LTER: Sevilleta (SEV) Site: Climate Variability at Dryland Ecotones (NAU portion, $511,694)
60. 2015-19. DOE ORNL $300,000 (PI) Active model-experiment integration with Ecological Patform for Assimilating Data with models to make near-time forecasting at SPRUCE.
59. 2015-2018. DOE, $1,500,000 (Co-PI, PI: Ted Schuur, Northern Arizona University) Multifactor Experiment and Model Integration to Determine the Regional Vulnerability of Permafrost Carbon to Climate Change (OU portion, $296,438)
58. 2015-2016. US Carbon Cycle Science Program Office $50,000 (PI) Workshop on "Development of Predictive Carbon Cycle Science"
57. 2015-2018. NASA $476,912 (Co-PI, PI: S. Crowell), Improved Parameterization of Carbon Cycle Models Across Scales Using OCO-2 Measurements of XCO2 and SIF
56. 2015-2016. USGS South Central Climate Sceince Center, $83,410 (PI), Ecosystem Modeling in the South Central US: A Synthesis of Current Models toward the Developments of Coupled Models
55. 2013-2018. NSF, $20,000,000 (Co-I, PI: J.P. Wicksted), Adapting Socio-ecological Systems to Increased Climate Variability
54. 2013-2016. DOE, $3,634,008 (Co-PI, PI: J. Zhou), From Structure to Functions: Metagenomics- Enabled Predictive Understanding of Soil Microbial Feedbacks to Climate Change
53. 2012-2015. National Institute for Mathematical and Biological Synthesis (NIMBioS) (lead organizer) Nonautonamous system and terrestrial carbon cycle.
52. 2013-2016. Australian Research Council, A$460,000. (Co-I, PI: Tianhua He, Curtin University) Keeping pace with a changing climate: can Australian plants count on rapid evolution?
51. 2012-2014. DOE, $850,000 (Co-PI, PI: Rich Norby, ORNL) Model-Data Synthesis of Terrestrial Responses to Elevated CO2: Phase 2 of an ongoing collaboration between ecosystem and global modelers and empirical scientists from long-term CO2 enrichment experiments
50. 2012-2015. DOE Terrestrial Ecosystem Sciences, $1,050,000 (Principal Investigator). Data Synthesis and Data Assimilation at Global Change Experiments and FLUXNET toward Improving Land Process Models
49. 2012-2017. NSF Macrosystems Biology. $3,758,556 (Co-PI, PI: Alan Knapp, Colorado State University) Grassland sensitivity to climate change at local to regional scales: assessing the role of ecosystem attributes vs. environmental context (OU portion: $499,325)
48. 2011-2012. DOE. $50,000 (Principle Investigator): Workshop: Strategies to Promote Integrated Experiment-Model Approaches to Terrestrial Ecosystem Study. (Managed through ORISE)
47. 2011-2014. DOE. $1,024,426 (Co-PI, PI: Ted Schuur, University of Florida) Effects of Warming the Deep Soil and Permafrost on Ecosystem Carbon Balance in Alaskan Tundra: A Coupled Measurement and Modeling Approach. (Subcontract to University of Oklahoma: $225,000)
46. 2010-2012. U.S. Civilian Research & Development Foundation. $90,000 (Principal investigator) Nonlinear response of a Ukraine grassland to altered precipitation.
45. 2010-2013. DOE. $3,000,000 (Co-PI, PI: Jizhong Zhou) From Community Structure to Functions: Metagenomics-Enabled Predictive Understanding of Temperature Sensitivity of Soil Carbon Decomposition to Climate Warming.
44. 2009-2012. The State of Oklahoma, Regents for Higher Education $300,000 (match) (Co-PI and PI: Paul Risser) "Collaborative Research: EPSCoR RII Track 2 Oklahoma and Kansas: A cyberCommons for Ecological Forecasting"
43. 2009-2012. NSF EPSCoR $6,000,000 (Co-PI and lead scientist for Oklahoma, PI: Paul Risser) "Collaborative Research: EPSCoR RII Track 2 Oklahoma and Kansas: A cyberCommons for Ecological Forecasting"
42. 2009-2012. NSF $1,079,454 (Principal Investigator): Development of a Data Assimilation Capability towards Ecological Forecasting in a Data-Rich Era

41. 2009-2010. Oklahoma Bioenergy Center $250,000 (Co-PI, PI: Liyou Wu) System-level understanding the factors controlling feedstock productivity and sustainability.
40. 2009-2010. NSF $13,000 and DOE $15,000 (Principal Investigator): DOE-NSF Workshop: Coordinated Approaches to Address Long-Term Issues in Global Change Experiments
39. 2009-2014. NSF $500,000 (Principal Investigator): RCN: **F**orecasts **O**f **R**esource and **E**nvironmental **C**hanges: data **A**ssimilation **S**cience and **T**echnology (FORECAST)
38. 2008-2010. NCEAS (National Center for Ecological Analysis and Synthesis) $86,400 (Co-PI, PI: Richard Norby, Oak Ridge National laboratory), Benchmarking Ecosystem Response Models with Experimental Data from Long-term CO2 Enrichment Experiments.
37. 2008-2009. University of Oklahoma College Center Investment Fund $55,000 (PI). Center for Ecological Forecasting and Data Assimilation (CEFDA)
36. 2008-2010. State of Oklahoma $380,838 (Co-PI, PI: J. Zhou) Linking community structure to functions: Metagenomic analysis of Feedstock-Related Microbial Communities using GeoChip and Pyrosequencing
35. 2008-2013. NSF $450,000 (Principal Investigator) LTREB: Effects of Warming and Clipping on Coupling of Carbon and Water Cycles in a Tallgrass Prairie (REU supplement, $7,160, 2011; REU supplement, $6,240, 2013)
34. 2008-2011. DOE NICCR (National Institute of Climate Change Research) $388,141 (Principal Investigator) Experimental and modeling study of interactive effects of warming and altered precipitation on function and structure of a tallgrass prairie in the Great Plains.
33. 2007-2011. EPA. $899,091. (Co-PI, PI: D. Obrist, Desert Research Institute) Effects of Global Change on the Atmospheric Hg Burden and Atmospheric Hg Sequestration through Changes in Ecosystem Carbon Pools.
32. 2007-2008. Bridge fund, Vice President of Research Office, University of Oklahoma, $22,158.
31. 2007-2008. NSF. $48,000 (Principal Investigator). Workshop: Data-Model Assimilation in Ecology: Techniques and Applications.
30. 2006-2010. DOE. $975,000 (Principal Investigator). Data-Model Assimilation at the FACE and AmeriFlux Sites Toward Predictive Understanding of Carbon Sequestration at Ecosystem and Continental Scales
29. 2005-2006. Europe Union Science Foundation, 143,100€ EURO's (Co-I) EPRECOT: Effects of PREcipitation Change on Terrestrial ecosystems – a workshop and networking activity. (PI: Claus Beier, RISOE National Laboratory, Denmark).
28. 2005-2006. DOE. $260,000 (Principal Investigator). Data-Model Assimilation at the Duke FACE Site Toward Predictive Understanding of Carbon Sequestration at Ecosystem and Regional Scales
27. 2005-2008 NSF. $260,000 (Principal Investigator) Data-Model Fusion at AmeriFlux Sites: Towards Predictive Understanding of Seasonal and Interannual Variability in Net Ecosystem Exchange.
27. 2004-2008. Vice President of Research Fund, University of Oklahoma, $66,308.
26. 2003-2008. China's Ministry of Education, Chinese Yuan ¥1,000,000 (□USD $121,000) (Principal Investigator). Development of a research program at Fudan University and execution of relevant research projects.
25. 2003-2005. DOE Office of Fossil Energy, 1,600,000 (Co-I) Carbon Sequestration Regional Partnerships: Southwest Regional Partnership for Carbon Sequestration. (PI: Brian McPherson, New Mexico Institute of Mining and Technology).
24. 2003-2004. National Institute of Global Environmental Change, DOE, $108,927. (Principal Investigator) Interannual Variability in Net Ecosystem Exchange in Colorado Subalpine Forest: Partitioning into Causes between Climatic Variability and Functional Changes
23. 2001-2005. DOE. $981,565 (Principal Investigator). Modeling Studies in the Duke Forest Free-Air CO2 Enrichment (FACE) program.
22. 2001-2006. NSF. $499,997 (Co-I) Research Coordination Network: Terrestrial Ecosystem

Responses to Atmospheric and Climate Change. (PI: L. Rustad. USDA Forest Service)

21. 2000-2003. National Center of Ecological Analysis and Synthesis (NCEAS). $38,000. (Principal Investigator) Progressive Nitrogen Limitation of Plant and Ecosystem Responses to Elevated CO_2.
20. 2000-2005. NSF Integrated Research Challenge in Environmental Biology. $3,000,000. (Co-PI) IRCEB: Interannual climate variability and ecosystem processes – A quantitative assessment combining modeling with field and mesocosm experiments. (PI: J. Arnon III, Desert Research Institute)
19. 2000-2003. National Institute of Global Environmental Change, DOE, $349,000. (Principal Investigator) Modeling Studies of Forest/Atmosphere Carbon Fluxes in a Colorado Subalpine Ecosystem.
18. 2000-2001. Oklahoma NASA EPSCoR, $28,527. (Principal Investigator) Human Impacts on Ecosystem Biodiversity and Functions: Development of Partnerships with NASA Goddard Space Flight Center
17. 1998-2001. TECO (Terrestrial Ecosystem and Global Change), a NSF/DOE/ NASA/USDA/NOAA joint program through DOE. $696,693 (Principal Investigator) Transient responses in ecosystem Free-Air CO_2 Enrichment (FACE) experiments and a deconvolution analysis.
16. 1998-2001. DOE. $2,850,017 (Co-PI) Forest-Atmosphere Carbon Transfer and Storage (FACTS- I): Continuation. (PI: W. Schlesinger, Duke University)
15. 1999-2000. University of Oklahoma Research Council, $9,995 (Principal Investigator). Effects of global warming on ecosystem structure and function: Establishing a field experiment to collect preliminary data.
14. 1997-2000. Andrew Mellon Foundation and Desert Research Institute. $500,000 (Co-PI). A mesocosm study of ecosystem N dynamics. (PI: J. Coleman, Desert Research Institute).
13. 1998-99. US Forest Service. $1,000,000 (Co-PI) Integrative assessments on the forest watershed in Lake Tahoe Basin.
12. 1998. Nevada Applied Research Initiative. $30,012 (Principal investigator). Watershed research in the Lake Tahoe Basin.
11. 1997. The Canada Center of Remote Sensing. CND$5,000. (Principal Investigator) Quantification of carbon sink in Canada land area.
10. 1997-98. DOE. $100,000 (Co-PI) Continuation of CMEAL (CO_2 Models/Experiments Activity for improved Links) project. (PI: C.B. Field, Carnegie Institution of Washington)
9. 1996-98. Desert Research Institute $13,551 (Principal Investigator) Global terrestrial carbon sink and its spatial distribution
8. 1996-97. DOE EPSCoR $400,000 (Co-PI) Responses of desert vegetation to elevated atmospheric carbon dioxide: The NTS desert FACE facility. (PI: J.S. Seemann, the University of Nevada, Reno).
7. 1995-98. DOE. $2,455,000 (Co-PI) Forest-Atmosphere Carbon Transfer and Storage (FACTS-I): The Duke Forest FACE (Free Air CO_2-Enrichment) experiment. (PIs: W. Schlesinger, Duke University, and G. Hendrey, Brookhaven National Laboratory).
6. 1995-97. DOE. $300,000 (Co-PI) CMEAL: CO_2 Models/Experiments Activity for improved Links. (PI: C.B. Field, Carnegie Institution of Washington).
5. 1995-98. NSF $415,000 (Co-PI) Effects of elevated CO_2 on a Mojave desert ecosystem (PI: S.D. Smith, University of Nevada, Las Vegas).
4. 1995-96. USDA and Cornell University. $10,000 (Co-PI) Workshop: Plant acclimation to elevated CO_2 .(PI: D. Wolfe, Cornell University).
3. 1994-97. DOE and Electric Power Research Institute (EPRI). $1,400,000 (Co-PI). Continuation of Experimental Work on Forest Response to CO_2. (PI: J.T. Ball, Desert Research Institute).
2. 1994-96. USDA. $107,000 (Principal Investigator). Test of a model predicting photosynthetic responses to elevated CO_2.

1. 1982-85. Agriculture and Forestry Department of Jiangsu Province, China. 15,000 Chinese Yuan. Quantitative genetic studies of corn and wheat.

PUBLICATIONS

Books

7. Luo, Y. and B. Smith, (Eds) 2024. *Land Carbon Cycle Modeling: Matrix Approach, Data Assimilation, Ecological Forecasting, and Machine Learning*. 2nd edition, CPC Press, Taylor & Francis Group, LLC, Boca Raton, Florida, Pp 312. https://doi.org/10.1201/9781032711126
6. Luo, Y. and B. Smith, (Eds) 2022. *Land Carbon Cycle Modeling: Matrix Approach, Data Assimilation, & Ecological Forecasting*. CPC Press, Taylor & Francis Group, LLC, Boca Raton, Florida, Pp 382. https://doi.org/10.1201/9780429155659.
5. Luo, Y. and X. Zhou. 2006. *Soil Respiration and the Environment*. Academic Press/Elsevier, San Diego. Pp 328. (Translated to Chinese published in 2007 by Higher Education Press, Beijing)
4. Li B, Zhao B, Peng RH, Luo Y. et al. 2005. Translation of book *Principles of Terrestrial Ecosystem Ecology* by Chapin FS, Matson PA, and Mooney HA from English to Chinese. Higher Education Press, Beijing, China.
3. Luo, Y. and H.A. Mooney. (Eds.) 1999. *Carbon Dioxide and Environmental Stress*. Academic Press, San Diego. Pp 418.
2. Mo, H., J. Chang, Y. Luo, J. Kua. 1984. Translation of book *Principles of Crop Improvement* by N.W. Simmonds from English to Chinese. Jiangsu Science & Technology Press, China.
1. Luo, Y. 1983. A Textbook *Agricultural Experimentation: Design and Analysis*. 137p. Jiangsu Agricultural College, China.

Book chapters/encyclopedia essays

39. Luo YQ, EQ Hou, K Wilcox, Y Zhou, J Rudgers, S Collins, M Litvak, W Pockman, K Hall 2026. Chapter 12. Smart model-experiment integration to accelerate discovery in ecological research. In *Climate Change in Dryland Ecosystems,* (eds. J. Rudgers and S. Collins). Oxford University Press
38. Hui, D., Q. Deng, H. Tian, Y. Luo. 2025. Effects of climate-smart agriculture on greenhouse gas emissions in croplands. Pp 35-80. In Lackner, M., Sajjadi, B. and Chen, W.Y. (Eds.) *Handbook of Climate Change Mitigation and Adaptation*. Cham: Springer International Publishing, https://doi.org/10.1007/978-1-4614-6431-0_13-4.
37. Luo, Y. 2024. Chapter 11 Evaluation of nature-based climate solutions with the carbon cycle diagnostics. In. *Land Carbon Cycle Modeling: Matrix Approach, Data Assimilation, Ecological Forecasting, and Machine Learning*. 2nd edition, (eds. Y. Luo and B. Smith). 2024. CPC Press, Taylor & Francis Group, LLC, Boca Raton, Florida,
36. Tao F & Y. Luo. 2022. Chapter 37 PROcess-guided deep learning and DAta-driven modeling (PRODA). In. *Land Carbon Cycle Modeling: Matrix Approach, Data Assimilation, & Ecological Forecasting*. (eds. Y. Luo and B. Smith). Pp. 319-328. CPC Press, Taylor & Francis Group, LLC, Boca Raton, Florida. (Chapter 38 in 2nd edition published in 2024, Pp. 245-252)
35. Luo, Y. 2022. Chapter 33 Introduction to ecological forecasting. In. *Land Carbon Cycle Modeling: Matrix Approach, Data Assimilation, & Ecological Forecasting*. (eds. Y. Luo and B. Smith). Pp. 287-292. CPC Press, Taylor & Francis Group, LLC, Boca Raton, Florida. (Chapter 29 in 2nd edition published in 2024)
34. Luo, Y. 2022. Chapter 21 Data assimilation: Introduction, procedure, and applications. In. *Land Carbon Cycle Modeling: Matrix Approach, Data Assimilation, & Ecological Forecasting*. (eds. Y. Luo and B. Smith). Pp. 173-180. CPC Press, Taylor & Francis Group, LLC, Boca Raton, Florida. (Chapter 21 in 2nd edition published in 2024)
33. Luo, Y. and Forrest Hoffman 2022. Chapter 19 Benchmark Analysis. In. *Land Carbon Cycle Modeling: Matrix Approach, Data Assimilation, & Ecological Forecasting*. (eds. Y. Luo and B.

Smith). Pp. 157-162. CPC Press, Taylor & Francis Group, LLC, Boca Raton, Florida. (Chapter 19 in 2nd edition published in 2024)

32. Luo, Y. 2022. Chapter 9 Unified diagnostic system for uncertainty analysis. In. *Land Carbon Cycle Modeling: Matrix Approach, Data Assimilation, & Ecological Forecasting*. (eds. Y. Luo and B. Smith). Pp. 3-12. 73-78. CPC Press, Taylor & Francis Group, LLC, Boca Raton, Florida. (Chapter 9 in 2nd edition published in 2024)
31. Luo, Y. 2022. Chapter 1 Theoretical foundation of the land carbon cycle and matrix approach. In. *Land Carbon Cycle Modeling: Matrix Approach, Data Assimilation, & Ecological Forecasting*. (eds. Y. Luo and B. Smith). Pp. 3-12. CPC Press, Taylor & Francis Group, LLC, Boca Raton, Florida. (Chapter 1 in 2nd edition published in 2024)
30. Hui DF, Q Deng, HQ Tian, and YQ Luo. 2022. Global Climate Change and Greenhouse Gases Emissions in Terrestrial Ecosystems. in M. Lackner et al. (eds.), *Handbook of Climate Change Mitigation and Adaptation*, Springer, Cham, https://doi.org/10.1007/978-1-4614-6431-0_13-3.
29. Jiang LF, JJ Shao, Z Shi, XH Zhou, ZH Zhou, and YQ Luo. 2019. Chapter 13: Responses of Grasslands to Experimental Warming. In: *Ecosystem Consequences of Soil Warming: Microbes, Vegetation, Fauna and Soil Biogeochemistry* (ed Mohan JE). Elsevier Press, Cambridge, U.S. pp. 347-384.
28. Huntzinger, D. N., A. Chatterjee, D. J. P. Moore, S. Ohrel, T. O. West, B. Poulter, A. P. Walker, J. Dunne, S. R. Cooley, A. M. Michalak, M. Tzortziou, L. Bruhwiler, A. Rosenblatt, Y. Luo, P. J. Marcotullio, and J. Russell, 2018: Chapter 19: Future of the North American carbon cycle. In *Second State of the Carbon Cycle Report (SOCCR2): A Sustained Assessment Report* [Cavallaro, N., G. Shrestha, R. Birdsey, M. A. Mayes, R. G. Najjar, S. C. Reed, P. Romero-Lankao, and Z. Zhu (eds.)]. U.S. Global Change Research Program, Washington, DC, USA, pp. 760- 809, https://doi.org/10.7930/SOCCR2.2018.Ch19.
27. Hui DF, Q Deng, HQ Tian, and YQ Luo. 2017. Climate Change and Carbon Sequestration in Forest Ecosystems. Pp. 555-594 in book Handbook of Climate Change Mitigation and Adaptation, WY Chen et al. (eds.), Springer Science+Business Media New York 2015 1 DOI 10.1007/978-1-4614-6431-0_13-2.
26. Jiang LF, J Jiang, JY Liang, KR Wilcox, SL Collins, AK Knapp, WT Pockman, MD Smith, and YQ Luo. 2017. Frontiers of ecosystem modeling and large scale experiments. In book: *Terrestrial Ecosystem Research Infrastructures Challenges, New developments and Perspectives* edited by Abad Chabbi and Hank Loescher, CPR, Talor and Francis.
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335. Donghai Wu, Philippe Ciais, Nicolas Viovy, Alan Knapp, Kevin Wilcox, Michael Bahn, Melinda Dianne Smith, Akihiko Ito, Almut Arneth, Anna B. Harper, Anna Ukkola, Athanasios Paschalis, Benjamin Poulter, Changhui Peng, Christian H. Reick, Daniel J Hayes, Daniel M Ricciuto, David Reinthaler, Guangsheng Chen, Hanqin Tian, Genet Helene, Jakob Zscheischler, Jiafu Mao, Johannes Ingrisch, Julia Nabel, Julia Pongratz, Lena Boysen, Markus Kautz, Michael Schmitt, Michaela Krohn, Ning Zeng, Patrick Meir, Qian Zhang, Qiuan Zhu, Roland Hasibeder, Sara Vicca, Sebastian Sippel, Shree R.S. Dangal, Simone Fatichi, Stephen Sitch, Xiaoying Shi, Yingping Wang, Yiqi Luo, Yongwen Liu and Shilong Piao. 2017. Asymmetric Responses of Primary Productivity to Altered Precipitation Simulated by Land Surface Models across Three Long-term Grassland Sites, AGU Fall Meeting, December 11-15, 2017, New Orleans, LA
334. Yiqi Luo, Jianyang Xia, Anders Ahlström, Sha Zhou, Yuanyuan Huang, Zheng Shi, Yingping Wang, Zhenggang Du and Xingjie Lu. 2017. Matrix approach to uncertainty assessment and reduction for modeling terrestrial carbon cycle, AGU Fall Meeting, December 11-15, 2017, New Orleans, LA
333. Kun Huang, Jianyang Xia, Yingping Wang, Anders Ahlström, Christopher Schwalm, Deborah N Huntzinger, Jiquan Chen, Robert B Cook, Yuanyuan Fang, Joshua B Fisher, Andrew R Jacobson, Anna Michalak, Kevin M Schaefer, Yaxing Wei, Liming Yan and Yiqi Luo. 2017. Enhanced vegetation growth peak and its key mechanisms, AGU Fall Meeting, December 11-15, 2017, New Orleans, LA
332. Qianyu Li, Yiqi Luo, Xingjie Lu, Yingping Wang, Xin Huang and Guanghui Lin. 2017. LAI is the major cause of divergence in CO_2 fertilization effect in land surface models, AGU Fall Meeting, December 11-15, 2017, New Orleans, LA
331. Guanghui Lin, Xiaowei Cui, Weixiu Gan, Weizhi LU, Guirui Yu and Yiqi Luo. 2017. Stronger ecosystem CO_2 exchange capacity but higher lateral carbon loss of mangrove wetlands over terrestrial forests, AGU Fall Meeting, December 11-15, 2017, New Orleans, LA
330. Zhao Li, Jianyang Xia, Anders Ahlström, Annette Rinke, Charles Koven, Daniel J Hayes, Duoying Ji, Geli Zhang, Gerhard Krinner, Guangsheng Chen, Jinwei Dong, Junyi Liang, John Moore, Lifen Jiang, Liming Yan, Philippe Ciais, Shushi Peng, Yingping Wang, Xiangming Xiao, Zheng Shi, Anthony David McGuire and Yiqi Luo. 2017. Recent slowdown of atmospheric CO_2 amplification due to vegetation-climate feedback over northern lands, AGU Fall Meeting, December 11-15, 2017, New Orleans, LA
329. Shuang Ma, Yuanyuan Huang, Jiang Jiang, Daniel M Ricciuto, Paul J Hanson and Yiqi Luo. 2017. Acclimation of methane production weakens ecosystem response to climate warming in a northern peatland, AGU Fall Meeting, December 11-15, 2017, New Orleans, LA
328. Lifen Jiang, Zheng Shi, Jianyang Xia, Junyi Liang, Xingjie Lu, Ying Wang and Yiqi Luo. 2017. Transient traceability analysis of land carbon storage dynamics: procedures and its application to two forest ecosystems, AGU Fall Meeting, December 11-15, 2017, New Orleans, LA
327. Chang Gyo Jung, Lifen Jiang and Yiqi Luo. 2017. Ecosystem response to climatic variables – air temperature and precipitation: How can these variables alter plant productions in C_4-grass dominant ecosystem? AGU Fall Meeting, December 11-15, 2017, New Orleans, LA
326. Guopeng Liang, Kevin Wilcox, Jennifer Rudgers, Marcy E Litvak, Seth D Newsome, Scott L Collins, William Pockman and Yiqi Luo. 2017. Modeled Carbon Cycle Responses to Altered Precipitation Amount and Interannual Variation in Desert Grassland, AGU Fall Meeting, December 11-15, 2017, New Orleans, LA
325. Andrea Lopez1, Scott L. Collins2, Juan Piñeiro Nevado3, Melinda D. Smith4, Alan K. Knapp5, William T. Pockman2 and Yiqi Luo. 2017. A modern approach to conceptualize the effect of drought on the decomposition rate of six North American grasslands. 102nd ESA Annual Meeting, August 6-11, Portland, OR
324. Dafeng Hui1, Chih-Li Yu1, Qi Deng1, Sadiye Aras1, E. Kudjo Dzantor2, Philip A. Fay3, Weijun Shen4 and Yiqi Luo. 2017. Responses of switchgrass to precipitation changes: Nonlinear and asymmetric? . 102nd ESA Annual Meeting, August 6-11, Portland, OR

323. Mianhai Zheng1, Wei Zhang1, Yiqi Luo2, Shiqiang Wan3, Shenglei Fu4 and Jiangming Mo. 2017. Asymbiotic nitrogen fixation in response to canopy versus understory nitrogen addition in forest ecosystems. 102nd ESA Annual Meeting, August 6-11, Portland, OR
322. Yiqi Luo, Ji Chen, Yizhao Chen. 2017. Data-driven microbial modeling for soil carbon dynamics under climate warming and nitrogen deposition. 102nd ESA Annual Meeting, August 6-11, Portland, OR
321. Karen Castillioni1, Kevin R. Wilcox2, Lifen Jiang1, Yiqi Luo1 and Lara Souza. 2017. How does acute vs. chronic disturbance influence plant community in the temperate prairie? . 102nd ESA Annual Meeting, August 6-11, Portland, OR
320. Chang Gyo Jung, Lifen Jiang and Yiqi Luo, Warming exacerbated impact of extreme drought on carbon cycle in tallgrass prairie. 102nd ESA Annual Meeting, August 6-11, Portland, OR
319. Yiqi Luo. 2017. Does nitrogen limit CO_2 fertilization effects? 102nd ESA Annual Meeting, August 6-11, Portland, OR
318. Melinda Dianne Smith, Kevin Wilcox, Osvaldo Sala, Richard Phillips, Yiqi Luo, Alan Knapp and Nathan P Lemoine Drought-Net: A global network merging observations, experiments, and modeling to forecast terrestrial ecosystem sensitivity to drought. AGU Fall Meeting, December 12-16, 2016, San Francisco, CA
317. Yuanyuan Huang, Jiang Jiang, Mark Stacy, Daniel M Ricciuto, Paul J Hanson, Nilutpal Sundi and Yiqi Luo Near Real-time Ecological Forecasting of Peatland Responses to Warming and CO_2 Treatment through EcoPAD-SPRUCE. AGU Fall Meeting, December 12-16, 2016, San Francisco, CA
316. Junyi Liang, Edward Schuur, Yiqi Luo, James R Cole, Lifen Jiang, Konstantinos Konstantinidis, Marguerite Mauritz, Susan Natali, Elaine Pegoraro, C. Ryan Penton, César Plaza, Verity G Salmon, Zheng Shi, James M. Tiedje, Liyou Wu, Jianyang Xia and Jizhong Zhou, 2016. Accelerated soil carbon loss by biological changes under warming in Alaskan tundra. AGU Fall Meeting, December 12-16, 2016, San Francisco, CA
315. Zheng Shi, Sean Crowell, Berrien Moore III, Yiqi Luo and Peter J Rayne 2016. Parameterization and model structures cause uncertainty in soil carbon dynamics. AGU Fall Meeting, December 12-16, 2016, San Francisco, CA
314. Forrest M. Hoffman, Min Xu, Nathan Collier, Chonggang Xu, Bradley O Christoffersen, Yiqi Luo, Daniel M Ricciuto, Paul A. Levine and James Randerson 2016. Development of a tropical ecological forecasting strategy for ENSO based on the ACME modeling framework. AGU Fall Meeting, December 12-16, 2016, San Francisco, CA
313. Robert James Griffin-Nolan, Scott L Collins, Alan Knapp, Yiqi Luo, William Pockman and Melinda Dianne Smith. 2016. Unexpected Drought Legacy Effects in Six North American Grasslands. AGU Fall Meeting, December 12-16, 2016, San Francisco, CA
312. Benjamin N Sulman, Jessica Moore, Colin Averill, Rose Z Abramoff, Mark Bradford, Aimee T Classen, Melannie Diane Hartman, Stephanie N. Kivlin, Yiqi Luo, Melanie A Mayes, Eric W Morrison, William J Riley, Alejandro Salazar, Joshua Schimel, Bhavya Sridhar, Jinyun Tang, Gangsheng Wang and William R Wieder 2016. Key Process Uncertainties in Soil Carbon Dynamics: Comparing Multiple Model Structures and Observational Meta-analysis. AGU Fall Meeting, December 12-16, 2016, San Francisco, CA
311. Yuting Zhou, Xiangming Xiao, Pradeep Wagle, Rajen Bajgain, Hayden Ray Mahan, Jeffrey B Basara, Jinwei Dong, Yuanwei Qin, Geli Zhang, Yiqi Luo, Jean L. Steiner, Prasanna H Gowda and James P.S. Neel 2016. Detecting the fingerprints of complex land management practices in a tallgrass prairie site using PhenoCam, satellite remote sensing, and the eddy covariance technique. AGU Fall Meeting, December 12-16, 2016, San Francisco, CA
310. Manoj Kc, Kim Winton, Michael A Langston and Yiqi Luo 2016. Benchmarking Terrestrial Ecosystem Models in the South Central US. AGU Fall Meeting, December 12-16, 2016, San Francisco, CA

309. Chang Gyo Jung, Fei Peng and Yiqi Luo 2016. Leaf Respiratory Acclimation: Magnitude of Acclimation to the Long-term Warming in Tallgrass Prairie. AGU Fall Meeting, December 12-16, 2016, San Francisco, CA
308. Kevin Wilcox, Scott L Collins, Alan Knapp, William Pockman, Melinda Dianne Smith and Yiqi Luo 2016. Simultaneously Assessing Climate and Vegetation Drivers of Carbon Residence Time and Net Primary Productivity across Six US Grasslands. AGU Fall Meeting, December 12-16, 2016, San Francisco, CA
307. Jianyang Xia, Yiqi Luo, Anthony Walker, Martin G. De Kauwe, Kristina Luus, Anna B. Harper, Bertrand Guenet, Christiane Werner, Xinjie Lu, Junyi Liang, Lifen Jiang, Ensheng Weng, Belinda E. Medlyn, Sönke Zaehle, Philippe Ciais, Yingping Wang and Richard Norby, Diagnosing model uncertainty on terrestrial carbon cycle with field manipulative experiments. 101th ESA Annual Meeting (August 7-12, 2016), Ft Lauderdale, FL
306. Shuang Ma, Jiang Jiang, and Yiqi Luo, Impacts of seasonal changes in precipitation on carbon sequestration in a tallgrass prairie. 101th ESA Annual Meeting (August 7-12, 2016), Ft Lauderdale, FL
305. Rosvel Bracho, Edward A. G. Schuur, E. F. Pegoraro, Cesar Plaza, Lauren Hale, Konstantinos Konstantinidis, Liyou Wu, Jizhong Zhou, Yiqi Luo and James Tiedje, Temperature sensitivity of organic matter decomposition of permafrost-region soils during laboratory incubations. 101th ESA Annual Meeting (August 7-12, 2016), Ft Lauderdale, FL
304. Zhao Li, Jianyang Xia, Geli Zhang, Junyi Liang, Zheng Shi, Jinwei Dong, Lifen Jiang, Xiangming Xiao, Yiqi Luo and Liming Yan Shifted warming seasons led to slow down of plant growth increase over northern lands. 101th ESA Annual Meeting (August 7-12, 2016), Ft Lauderdale, FL
303. Yiqi Luo, At the interface of microbial genomics and biogeochemistry. 101 th ESA Annual Meeting (August 7-12, 2016), Ft Lauderdale, FL
302. Sebastian Leuzinger, Claus Beier, Christian Körner, Yiqi Luo, Sara Vicca, J. Adam Langley, and Mark Hovenden, You can add up the parts, but you won't have the sum: Can many global change experiments tell us more than the individual ones? 101th ESA Annual Meeting (August 7-12, 2016), Ft Lauderdale, FL
301. Chang Gyo Jung, Junyi Liang, and Yiqi Luo, Response of carbon fluxes under long-term warming, and its relationship with plant biomass. 101th ESA Annual Meeting (August 7-12, 2016), Ft Lauderdale, FL
300. Jiang Jiang, Mark Stacy, Yiqi Luo, Daniel Ricciuto, Paul Hanson, Interactive ModEx, SPRUCE All Hands Meeting, St Paul Minneapolis, May 10 & 11, 2016
299. Yiqi Luo, A theory of terrestrial carbon storage dynamics and its applications, DOE, PI meeting, the 2016 Environmental System Science (ESS) PI Meeting, Potmac, MD. April 26-27, 2016.
298. Yiqi Luo. The Third Dimension of Carbon Cycle Dynamics, EcoMunch, OU, Feburary 24, 2016.
297. L Jiang, J Liang, Y Luo. Carbon Residence Time Explains Changes in Predicted 21st Century Vegetation Carbon across CMIP5 Earth System Models. AGU Fall Meeting, December 14-18, 2015, San Francisco, CA
296. J Xia, R Norby, A Walker, M D Kauwe, K. Luus, A Harper, X Lu, B Guenet, B Medlyn, S. Zaehle, C Werner, Z Shi, L Jiang, J Liang, L Lei, S Wan, Y Wang, E Weng, P Ciais, Y Luo. Diagnosing Model Uncertainty on Terrestrial Carbon Cycle with Field manipulative experiments. AGU Fall Meeting, December 14-18, 2015, San Francisco, CA
295. Q Deng, D Hui, Y Luo, J Elser, Y Wang, I Loladze, Q Zhang, S Dennis, Down-regulation of tissue N:P ratios in terrestrial plants by elevated CO2. AGU Fall Meeting, December 14-18, 2015, San Francisco, CA
294. A Ahlstrom, J Xia, A Arneth, Y Luo, B Smith, Importance of vegetation distribution for future carbon balance. AGU Fall Meeting, December 14-18, 2015, San Francisco, CA

293. Y Luo, Z Shi, L Jiang, J Xia, Y Wang, M KC, J Liang, X Lu, S Niu, A Ahlstrom, O Hararuk, A Hastings, F Hoffman, B Medlyn, M Rasmussen, M Smith, K Todd-Brown, Y Wang, Terrestrial carbon storage dynamics: Chasing a moving target. AGU Fall Meeting, December 14-18, 2015, San Francisco, CA
292. Z Shi, S Crowell, Y Luo, P Rayner, B Moore, Column Carbon Dioxide and Biometric Data Jointly Constrain Parameterization and Projection of a Global Land Model. AGU Fall Meeting, December 14-18, 2015, San Francisco, CA
291. Y Luo. The big data-big model (BDBM) challenges in ecological research. AGU Fall Meeting, December 14-18, 2015, San Francisco, CA
290. X. Xiao, Y. Zhang, S. Zhou, H. McCarthy, P Ciais, Y. Luo. Vegetation canopy and physiological control of GPP decline during drought and heat wave. AGU Fall Meeting, December 14-18, 2015, San Francisco, CA
289. Y Luo. Dynamic Equilibrium and Disequilibrium Components of the Terrestrial Carbon Cycle. 20th Annual Community Earth System Model (CESM) Workshop, Breckenridge, Colorado, June 15-18, 2015
288. Yiqi Luo, Trevor F. Keenan, Matthew Smith. Predictability of the terrestrial carbon cycle, DOE PI meeting, Environmental System Science PI meeting, Potomac MD, April 28-29, 2015
287. Xue Guo, Xishu Zhou, Mengting Yuan, Zhou Shi, Liyou Wu, Zhili He, Joy D. Van Nostrand, Lauren Hale, Qichao Tu, Jie Deng, Jianjun Wang, Zhenxing Li, Tong Yuan, Yiqi Luo, Jizhong Zhou, 2015. Successional dynamics of grassland microbial communities in response to warming, precipitation alternation and clipping. 100th ESA Annual Meeting (August 9 - 14, 2015), Baltimore, MD
286. Yingping Wang, Jiang Jiang, Benito Chen-Charpentier, Fola B. Agusto, Alan Hastings, Forrest M. Hoffman, Martin Rasmussen, Katherine Todd-Brown, Matthew Smith, Ying Wang, Xia Xu, Yiqi Luo, 2015. What determines the sensitivities of the simulated soil carbon to warming and substrate priming in three different soil carbon models? 100th ESA Annual Meeting (August 9 - 14, 2015), Baltimore, MD
285. Jizhong Zhou, Mengting Yuan, Cong Wang, Xue Guo, Katherine Todd-Brown, Liyou Wu, Zhili He, Kostas Konstantinidis, Yiqi Luo, Edward A. G. Schuur, James R. Cole, James M. Tiedje, 2015. Feedback responses of soil microbial communities to climate warming. 100th ESA Annual Meeting (August 9 - 14, 2015), Baltimore, MD
284. Eric Johnston, Chengwei Luo, Luis Rodriguez-R, Liyou Wu, Yiqi Luo, Edward Schuur, James Tiedje, Jizhong Zhou, Kostas Konstantinidis, 2015. Soil microbial community responses to warming as revealed by comparative metagenomics. 100th ESA Annual Meeting (August 9 - 14, 2015), Baltimore, MD
283. Wenting Feng, Jizhong Zhou, James M. Tiedje, Konstantinos Konstantinidis, Edward A. G. Schuur, Yiqi Luo, 2015. Does microbial community affect soil organic carbon decomposition directly across ecosystems? 100th ESA Annual Meeting (August 9 - 14, 2015), Baltimore, MD
282. Ying Wang, Yiqi Luo, Alan Hastings, Martin Rasmussen, Yingping Wang, 2015. Nonautonomous systems: Mathematical properties and ecological applications. 100 th ESA Annual Meeting (August 9 - 14, 2015), Baltimore, MD
281. Forrest M. Hoffman, Matthew Smith, Katherine Todd-Brown, Yiqi Luo, Yingping Wang, 2015. Explaining the sources of variation in CMIP5 models by fitting reduced complexity models to their simulation outputs. 100th ESA Annual Meeting (August 9 - 14, 2015), Baltimore, MD
280. Junyi Liang, Lifen Jiang, Jianyang Xia, Ying Wang, Yiqi Luo, 2015. Diagnosing the uncertainty of Earth system models using a traceability framework. 100th ESA Annual Meeting (August 9 - 14, 2015), Baltimore, MD
279. Yiqi Luo, 2015. Terrestrial carbon cycle: Ecological and mathematical properties. 100th ESA Annual Meeting (August 9 - 14, 2015), Baltimore, MD

278. Jiang Jiang, Yiqi Luo, Alan Hastings, 2015. General applications of nonautonomous system theory to ecological research. 100th ESA Annual Meeting (August 9 - 14, 2015), Baltimore, MD
277. Alan Hastings, Martin Rasmussen, Ying Wang, Yiqi Luo, 2015. Residence time and turnover times in a changing environment. 100th ESA Annual Meeting (August 9 - 14, 2015), Baltimore, MD
276. Katie Stuble, Kaitlin Bacon, Marie-Anne de Graaff, Yiqi Luo, Aimee Classen, Lara Souza, 2015. Above and belowground impacts of climatic warming drive rates of decomposition in a grassland ecosystem. 100th ESA Annual Meeting (August 9 - 14, 2015), Baltimore, MD
275. Ji Chen, Yiqi Luo, Jianyang Xia, Zheng Shi, Lifen Jiang, Shuli Niu, Xuhui Zhou, Junji Cao. 2015. Differential responses of ecosystem respiration components to experimental warming in a meadow grassland on the Tibetan Plateau. 100th ESA Annual Meeting (August 9 - 14, 2015), Baltimore, MD
274. Oleksandra Hararuk, Matthew Smith, Yiqi Luo, 2015. Effect of explicit microbial dynamics on the performance of soil carbon cycle models. 100th ESA Annual Meeting (August 9 - 14, 2015), Baltimore, MD
273. Jianwei Li, Siyang Jian, Dafeng Hui, Yiqi Luo, 2015. Effects of nitrogen additions on soil extracellular enzyme activity: A meta-analysis. 100th ESA Annual Meeting (August 9 - 14, 2015), Baltimore, MD
272. Lifen Jiang, Yiqi Luo, 2015. Uncertainties in predicted 21st century vegetation carbon storage by CMIP5 Earth system models. 100th ESA Annual Meeting (August 9 - 14, 2015), Baltimore, MD
271. Oleksandra Hararuk and Yiqi Luo. 2015. Evaluation and Improvement of Global Carbon Cycle Models against Soil Carbon and Microbial Data Sets Using a Bayesian MCMC method. European Geosciences Union General Assembly, Vienna, 12-17 April, 2015.
270. Yiqi Luo, Jianyang Xia, Junyi Liang, Lifen Jiang, Zheng Shi, Manoj KC, Oleksandra Hararuk, Rashid Rafique, and Ying-Ping Wang. 2015. A traceability framework for diagnostics of global land models. European Geosciences Union General Assembly, Vienna, 12-17 April, 2015
269. Alan Knapp, Scott Collins, Yiqi Luo, and Melinda Smith. Differential Sensitivity to Drought in Central U.S. Grasslands Arrayed Along an Aridity Gradient. European Geosciences Union General Assembly, Vienna, 12-17 April, 2015.
268. Luo YQ, X Xu, K Todd-Brown, JY Liang, 2014, What Does Data Tell Us about Decomposition Model of Soil Organic Matter? AGU Fall Meeting, December 11-19, 2014, San Francisco, CA
267. Luo, YQ, Z. Shi, S. Collins, A. Knapp, W. Pockman, M. Smith, 2014, Stability of Grassland Communities to Altered Precipitation: A Meta-Analysis. AGU Fall Meeting, December 11-19, 2014, San Francisco, CA
266. Zhou JZ, LY Wu, ZL He, K. Konstantinidis, YQ Luo, T. Schuur, J Cole, J Tiedje, 2014, Metagenomics-Enabled Understanding of Soil Microbial Feedbacks to Climate Warming. AGU Fall Meeting, December 11-19, 2014, San Francisco, CA
265. Todd-Brown K, YQ Luo, J Randerson, S Allison, M Smith, 2014, Understanding the Dynamics of Soil Carbon in CMIP5 Models. AGU Fall Meeting, December 11-19, 2014, San Francisco, CA
264. Todd-Brown K, HQ Yin, JZ Zhou, LY Wu, T. J Tiedje, Schuur, K. Konstantinidis, YQ Luo, 2014, Incorporating Functional Gene Quantification into Traditional Decomposition Models. AGU Fall Meeting, December 11-19, 2014, San Francisco, CA
263. Jiang LF, YQ Luo, 2014, Uncertainties in Predicted 21st Century Vegetation Carbon Storage By CMIP5 Earth System Models. AGU Fall Meeting, December 11-19, 2014, San Francisco, CA

262. Liang JY, CF Hao, Z. Shi, JY Xia, YQ Luo, 2014. Increase in Recalcitrant Carbon: a Positive Balance between Stabilization and Priming Effect. AGU Fall Meeting, December 11-19, 2014, San Francisco, CA
261. Allison S, JW Li, YQ Luo, M Mayes,, GS Wang, 2014. Insights from intercomparison of microbial and conventional soil models. AGU Fall Meeting, December 11-19, 2014, San Francisco, CA
260. Xia JY, AD McGuire, D Lawrence, E Burke, XD Chen, C Delire, C Koven, A MacDougall, SS Peng, A Rinke, K Saito, WX Zhang, R Alkama, T Bohn, P Ciais, B Decharme, I Gouttevin, T Hajima, D Ji, G Krinner, D Lettenmaier, P Miller, J Moore, B Smith, T Sueyoshi, Z Shi, L Yan, J Liang, L Jiang, YQ Luo, 2014. Terrestrial ecosystem model performance for net primary productivity and its vulnerability to climate change in permafrost regions. AGU Fall Meeting, December 11-19, 2014, San Francisco, CA
259. Shi Z, ML Thomey, ME. Litvak, N Brunsell, SL Collins, WT Pockman, MD Smith, AK Knapp, YQ Luo, 2014, Differential effects of extreme drought on production and respiration: Synthesis and modeling analysis. 99 th ESA Annual Meeting (August 10 - 15, 2014), Sacramento, CA
258. Knapp AK, DL Hoover, ML Avolio, SE Koerner, KJ La Pierre, ME Loik, YQ Luo, OE Sala, MD Smith, 2014. Characterizing precipitation regimes of extreme wet and dry years: Implications for regional to global scale experiments. 99th ESA Annual Meeting (August 10 - 15, 2014), Sacramento, CA
257. Jiang LF, YN Yan, O Hararuk, N Mikle, JY Xia, Z Shi, J Tjiputra, TW Wu, YQ Luo, 2014. Scale-dependent performance of earth system models in simulating terrestrial vegetation carbon. 99th ESA Annual Meeting (August 10 - 15, 2014), Sacramento, CA
256. Luo YQ, 2014, What does data tell us about model structure of microbial decomposition of soil organic carbon. 99th ESA Annual Meeting (August 10 - 15, 2014), Sacramento, CA
255. Luo YQ, 2014, Model data assimilation in climate change research. 99th ESA Annual Meeting (August 10 - 15, 2014), Sacramento, CA
254. Rafique R, YQ Luo, JY Xia, O Hararuk, Parameter differences cause diverse predictions of carbon sequestration between two global land models. 99th ESA Annual Meeting (August 10 - 15, 2014), Sacramento, CA
253. Li M, YH He, XH Zhou, B Li, YQ Luo. 2014, Patterns of nitrogen processes across soil mineral nitrogen gradient in terrestrial ecosystems: A global synthesis. 99th ESA Annual Meeting (August 10 - 15, 2014), Sacramento, CA
252. Luo Y, JY Xia, O Hararuk, YP Wang, Traceability analysis of global land models. 19th Annual CESM Workshop, 16 – 19 June 2014, Breckenridge, Colorado
251. Xu X, Y. Luo et al. Soil properties control decomposition of soil Organic carbon: a global data assimilation. International workshop: "Representing soil carbon dynamics in global land models to improve future IPCC assessments", Breckenridge, CO, USA, June 12-14, 2014
250. Liang JY, D Li, Z Shi, J Tiedje, J Zhou, E Schuur, K Konstantinidis, Y Luo, Estimating soil decomposition parameters for Earth system models from soil incubation data, International workshop: "Representing soil carbon dynamics in global land models to improve future IPCC assessments", Breckenridge, CO, USA, June 12-14, 2014
249. Xia J, Y. Luo et al. Traceability of global land models, International workshop: "Representing soil carbon dynamics in global land models to improve future IPCC assessments", Breckenridge, CO, USA, June 12-14, 2014
248. Hararuk O, Y. Luo et al. Data assimilation to improve parameterization of carbon models, International workshop: "Representing soil carbon dynamics in global land models to improve future IPCC assessments", Breckenridge, CO, USA, June 12-14, 2014

247. Zhou T, Y Luo et al. Nonsteady state data assimilation, International workshop: "Representing soil carbon dynamics in global land models to improve future IPCC assessments", Breckenridge, CO, USA, June 12-14, 2014.
246. Jiang L, Y. Luo et al. Global distributions of plant biomass and turnover, International workshop: "Representing soil carbon dynamics in global land models to improve future IPCC assessments", Breckenridge, CO, USA, June 12-14, 2014
245. Wang YP, Y Luo et al. Nonlinear dynamics of microbial models, International workshop: "Representing soil carbon dynamics in global land models to improve future IPCC assessments", Breckenridge, CO, USA, June 12-14, 2014
244. Luo YQ: Welcome and overview, International workshop: "Representing soil carbon dynamics in global land models to improve future IPCC assessments", Breckenridge, CO, USA, June 12-14, 2014
243. Luo YQ, X Xu, N Mikle, J Xia, L Jiang, J Liang, O Hararuk, R Rafique, 2014, Evaluation and Improvement of Terrestrial Carbon Cycle Models With Observations, Joint TES/SBR Principal Investigator (PI) Meeting, May 5-7, 2014, Potomac, MD
242. Luo YQ, JY Xia, O Hararuk, YP Wang, 2014. Traceability of land carbon cycle models, Webinar for April 1, 2014.
241. Rashad Rafique; Jianyang Xia; Oleksandra Hararuk; Yiqi Luo; Yong Jiu Dai; Craig Macaulay Carbon-Structural Analysis of Global Land Models (C-SALM). Annual American Geophysical Union meeting, San Francisco, CA, December 9-13, 2013.
240. Anthony P. Walker; Soenke Zaehle; Martin G. De Kauwe; Belinda E. Medlyn; Michael Dietze; Thomas Hickler; Colleen M. Iversen; Atul K. Jain; Yiqi Luo; Heather R. McCarthy; William J. Parton; Colin Prentice; Peter E. Thornton; Shusen Wang; Yingping Wang; David Warlind; Jeff Warren; Ensheng Weng; Paul J. Hanson; Ram Oren; Richard J. Norby. Model-experiment synthesis at two FACE sites in the southeastern US. Forest ecosystem responses to elevated CO2. Annual American Geophysical Union meeting, San Francisco, CA, December 9-13, 2013.
239. R. Bracho, E.A.G Schuur, E. Pegoraro, K.G. Crummer, S. Natali, J. Zhou, Y Luo, J. L. Wu, M. Tiedje, K. Konstantinidis, Temperature sensitivity (Q10), and dynamics of soil organic matter (SOM) decomposition in permafrost soils with different carbon quality and under experimental warming. Annual American Geophysical Union meeting, San Francisco, CA, December 9-13, 2013.
238. Lifen Jiang; Yiqi Luo; Yaner Yan; Oleksandra Hararuk Scale-dependent performances of CMIP5 earth system models in simulating terrestrial vegetation carbon. Annual American Geophysical Union meeting, San Francisco, CA, December 9-13,2013.
237. Xuecheng Chen; Yiqi Luo; Xia Xu; Dejun Li; Shuli Niu Warming and altered precipitation affect litter decomposition and nitrogen dynamics in a mixed-grass prairie. Annual American Geophysical Union meeting, San Francisco, CA, December 9-13, 2013.
236. Oleksandra Hararuk; Matthew J. Smith; Yiqi Luo Improving global soil carbon predictions with data-constrained microbial based models. Annual American Geophysical Union meeting, San Francisco, CA, December 9-13, 2013.
235. Yingping Wang; Matthew J. Smith; Yiqi Luo; Maria Leite; Folashade Agusto; Benito Chen; Forrest M. Hoffman; Belinda E. Medlyn; Martin Rasmussen Theoretical analysis of the global land carbon cycle: what determines the trajectory of future carbon uptake? Annual American Geophysical Union meeting, San Francisco, CA, December 9-13, 2013.
234. Nathaniel Mikle; Yiqi Luo Toward identification of a threshold to ecosystem collapse using rain- use efficiency as an indicator. Annual American Geophysical Union meeting, San Francisco, CA, December 9-13, 2013.
233. Yiqi Luo; Zheng Shi; Nathaniel Mikle; Jianyang Xia; Shuli Niu; Liming Yan Search for Generalizable Mechanisms and Patterns from Variable Ecosystem Responses to Climate

Extremes (Invited). Annual American Geophysical Union meeting, San Francisco, CA, December 9-13, 2013.

232. Jianyang Xia; Yiqi Luo; Shuli Niu; Dafeng Hui; Jinwei Dong; Jiquan Chen; Ensheng Weng; Jianwei Li Convergence of Phenological and Physiological Control on Annual Terrestrial Carbon Dioxide Uptake. Annual American Geophysical Union meeting, San Francisco, CA, December 9-13, 2013.
231. Kai Xue, Mengting Yuan, Lei Cheng, Jason Shi, Ye Deng, Liyou Wu Zhili He, Joy D. Van Nostrand, Edward A. G. Schuur, Yiqi Luo, Konstantinos Konstantinidis, James Tiedje, Jizhong Zhou. Soil microbial community determines vulnerability of soil carbon exposed to warming in northern permafrost. Annual ESA meeting, Minneapolis, MN, August 4-9, 2013.
230. Mengting Yuan, Jin Zhang, Liyou Wu, Kai Xue, Lei Cheng, Ye Deng, Tong Yuan, Joy Van Nostrand, Zhili He, Edward A.G. Schuur, Yiqi Luo, James Tiedje, Jizhong Zhou Climate warming induced permafrost thaw changes soil microbial communities. Annual ESA meeting, Minneapolis, MN, August 4-9, 2013.
229. Zheng Shi, Yiqi Luo, Alan K. Knapp, Melinda D. Smith, Scott L. Collins, Will Pockman More reduction in plant productivity than respiration under extreme drought across grassland types along a rainfall gradient: A modeling analysis. Annual ESA meeting, Minneapolis, MN, August 4-9, 2013.
228. Yiqi Luo, Trevor Keeman, Matthew Smith, Predictability of the terrestrial carbon cycle. Annual ESA meeting, Minneapolis, MN, August 4-9, 2013.
227. Junyi Liang, Yiqi Luo, Less increase in apparent than intrinsic Q10 of soil carbon release. Annual ESA meeting, Minneapolis, MN, August 4-9, 2013.
226. Meng Lu, Xuhui Zhou, Yiqi Luo, Bo Li, Responses of ecosystem carbon cycle to experimental warming: a meta-analysis. Annual ESA meeting, Minneapolis, MN, August 4-9, 2013.
225. Jianwei Li, Yiqi Luo, Susan M. Natali, Edward A.G. Schuur, Jianyang Xia, Bernard Pak, Eva Kowalczyk, Yingping Wang Permafrost thaw and ecosystem carbon cycle under multifactor global change at a tundra site: A modeling approach. Annual ESA meeting, Minneapolis, MN, August 4-9, 2013.
224. Luo, Y., T. Keenan, and M. Smith (2013), Predictability of the terrestrial carbon cycle. The 9th International Carbon Dioxide Conference, Beijing, China, June 3-7.
223. Luo Y, Xia J, Wang YP, Hararuk O (2013), Theoretical Analysis of the Terrestrial Carbon Cycle. 4th NACP All-Investigators Meeting, Albuquerque, New Mexico, USA. Feb. 06. (Poster)
222. Luo Y, Xia J, Wang YP, Hararuk O, Niu S, et al. (2013) A traceability framework to facilitate model evaluation. CESM Land Model and Biogeochemistry Working Group Meetings, 20-22 Feb. 2013. National Center for Atmospheric Research – Boulder, Colorado Mesa Lab, USA. (Oral)
221. Xia, J, Luo Y, Wang YP, Niu S, Hararuk S (2013) Traceable components of modeled carbon storage capacity in terrestrial ecosystem. 4th NACP All-Investigators Meeting, Albuquerque, New Mexico, USA. Feb. 06. (Poster)
220. Xia, J, Luo Y, Wang YP, Niu S, Hararuk S (2013) A traceability framework for model intercomparisons. Multi-Scale Synthesis and Terrestrial Biospheric Model Intercomparison Project (MsTMIP) Workshop, Albuquerque, New Mexico, USA. Feb. 08. (Oral)
219. Luo Y, Xia J, and Ecolab members. (2013) Evaluating and improving performances of global land-surface models through data synthesis and data assimilation. TES/SBR Joint Investigators Meeting, 14-15 May, 2013. U.S. Department of Energy, Office of Science – Potomac, Maryland, USA. (Poster)
218. Luo, Y. Nonautonomous linear system of the terrestrial carbon cycle. 2012 Fall Meeting, AGU, San Francisco, Calif., 3-7 Dec.

217. Schaedel C; EA Schuur; R Bracho; B Elberling; C Knoblauch; A Kotowska; H Lee; Y Luo; M Lupascu; S Natali; GR Shaver; MR Turetsky. Pan-arctic permafrost C quality and vulnerability over time: A synthesis of long-term incubation studies (Invited) 2012 Fall Meeting, AGU, San Francisco, Calif., 3-7 Dec.
216. Li J; S Natali; C Schaedel; EA Schuur; Y Luo. Permafrost carbon cycles under multifactor global change: a modeling analysis. 2012 Fall Meeting, AGU, San Francisco, Calif., 3-7 Dec.
215. Li D; R Kelly; F Hu; Y Luo Impacts of shifting fire regime on ecosystem carbon storage capacity in the interior Alaskan forests. 2012 Fall Meeting, AGU, San Francisco, Calif., 3-7 Dec.
214. De Kauwe MG; BE Medlyn; MC Dietze; PJ Hanson; T Hickler; AK Jain; Y Luo; RJ Norby; R Oren; WJ Parton; IC Prentice; PE Thornton; A Walker; Y Wang; S Wang; J Warren; D Warlind; E Weng; S Zaehle Water use and water use efficiency at elevated CO2: a model-data intercomparison at two contrasting temperate forest FACE sites. 2012 Fall Meeting, AGU, San Francisco, Calif., 3-7 Dec.
213. Hararuk O; J Xia; Y Luo Evaluation and Improvement of Two Global Land Models Against Soil Carbon Data Using a Data Assimilation Approach. 2012 Fall Meeting, AGU, San Francisco, Calif., 3-7 Dec.
212. Wieder W; GB Bonan; O Hararuk; Y Luo Integrating Observations to Inform Soil Biogeochemistry in CLM4. 2012 Fall Meeting, AGU, San Francisco, Calif., 3-7 Dec.
211. Weng E; Y Luo; W Wang; H Wang; DJ Hayes; AD McGuire; A Hastings; D Schimel Ecosystem carbon storage capacity as affected by disturbance regimes: a general theoretical model. 2012 Fall Meeting, AGU, San Francisco, Calif., 3-7 Dec.
210. Walker AP; S Zaehle; MG De Kauwe; MC Dietze; PJ Hanson; T Hickler; AK Jain; Y Luo; HR McCarthy; BE Medlyn; WJ Parton; PE Thornton; S Wang; Y Wang; D Warlind; E Weng; R Oren; RJ Norby Climatic drivers of variability in the response of NPP to elevated CO2. A model-data comparison at two FACE sites in the south eastern US. 2012 Fall Meeting, AGU, San Francisco, Calif., 3-7 Dec.
209. Niu S; Y Luo State Changes in Terrestrial Ecosystem Carbon Cycling after Recovering from Disturbance. 2012 Fall Meeting, AGU, San Francisco, Calif., 3-7 Dec.
208. Luo Y; J Yuan; S Niu Climate and Biological Controls of Carbon Fluxes along latitudinal gradients (Invited). 2012 Fall Meeting, AGU, San Francisco, Calif., 3-7 Dec.
207. Qi X. and Y Luo Effect of elevated CO_2 on ecosystem nitrogen fluxes and pools: Meta-analysis. 97th ESA Annual Meeting, Portland OR, August 5-10, 2012
206. Zhou J, L Wu, K Xue, L Cheng, M Yuan, J Zhang, Y Deng, JD Van Nostrand, Z He, R Penton, J Cole, J Tiedje, R Bracho-Garrillo, EAG Schuur, C Luo, K Konstantinidis, X Xu, D Li, Y Luo, From community structure to function: Metagenomics-enabled predictive understanding of microbial communities to climate warming at the temperate grassland ecosystems in Oklahoma.
97th ESA Annual Meeting, Portland OR, August 5-10, 2012
205. Cheng L., Y. Luo, L. Wu, Y Deng, Y. Qin, J. Van Nostrand, Z He, M Beth Leigh, EAG Schuur, J Tiedje, J Zhou. Experimental warming increases old carbon decomposition through shifting functional microbial communities in a tallgrass prairie. 97th ESA Annual Meeting, Portland OR, August 5-10, 2012
204. Luo Y, X Xu, RA Sherry, S Niu, D Li , J Xia State transition of US Great Plains prairie under experimental warming. 97th ESA Annual Meeting, Portland OR, August 5-10, 2012
203. Xue K, J Xie, Y Deng, L Wu, Z He, JD Van Nostrand, Y Luo, J Zhou, Interactive effects of clipping practice and experimental warming on soil microbial communities involved in nitrogen cycling in a tallgrass prairie. 97th ESA Annual Meeting, Portland OR, August 5-10, 2012

202. Xia J, Y Luo, Y Wang Traceable components of modeled carbon storage capacity in terrestrial ecosystem. 97th ESA Annual Meeting, Portland OR, August 5-10, 2012
201. Li D, C Schädel, J Zhou, Y Luo, A data-model fusion technique to evaluate the temperature sensitivity of SOC decomposition. 97th ESA Annual Meeting, Portland OR, August 5-10, 2012
200. Hararuk O, D Obrist, Y Luo, Modeling the sensitivity of soil mercury storage to climate-induced changes in soil carbon pools. 97th ESA Annual Meeting, Portland OR, August 5-10, 2012
199. Luo R, D Li, Y Luo, Global patterns of fire regime analysis based on fire frequency. 97th ESA Annual Meeting, Portland OR, August 5-10, 2012
198. Niu S, R Sherry, X Zhou, Y Luo, Ecosystem water fluxes in response to climate warming and biofuel harvest in a tallgrass prairie. 97th ESA Annual Meeting, Portland OR, August 5-10, 2012
197. Niu S., D. Li, O. Hararuk, L. Yan, X. Chen, E. Ali, and Y. Luo. Disturbance and Recovery in Terrestrial Ecosystem Carbon Cycling-a Global Synthesis, European Geosciences Union General Assembly, Vienna, Austria, 22 – 27 April 2012
196. Luo Y., X. Xu, R Sherry, S. Niu, D. Li, and J. Xia. Climate Extremes Triggered State Shifting of US Great Plains Prairie under Experimental Warming, European Geosciences Union General Assembly, Vienna, Austria, 22 – 27 April 2012
195. Luo YQ (2011) Ecological Forecasting System. National Academies Keck Future Initiative, Ecosystem Services: Charting a Path to Sustainability, Nov. 10-13, 2011, Irvine, CA.
194. Luo YQ, Y Yang, X Zhou, E Weng, AC Finzi, and R Norby (2011) Key parameters in determining carbon-nitrogen coupling under elevated CO2 in Duke and Oak Ridge Forests: Results from inverse analysis. 27th New Phytologist symposium, Biosphere 2, Oracle, AZ, USA, 25–28 September 2011
193. Zhou XH, YQ Luo, PSJ Verburg, JA Arnone, D. Schimel. 2011 Benchmark analysis of parameterization under climate warming for terrestrial carbon cycle model. 96th ESA Annual Meeting, Austin, TX, August 7-15, 2011.
192. Zhou LH, GJ Yang, YQ Luo, Landscape change and human activity analysis on desertification process in northern China. 96th ESA Annual Meeting, Austin, TX, August 7-15, 2011.
191. Luo YQ, Predicting future states of ecosystems in the southern Great Plains. 96th ESA Annual Meeting, Austin, TX, August 7-15, 2011.
190. Qi X, YQ Luo, XH Zhou , Response of ecosystem nitrogen cycle to elevated CO_2: A meta-analysis. 96th ESA Annual Meeting, Austin, TX, August 7-15, 2011.
189. Niu SL, R Sherry, XH Zhou, YQ Luo, Composition of C3 and C4 species regulates ecosystem response to climate warming. 96th ESA Annual Meeting, Austin, TX, August 7-15, 2011.
188. Xiao JF, KJ Davis, JQ Chen, M Reichstein, DD Baldocchi, C Beer, L Chasmer, JM Chen, AR Desai, K Ichii, A Ito, R John, M Jung, T Kato, W Knorr, BE Law, S Liu, YQ Luo, M Mirco, Q Mu, K Naithani, D Papale, SW Running, Y Ryu, KM Schaefer, CR Schwalm, G Sun, H Tian, E Tomelleri, CA Williams, B Wylie, W Yuan, L Zhang (2011) Advances in Upscaling of Carbon
and Water Fluxes from Towers to Regional, Continental and Global Scales. 3rd North American
Carbon Program (NACP) all investigators meeting, Jan. 31-Feb. 4, 2011, New Orleans, LA.
187. SL Niu, YQ Luo, S Fei, Z Zhang, D Schimel (2011) Thermal optimality of Net Ecosystem Carbon Exchange and Its Temperature Acclimation. 3rd North American Carbon Program (NACP) all investigators meeting, Jan. 31-Feb. 4, 2011, New Orleans, LA.
186. Schwalm CR, CA Williams, K Schaefer, R Anderson, M Arain, I Baker, A Barr, T Black, G Chen, JM Chen, P Ciais, KJ Davis, A Desai, M Dietze, D Dragoni, ML Fischer, LB Flanagan, R Grant, L Gu, DY Hollinger, RC Izaurralde, C Kucharik, P Lafleur, BE Law, L Li, Z Li, S

Liu, EY Lokupitiya, YQ Luo, S Ma, HA Margolis, R Matamala, HJ McCaughey, RK Monson, WC Oechel, C Peng, B Poulter, DT Price, DM Ricciuto, WJ Riley, AK Sahoo, M Sprintsin, J Sun, H Tian, C Tonitto, H Verbeeck, SB Verma (2011) Evaluating Terrestrial Biosphere Models:
Comparing Simulated and Observed Net Ecosystem Exchange. 3rd North American Carbon Program (NACP) all investigators meeting, Jan. 31-Feb. 4, 2011, New Orleans, LA.

185. XH Zhou, YQ Luo, PS Verburg, JA Arnone, DS Schimel (2011) Benchmark analysis of parameterization under climate warming for terrestrial carbon cycle model. 3rd North American Carbon Program (NACP) all investigators meeting, Jan. 31-Feb. 4, 2011, New Orleans, LA.
184. Luo YQ and ES Weng (2011) *A unified concept for carbon research: Dynamic disequilibrium of the terrestrial carbon cycle under global change*. 3rd North American Carbon Program (NACP) all investigators meeting, Jan. 31-Feb. 4, 2011, New Orleans, LA.
183. Luo Y. (2010) *Does nitrogen limit carbon sequestration in terrestrial ecosystems*? The 5th international nitrogen conference. New Delhi, India. 4-9 Dec.
182. Yang, Y, Zhou, X, Weng, E, Luo, Y (2010) Inversion of coupled carbon-nitrogen model parameters against multiple datasets using Markov chain Monte Carlo methodology. 2010 Fall Meeting, AGU, San Francisco, Calif., 13-17 Dec.
180. Weng, E, Luo, Y (2010) Relative Information Contributions of Model vs. Data to Constraints of Short- and Long-Term Forecasts of Forest Carbon Dynamics. 2010 Fall Meeting, AGU, San Francisco, Calif., 13-17 Dec.
180. Xiu, X, Luo, Y, Sherry, R A, Yang, Y, Zhou, X, Niu, S (2010) Increased carbon recalcitrance with depletion of labile organic carbon under a long-term experimental warming in a tallgrass prairie. 2010 Fall Meeting, AGU, San Francisco, Calif., 13-17 Dec.
179. Luo, Y, Zhou, X, Verburg, P, Arnone, J (2010) Benchmark analysis of parameterization for terrestrial carbon cycle model (Invited) . 2010 Fall Meeting, AGU, San Francisco, Calif., 13-17 Dec.
178. Schädel, C, Fei, S, Luo, Y (2010) Parameter constraints to reveal temperature sensitivity of soil C decomposition by incubation data. 2010 Fall Meeting, AGU, San Francisco, Calif., 13-17 Dec.
177. Luo, Y, Niu, S, Fei, S, Yuan, W, Zhang, Z, Schimel, D, FLUXNET PIs. (2010) Thermal Acclimation and Adaptation of Net Ecosystem Carbon Exchange (Invited) . 2010 Fall Meeting, AGU, San Francisco, Calif., 13-17 Dec.
176. Reichstein, M, Ciais, P, Seneviratne, S I, Carvalhais, N, Dalmonech, D, Jung, M, Luo, Y, Mahecha, M D, Moffat, A M, Tomelleri, E, Zaehle, S (2010) How to 'Elk-test' biogeochemical models in a data rich world? (Invited). 2010 Fall Meeting, AGU, San Francisco, Calif., 13-17 Dec.
175. Weng ES, N Petrov, YQ Luo, WL Wang, and H Wang, Carbon storage capacity under varying disturbance regimes. 95th ESA Annual Meeting, Pittsburgh, PA, August 1-6, 2010
174. Luo Y, K Ogle, C Tucker, S Fei, SL LaDeau, JS Clark, and DS Schimel, Data assimilation and ecological forecasting in a data-rich era. 95th ESA Annual Meeting, Pittsburgh, PA, August 1-6, 2010.
173. Niu S, X Yan, and Y Luo, Ecosystem carbon exchange in response to climate warming: short vs long term. 95th ESA Annual Meeting, Pittsburgh, PA, August 1-6, 2010.
172. Zhou X and Y Luo, Effects of climate warming and biofuel feedstock harvest on belowground process in a tallgrass prairie. 95th ESA Annual Meeting, Pittsburgh, PA, August 1-6, 2010.
171. Leuzinger S, Y Luo, C Beier, and C Koerner, Global change experiments overestimate impacts on terrestrial ecosystems. 95th ESA Annual Meeting, Pittsburgh, PA, August 1-6, 2010.

170. Dietze M, Y Luo, R Oren, IC Prentice, PJ Hanson, and RJ Norby, How well are we modeling forest responses to elevated CO_2? Results of the FACE/model inter-comparison project. 95th ESA Annual Meeting, Pittsburgh, PA, August 1-6, 2010.
169. Yang Y, X Zhou, and Y Luo, Inversion of coupled carbon-nitrogen model parameters against multiple datasets using Markov chain Monte Carlo methodology. 95th ESA Annual Meeting, Pittsburgh, PA, August 1-6, 2010.
168. Heisler-White JL, J Morgan, WJ Parton, JM Blair, NR Chiariello, JS Dukes, PA Fay, CB Field, SS Hoeppner, M Hovenden, AK Knapp, Y Luo, S Niu, E Pendall, and V Suseel, Modeled effect of warming on ecosystem carbon and water dynamics within grassland/old-field ecosystems along a moisture gradient. 95th ESA Annual Meeting, Pittsburgh, PA, August 1-6, 2010.
167. Sherry RA, LL Wallace, and Y Luo, Plant community structure and stability over ten years of warming and harvesting. 95th ESA Annual Meeting, Pittsburgh, PA, August 1-6, 2010.
166. Fei S, Z Zhang, and Y Luo, Real time forecast of forest carbon dynamics using ensemble Kalman filtering method. 95th ESA Annual Meeting, Pittsburgh, PA, August 1-6, 2010.
165. Arnone J, A Lucchesi, R Jasoni, J Larsen, EA Leger, RA Sherry, LL Wallace, Y Luo, and PSJ Verburg, The role of grassland plant species composition in defining synchronous and lagged responses of NPP and net ecosystem CO_2 balance to interannual temperature variability. 95th ESA Annual Meeting, Pittsburgh, PA, August 1-6, 2010.
164. Yang, Y and Luo, Y. Long-term nitrogen regulation of forest carbon sequestration. American Geophysical Union Fall Meeting, 14–18 December 2009, San Francisco, California, USA.
163. Weng, E and : Luo, Y. Comparing intra- and inter- biogeochemical model uncertainties based on the results of the North American Carbon Program Site-level Interim Synthesis. American Geophysical Union Fall Meeting, 14–18 December 2009, San Francisco, California, USA.
162. Luo, Y. Data Assimilation at FLUXNET to Improve Models towards Ecological Forecasting (*Invited*) . American Geophysical Union Fall Meeting, 14–18 December 2009, San Francisco, California, USA.
161. Niu, S and Luo, Y. Nitrogen regulation of climate-carbon cycle feedback: evidence from a long- term global change experiment. American Geophysical Union Fall Meeting, 14–18 December 2009, San Francisco, California, USA.
160. Arnone, J, Jasoni, R L, Larsen, J D, Coulombe, W, Darrouzet-Nardi, A, Luo, Y, and Verburg, P. Ecosystem respiratory responses to interannual and seasonal temperature variability in intact tallgrass prairie ecosystems in the EcoCELLs. American Geophysical Union Fall Meeting, 14–18 December 2009, San Francisco, California, USA.
159. Fei, S, Weng, E, Zhou, X, and Luo, Y. Real time forest carbon flux dynamics forecasting using Ensemble Kalman Filter. American Geophysical Union Fall Meeting, 14–18 December 2009, San Francisco, California, USA.
159. Luo Y. Grassland biodiversity and ecosystem functions under climate change. Second DIVERSITAS Open Science Conference. 13 – 16 October 2009, Cape Town, South Africa
158. Yang Y and Y Luo. Carbon and nitrogen accumulation during secondary succession. Ecological Society of America Annual Meeting, Albuquerque, New Mexico, August 2-7, 2009
157. Zhou X, Y Luo, PSJ Verburg, J Arnone, and DS Schimel. Concurrent and lagged impacts of an anomalously warm year on components of soil respiration: A deconvolution analysis. Ecological Society of America Annual Meeting, Albuquerque, New Mexico, August 2-7, 2009
156. Luo Y, M Lu, X Zhou, B Li, C Fang, and J Chen. Minor stimulation of soil carbon storage by nitrogen addition. Ecological Society of America Annual Meeting, Albuquerque, New Mexico, August 2-7, 2009
155. Sheik C, M Elshahed, Y Luo, G Wiley, S Macmil, C Qu, P Wang, BA Roe, and L Krumholz. Pyrosequecing reveals the effects of simulated warming on microbial abundances and

diversities in a tall grass prairie. Ecological Society of America Annual Meeting, Albuquerque, New Mexico, August 2-7, 2009

154. Luo YQ. Terrestrial Carbon-Cycle Feedback to Climate Warming: Experimental Evidence. Climate Change: Global Risks, Challenges, and Decisions, March 10-12 Copenhagen.
155. Daniel M Ricciuto, Kenneth J. Davis, Ankur R Desai, Andrew M Fox, Michael C Dietze, Shuguang Liu, Yiqi Q Luo, Andrew D Richardson, Kevin Schaefer, Mathew Williams. Improving carbon flux predictions in North America from the bottom up: The current state of eddy covariance based model-data fusion North America Carbon Program 2nd open science conference, Feb 16-20, 2009. San Diego, CA.
154. Xuhui Zhou, Tao Zhou, Yiqi Luo. Uncertainties in carbon residence time and sequestration in terrestrial ecosystems of the conterminous USA: A Bayesian approach North America Carbon Program 2nd open science conference, Feb 16-20, 2009. San Diego, CA.
153. Jingfeng Xiao, Kenneth J. Davis, Xuhui Zhou, Tao Zhou, Yiqi Luo, Christian Beer, Ben Bond-Lamberty, Ankur Desai, Martin Jung, Beverly E. Law, Leo Liu, Wilfred M. Post, Markus Reichstein, Daniel Ricciuto, Enrico Tomelleri, David Turner, Steven C. Wofsy, Bruce K. Wylie, Xiangming Xiao, Feihua Yang, Li Zhang, Maosheng Zhao. Regional to Continental Upscaling of AmeriFlux Data for Carbon Cycle Studies: Progress, Challenges, and New Directions. North America Carbon Program 2nd open science conference, Feb 16-20, 2009. San Diego, CA.
152. Deb Agarwal, Brian Amiro, Ryan Anderson, Altaf M. Arain, Ian Baker, Dennis Baldocchi, Alan Barr, Andy Black, Tom Boden, Paul Bolstad, Sean Burns, Steve Campbell, Guangsheng Chen, Jing Chen, Philippe Ciais, Bob Cook, David Cook, Peter Curtis, Kenneth J. Davis, Steve Delgrosso, Michael Dietze, Dimitre Dimitrov, Danilo Dragoni, Howard Epstein, Matthias Falk, Marc Fischer, Larry Flanagan, Allen Goldstein, Michael Goulden, Robert F. Grant, Lianhong Gu, Niall Hanan, Iain Hawthorne, Tim Hilton, Forrest Hoffman, David Hollinger, Tara Hudiburg, Misa Ishizawa, Cesar Izaurralde, Jeff Nichols, Robin Kelly, Tony King, Christopher Kucharik, Peter Lafleur, Beverly Law, Zhengpeng Li, Leo Liu, Mingliang Liu, Erandi Lokupitiya, Yiqi Luo, Hank Margolis, Roser Matamala, Harry McCaughey, Tilden Meyers, Russell Monson, Bill Munger, Walt Oechel, Ram Oren, William Parton, Elizabeth Pattey, Changhui Peng, Philippe Peylin, ShiLong Piao, Mac Post, Ben Poulter, David Price, Brett Raczka, Dan Ricciuto, Andrew Richardson, William J. Riley, Michael Ryan, Alok Sahoo, Nick Saliendra, Crystal Schaaf, Kevin Schaefer, Andrew Schuh, Michael Sprintsin, Paul Stoy, Peter Thornton, Hanqin Tian, Christina Tonitto, Margaret Torn, Catharine van Ingen, Rodrigo Vargas, Hans Verbeeck, Shashi Verma, Nicolas Viovy, Weile Wang, Ensheng Weng, Christopher Williams, Xiaofeng Xu, Bai Yang, Wenping Yuan, Tianshan Zha, Xuhui Zhou. Site-level synthesis of modeled and measured carbon, water, and energy fluxes across North America: Evaluation of model and measurement uncertainty. North America Carbon Program 2nd open science conference, Feb 16-20, 2009. San Diego, CA.
151. Luo YQ, NM Urban, KJ Davis, K Keller, P Thornton, M Post, ES Weng. Assimilation of Multiple, Heterogeneous Data Sets to Enhance Predictability of Future Carbon Sink dynamics in the North America Terrestrial Ecosystems. North America Carbon Program 2nd open science conference, Feb 16-20, 2009. San Diego, CA.
150. Zhou XH, T Zhou, YQ Luo. Uncertainty analysis of carbon turnover time and sequestration potential in terrestrial ecosystems of the conterminous USA. Ecological Society of America Annual Meeting, August 3-8, 2008, Milwaukee, WI.
149. Fei SF, RA Sherry, XH Zhou, LL Wallace, J Arnone, DS Schimel, PSJ Verburg, and YQ Luo Changes of root biomass in response to a one-year temperature and precipitation alteration experiment in a tallgrass prairie. Ecological Society of America Annual Meeting, August 3-8, 2008, Milwaukee, WI.

148. Bell JE and YQ Luo. A meta-analysis and modeling approach to understanding climate warming impacts on ecosystem rain use efficiency. Ecological Society of America Annual Meeting, August 3-8, 2008, Milwaukee, WI.
147. Hui DF, PSJ Verburg, J Arnone, and YQ Luo. Dynamics and partitioning of whole ecosystem respiration in a controlled grassland ecosystem. Ecological Society of America Annual Meeting, August 3-8, 2008, Milwaukee, WI.
146. Yuan WP, and YQ Luo. Environmental and biological regulations of interannual variability of net ecosystem exchange across regional scales. Ecological Society of America Annual Meeting, August 3-8, 2008, Milwaukee, WI.
145. Luo YQ, D Gerten. Modeled interactive effects of precipitation, temperature, and CO_2 on ecosystem carbon and water dynamics in different climatic zones. Ecological Society of America Annual Meeting, August 3-8, 2008, Milwaukee, WI.
144. Lu M, YQ Luo and B Li. Nitrogen fertilization differentiates carbon and nitrogen sequestrations in terrestrial ecosystem: A meta-analysis. Ecological Society of America Annual Meeting, August 3-8, 2008, Milwaukee, WI.
143. Gao C, H Wang, S. Lakshmivarahan, ES Weng, YF Zhang, and YQ Luo. Parameter estimation and uncertainty analysis of forest carbon dynamics: Ensemble Kalman filter method. Ecological Society of America Annual Meeting, August 3-8, 2008, Milwaukee, WI.
142. Weng ES, C Gao, and YQ Luo. Uncertainty analysis with data-model assimilation at Duke FACE. Ecological Society of America Annual Meeting, August 3-8, 2008, Milwaukee, WI.
141. Luo YQ. Biofuel feedstock production and carbon balance under Climate Changes. Oklahoma Bioenergy Symposium. University of Oklahoma, April 23, 2008.
140. Obrist D, Fain X, Johnson D, Lindberg S, Luo Y (2008) Mercury sequestration in vegetation and soils and consequences for atmospheric mercury levels. USDA Air Pollution Workshop and Symposium, Raleigh, NC, April 2008.
139. Obrist D. Luo Y, Johnson D, Lindberg S. Mercury sequestration in vegetation and soils in US forests and consequences for atmospheric mercury levels (2008). Swiss Soil Monitoring Network (NABO), Federal Office for the Environment, Department of the Environment, Transport, Energy, and Communications, Switzerland.
138. Obrist D, Luo Y, Johnson DW, Lindberg SE (2007). Effects of global change on the atmospheric mercury burden and mercury sequestration through changes in ecosystem carbon pools. Consequences of Global Change for Air Quality Progress Review; US EPA National Center for Environmental Research, February 2007, Raleigh, NC.
137. Zhou, XH, ES Wen, Y. Luo Patterns of nonlinearity in ecosystem responses to multifactor global change. Annual AGU meeting, San Francisco, CA, Dec. 9-14, 2007.
136. Luo Y. R Sherry, X. Zhou. Ecosystem-scale sensitivity of carbon cycling to climate warming. Annual AGU meeting, San Francisco, CA, Dec. 9-14, 2007.
135. Yuan WP, Y. Luo and AmeriFlux and EuroFlux PIs. Latitudinal Patterns of Interannual Variability in Net Ecosystem Exchange. Annual AGU meeting, San Francisco, CA, Dec. 9-14, 2007.
134. Luo YQ Uncertainty analysis with data assimilation. Annual AmeriFlux meeting, Boulder CO. Oct.17-19, 2007.
133. Yuan WP, Y. Luo and AmeriFlux and EuroFlux PIs. Latitudinal Patterns of Interannual Variability in Net Ecosystem Exchange. Annual AmeriFlux meeting, Boulder CO. Oct.17-19, 2007.
132. Luo, Y. Model assimilation of data from manipulative experiments. In NSF workshop: Data-model assimilation in ecology: techniques and applications, Norman, Oklahoma, 22-24 October, 2007
131. Gao, G. H Wang, S Lakshmivarahan, ES Weng, YF Zhang, and YQ Luo. Parameter estimation of forest carbon dynamics using Kalman Filter methods –Preliminary results. In NSF

workshop: Data-model assimilation in ecology: techniques and applications, Norman, Oklahoma, 22-24 October, 2007.

130. Weng ES, C. Gao, YQ Luo. Uncertainty Analysis with Data-Model Assimilation at Duke FACE. In NSF workshop: Data-model assimilation in ecology: techniques and applications, Norman, Oklahoma, 22-24 October, 2007
129. Zhou XH, T. Zhou, YQ Luo. Uncertainty analysis of carbon turnover time and sequestration potential in terrestrial ecosystems of the Conterminous USA. In NSF workshop: Data-model assimilation in ecology: techniques and applications, Norman, Oklahoma, 22-24 October, 2007
128. Luo Y. Carbon uptake drives nitrogen cycling in terrestrial ecosystem. The 4th international conference on Nitrogen, Salvador, Brazil. Oct 1-5, 2007.
127. Liao CZ, Y. Luo, X. Zhou, X. Wu, J. Chen, and B. Li. Altered ecosystem carbon and nitrogen cycles by plant invasion: A meta-analysis. Ecological Society of America Annual Meeting, August 5-10, 2007, San Jose, CA.
126. Sherry RA, LL Wallace, Y Luo, J Arnone, and DS Schimel Changes in species cover due to interannual variation in temperature and precipitation in a tallgrass prairie experiment. Ecological Society of America Annual Meeting, August 5-10, 2007, San Jose, CA.
125. Wu X, L White, Y Ma, X Zhou, and Y Luo Conditional inversion to estimate parameters from eddy flux observations. Ecological Society of America Annual Meeting, August 5-10, 2007, San Jose, CA.
124. Bell JE, Y Luo**,** and E Weng Impact of climate change on prairie soil water dynamics. Ecological Society of America Annual Meeting, August 5-10, 2007, San Jose, CA.
123. Zhou X, E Weng, and Y Luo Nonlinear response patterns of ecosystem carbon and water processes to gradual changes in temperature, atmospheric CO_2, and precipitation: Modeling analysis. Ecological Society of America Annual Meeting, August 5-10, 2007, San Jose, CA.
122. Weng E, X Zhou, R Sherry, and Y Luo. Soil water holding capacity regulates ecosystem responses to multifactor global change: A modeling analysis. Ecological Society of America Annual Meeting, August 5-10, 2007, San Jose, CA.
121. Luo Y. Terrestrial carbon-cycle feedback to climate warming: Synthesis of modeling results and experimental evidence. Ecological Society of America Annual Meeting, August 5-10, 2007, San Jose, CA.
120. Wallace, LL, Y. Luo, P. Gibson, and M. Palmer, Ecological Effects of Large Scale Biofuel Production. The First Annual Oklahoma Biofuel Research Symposium. Ponca City, Oklahoma, March 10, 2007.
119. Wu X., X. Zhou, L. White, Y. Luo. 2006. Conditional inversion for estimation of parameters from net ecosystem exchange. AmeriFlux annual meeting, Boulder, CO. Oct. 16-18.
118. Zhou X., S. Wan, Y. Luo, 2006. Interannaul variability of soil CO_2 efflux and its components under experimental warming and clipping in a tallgrass prairie ecosystem. AmeriFlux annual meeting, Boulder, CO. Oct. 16-18.
117. Luo. Y. 2006. Terrestrial carbon cycle feedback to climate warming. Ecomunch, Graduate program of Ecology, Evolution, and Conservation Biology, University of Oklahoma (Oct. 3)
116. Liao C, B. Li, Y. Luo. 2006. Changes in carbon and nitrogen pools of the Yangtze estuarine ecosystems invaded by *Spartina alterniflora*. Ecological Society of America annual meeting at Memphis, TN August 4-11
115. Weng E, Y. Luo, L. Rustad. 2006. Ecosystem responses to multiple global change factors: a modeling approach. Ecological Society of America annual meeting at Memphis, TN August 4-11
114. Luo Y, R. Sherry, X. Zhou. 2006. Experimental warming stimulated productivity, nitrogen cycling, and C4 plant dominance in a tallgrass prairie. Ecological Society of America annual meeting at Memphis, TN August 4-11

113. Zhou X., S. Wan, Y. Luo, 2006. Partitioning sources of soil CO_2 efflux and their interannual variability under experimental warming in a tallgrass prairie ecosystem. Ecological Society of America annual meeting at Memphis, TN August 4-11
112. Wu X, C. Liao, B. Li, J. Chen, Y. Luo. 2006. Ecosystem carbon and nitrogen dynamics as affected by biological invasion: a modeling assessment. Ecological Society of America annual meeting at Memphis, TN August 4-11
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104. Yiqi Luo, Dafeng Hui, and Deqiang Zhang. 2005. Net Accumulations of C and N in Ecosystems at Elevated CO_2. Ecological Society of America annual meeting at Montreal, Canada, August 7- 12, 2005.
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53. Kaspari, M., and Y. Luo. Human impacts on ecosystem biodiversity and functions: development of partnerships with NASA Goddad Space Flight Center. Oklahoma NASA EPSCoR Rountable. September 19, 2000
52. Wan, S., Y. Luo, L.L. Wallace, P. Kores, L.R. Krumholz, L. Farber, M. Hoefnagels. Warming and clipping effects on tallgrass prairie: A preliminary study and its implication for global change. Ecological Society of America annual meeting at Snowbird from August 6-10, 2000
51. Hui, D., Y. Luo, and G. Katul. A search for a simple but predictive model of net ecosystem productivity from eddy-covariance data. Ecological Society of America annual meeting at Snowbird from August 6-10, 2000
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45. Luo, Y. J. Andrews, R. Matamala, and W. Schlesinger. Deconvolution analysis of root turnover and rhizosphere carbon processes in the Duke FACE site: An ecosystems approach. In New Phytologist Symposium: Root dynamics and global change: An ecosystem Perspective held at Townsend, Tennessee, Oct 19-22, 1999.
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20. J.R. Seemann, R.S. Nowak, S. D. Smith, Y. Luo. 1996. Response of desert vegetation to elevated atmospheric carbon dioxide: The NTS Desert FACE facility. In the international FACE science meeting. Durhan, North Carolina. 17-20 November, 1996
19. Luo, Y., D.A. Sims, 1996. Gradient studies of photosynthetic responses to CO_2, light, and nitrogen. In annual ESA meeting held in Providence, Rhode Island 10-14 August 1996. Bulletin of the Ecological Society of America 77: 275.
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17. Luo, Y., K. Raffiee, and S. Song. 1996. Balancing recovery of endangered species and economic development in the Truckee River basin in the context of global change. In an

international conference organized by Water Environment Federation, Proceedings of Watershed 1996: Moving Ahead Together. 509p.

16. Luo, Y. 1996. Issues in studying terrestrial carbon processes for quantifying carbon sinks. In the annual meeting of DOE TCP funding program held in Lake Tahoe, California 26-28 June 1996.
15. Luo Y. 1996. Whole-plant acclimation to elevated CO_2: Gap between theory and data. In an IGBP-GCTE workshop of Plant Acclimation to Elevated CO_2 held in Lake Tahoe, California 19-23 May 1996.
14. Luo, Y. 1996. Potential terrestrial carbon sequestration is 2.5 times "the missing sink" in the Thirteen Annual Pacific Climate (PACLIM) Workshop, Asilomar, Calif. April 14-17, 1996.
13. Luo, Y. 1995. An global terrestrial carbon sequestration model to quantify potential carbon sink. In an EPRI global carbon cycle modeling review meeting held in Garmisch-Partenkirchen, Germany, 1-4 October 1995.
12. Luo, Y. and J.T. Ball, 1995. Changes in global terrestrial carbon influx directly associated with an increase in atmospheric CO_2 concentration. In Global Analysis, Interpretation, and Modeling: First Science Conference held Garmisch-Partenkirchen, Germany, 25-29 September 1995.
11. Luo, Y. 1995. A conceptual framework to quantify ecosystem carbon sequestration in response to rising atmospheric CO_2 concentration. In an IGBP-GCTE workshop of Plant-Soil Carbon Belowground: The Effects of Elevated CO_2 held in Oxford, UK, 20-23 September 1995.
10. Sims, D.A., Y. Luo, and J.T. Ball, 1995. Photosynthetic acclimation to high CO_2 concentration varies with a plant's capacity to adjust leaf thickness and nitrogen concentration. In annual ERA meeting held in Snowbird, Utah 30 July - 3 August 1995. Bulletin of the Ecological Society of America 76: 245.
9. Luo, Y., D.A. Sims, and J.T. Ball, 1995. An analytic approach to estimate global terrestrial carbon influx and storage associated with an increase in atmospheric CO_2 concentration. In annual ERA meeting held in Snowbird, Utah 30 July - 3 August 1995. Bulletin of the Ecological Society of America 76: 162.
8. Luo, Y. 1995. Photosynthetic carbon uptake: coping with multiple stresses in scaling-up studies from leaf to globe. In an IGBP-GCTE workshop of Stress Effects on Future Terrestrial Carbon Fluxes held in Lake Tahoe, California 14-18 May 1995.
7. Luo, Y., H.A. Mooney, C.B. Field, J. Chen, and J.F. Reynolds, 1994. Applying GePSi to an annual grassland: A test of its generality. In Symposium of Modularity in Models of Plant Growth, annual meeting of International Society for Ecological Modeling, North American Chapter held in Knoxville, Tennessee, 7-11 August 1994. Proceedings, 26p.
6. Luo, Y., R.B. Jackson, C.B. Field, and H.A. Mooney, 1994. Responses of soil respiration to elevated CO_2 in two California grassland ecosystems. In annual meeting of ERA held in Knoxville, Tennessee, 7-11 August 1994. Bulletin of the Ecological Society of America 75: 139.
5. Luo, Y. H.A. Mooney, 1994. Global photosynthetic carbon uptake as stimulated by CO_2 increase in the atmosphere. In First GCTE Science Conference held in Woods Hole, Massachusetts, 23- 27 May 1994, Book of Abstract, 41p.
4. Luo Y. 1994. Mechanisms of photosynthetic responses to elevated CO_2. In EPRI 1993 Annual Review of Forest Response to CO_2 held at Incline Village, Nevada 11-14 January 1994.
3. Luo, Y. 1993. Stimulation of global carbon uptake by rising atmospheric CO_2 concentration. Symposium on Challenges in Atmospheric Chemistry and Global Change: Yesterday, Today and Tomorrow for celebrating the 60th birthday of Dr. Paul J. Crutzen held at National Center of Atmospheric Research, Boulder, Colorado, 5-7 December 1993.
2. Luo, Y., H.A. Mooney, and C.B. Field, 1993. An explanation of variable responses of photosynthesis and root/shoot ratio to elevated CO_2. In annual meeting of ERA held in

Madison, Wisconsin, 31 July-4 August 1993. Bulletin of the Ecological Society of America 74: 339.

1. Luo, Y. and P.S. Nobel, 1992. Carbon partitioning patterns and compartmental analysis for *Opuntia ficus-indica*. In annual meeting of ERA held in Honolulu, Hawaii, 9-13 August 1992. Bulletin of the Ecological Society of America 73: 256-257.

STUDENTS, POST-DOCS, AND VISITORS

Post-docs and research associates (a total of 52)

2024-pres. Ning Wei, Sevilleta LTER data assimilation
2023-pres. Weinan Chen, methane fluxes in land and dairy farms.
2023-pres. Hyungsub Kim, Disturbance regimes in influencing carbon cycle
2023-pres. Quan Quan, Examining effects of elevated CO2 on ecosystem carbon balance at the SPRUCE project
2022-pres. Jian Zhou, Developing and applying Ecological Platform of Assimilating Data (EcoPAD) for ecological forecasting
2024-25. Yahai Zhang, Biochar residence time and developing an apple growth model
2023-2024. Wenjuan Huang, Examining impacts of cover crops on soil carbon erosion.
2021-2024. Yu Zhou, Dryland data assimilation and ecological forecasting.
2021-2023. Markus Mueler, Cyberinfrastructure for ecological forecasting
2021-2022. Jon Wells, Model integration of data from National Ecological Observatory Network (NEON).
2018-2021. Enqing Hou, Dryland data assimilation
2018-2021. Lin Lin (Tsinghua), global model analysis
2017-2019. Junliang Zou (Tsinghua), carbon and nitrogen interactions
2017-2019. Xinjie (Chris) Lu, permafrost regional data assimilation
2016-2017. Yuanyuan Huang, Real-time ecological forecasting
2015-2016. Jiang Jiang, ecosystem state change
2015-2017. Kevin Wilcox, data-model integration for extreme drought study.
2015-2018. Zheng Shi, data assimilation with Community Land Model (CLM) and Orbital Carbon Observatory (OCO-2)
2014-2016. Wenting Feng, Soil carbon dynamics
2014-2016. Manoj KC, modeling global carbon cycle
2014 Jie Yin, Modeling analysis.
2014-2015 Kathe Todd-Brown, Global carbon cycle modeling.
2013-2014. Rashid Rafique, Modeling analysis of coupled carbon-nitrogen cycles
2012-2013. Francesc Montané, modeling analysis of carbon cycle
2012-pres. Lifen Jiang, meta-analysis and lab management
2012-2014. Xia Xu, SOC dynamics
2012-2014. Jianwei Li, modeling of microbial processes
2011-2013. Liming Yan (Fudan), Terrestrial ecosystem responses to extreme hydrological events.
2011-2015. Jianyang Xia, global modeling analysis of biogeochemical cycles.
2011-2013. Yaner Yan (Fudan), Emission and absorption of greenhouse gases by natural ecosystems in China.
2011-2013. Dejun Li, Deconvolution analysis of soil incubation data and modeling Tundra ecosystems responses to climate change.
2010-2011. Christina Schädel, Decomposition of soil organic matter.
2009-2012, post-doc, 2012. Research Assistant Prof. Shuli Niu. Warming effects on carbon, water, and nutrient dynamics.
2008-2011. Yuanhe Yang, Nirogen-carbon interactions during forest success and in response to elevated CO_2.

2008-09. Xiaoli Cheng, Nutrient dynamics and litter decomposition under warming.
2007-2009, Xuhui Zhou, post-doc, 2009-2011. Assistant Research Professor, Inverse analysis.
2002-2008, Rebecca A Sherry, Research Associate; 2008-10. Assistant Research Professor, Ecosystem carbon exchange under warming.
2007-2008. Wenping Yuan, Interannual variability of net ecosystem exchange of carbon and water.
2005. Tao Xu, Inverse analysis of biogeochemical cycles in terrestrial ecossytems
2005-07. Weng, Ensheng, Modeling ecosystem responses to multiple global change factors
2004. Asfaw Tedla. Microbial and genomic responses to experimental warming in tallgrass prairie.
2003-2005. Xiaoli Cheng. Trace emission from salt marsh (located in Fudan Univ. Shanghai, China)
2003-2005. Lifeng Jiang. Ecosystem C cycling in salt marsh (located in Fudan Univ. Shanghai, China)
2003-2005. Tao Zhou. Regional ecosystem modeling
2002-04. Dafeng Hui. Interannual variability in terrestrial ecosystem exchange of carbon and water.
2002-03. Ilkka Lenenoin, Modeling study of responses of Duke Forest to elevated CO_2.
2000-02. Xiaozhong Liu. Plant ecophysiology in response to global environmental change.
2000-01. Valérie Le Dantec. Modeling analysis of forest/atmosphere carbon exchange using eddy-flux data.
1999-2001. Lianhai Wu. Nutrient cycling in forests as affected by rising atmospheric [CO_2]
1999-2000 Uwe Gruters. Hydrological cycle in forests as affected by rising atmospheric [CO_2]
1998-99. Shi Kui Xue. Watershed ecology and modeling. (currently Senior Scientist, South Florida Water Management District [so-called Everglade Restoration Program])
1996-98. Andrew Peterson, Meta-data analysis.
1994-96. Daniel Sims. Plant physiological ecology.

Graduate students (a total of 41)

2025-pres. Yi Xiong (PhD) at Soil and Crop Sciences section, School of Integrative Plant Science, Cornell University
2024-pres. Chenxi Feng (PhD) at Soil and Crop Sciences section, School of Integrative Plant Science, Cornell University
2023-pres. Haodi Xu (PhD) at Soil and Crop Sciences section, School of Integrative Plant Science, Cornell University
2021-2025. Aneesh Chantel (PhD) at Soil and Crop Sciences section, School of Integrative Plant Science, Cornell University.
2020-2023. Keanan Allen (MS) at School of Integrative Plant Science, Cornell University.
2019-2021. Yuan Gao (MS) at School of Informatics, Computer and Cyber Systems (SICCS), NAU
2019-2024. Cuijuan Liao (Ph.D.) at Department of Earth System Science, Tsinghua University
2018-2023. Xin Huang (Ph.D.) at at School of Informatics, Computer and Cyber Systems (SICCS), NAU
2018-2023. Feng Tao (Ph.D.) at Department of Earth System Science, Tsinghua University
2015-2019. Shuang Ma (Ph.D.) Department of Biological Sciences, Northern Arizona University
2015-2019. Chang Gyo Jung (Ph.D.) Department of Biological Sciences, Northern Arizona University.
2014-2019. Qiangyue Li (Ph.D.) at Center for Earth System Science, Tsinghua University
2013-2014. Nate Mikle (MS), Extreme climate effects on globa productivity.
2013-2016. Junyi Liang (Ph.D.) Department of Microbiology and Plant Biology, University of Oklahoma

2011-2014. Xuecheng Cheng (MS) Litter decomposition, Department of Microbiology and Plant Biology, University of Oklahoma
2011-2015. Zheng Shi (Ph.D.) Data assimilation and ecological forecasting. Department of Microbiology and Plant Biology, University of Oklahoma
2010-2012. Esther Ali (MS) Soil carbon dynamics of tropical forest ecosystems after fire. Department of Microbiology and Plant Biology, University of Oklahoma
2010-2013. Xuan Qi (MS). Soil nitrogen dynamics in response to global change. Department of Microbiology and Plant Biology, University of Oklahoma
2009-2011. Zhongda Zhang (MS) Department of Computer Sciences, University of Oklahoma
2008-2014. Junjiong Shao (Ph.D) Interannual variability of net ecosystem exchange (located at Fudan Univ. Shanghai, China)
2008-2014. Oleksandra Hararuk (Ph.D) Modeling study of mercury dynamics in terrestrial ecosystems. Department of Microbiology and Plant Biology, University of Oklahoma.
2008-2012. Xia Xu (Ph.D.) Temperature sensitivity of soil organic matter. Department of Microbiology and Plant Biology, University of Oklahoma
2007-2011. Shenfeng Fei (MS) Root ecology, Department of Microbiology and Plant Biology, University of Oklahoma
2007-2011. Ensheng Weng (Ph.D.) modeling analysis, Department of Microbiology and Plant Biology, University of Oklahoma
2006-09. Li Zhang (Ph.D.) Parameter estimation of ecosystem carbon process model at a southern China Forest (located at Institute of Geographical Sciences and Natural Resources Research, Chinese Academy of Science, Beijing)
2006-08. Chao Gao (MS.) Inverse analysis of carbon processes at Duke Forest CO_2 experiment. Department of Botany and Microbiology, University of Oklahoma
2006-09. Yixin Wen (MS) carbon and nitrogen dynamics during litter decomposition (located at Fudan Univ. Shanghai, China)
2005-2009. Meng Lu (Ph.D.) Meta-analysis of carbon and nitrogen interactions under fertilization (located at Fudan Univ. Shanghai, China)
2004-2009. Jesse Bell (Ph.D.) Plant-soil water relationship under warming.
2005-08. Ke Zhao (MS) carbon and nitrogen fluxes in coastal ecosystems (located at Fudan Univ. Shanghai, China)
2005-07. Xiaowen Wu (MS) Thesis: **"**Conditional inversion to estimate parameters from eddy flux observations"**.**
2004-07. Weimin Quan (Ph.D.) Biogeocehmical cycles and food webs (located at Fudan Univ. Shanghai, China)
2003-05. Xiaowen Wu (MS) modeling study of invasive effects on carbon and nitrogen cycles (located at Fudan Univ. Shanghai, China)
2003-07. Chengzhang Liao (Ph.D.) Dissertation: "The effects of invasive alien plants on ecosystem carbon and nitrogen cycles: A case study of *Spartina alterniflora* invasion in the Yangtze estuary and a meta-analysis" (located at Fudan Univ. Shanghai, China)
2003-07. Xuhui Zhou (Ph.D.) Dissertation: "Responses of soil respiration and ecosystem productivity to climate change in southern Great Plains".
2002-05. Afzal Subedar (MS). Thesis: "Effects of warming and clipping on carbon and nitrogen content and their isotope ratios in soil organic matter aggregates in a tall grass prairie ecosystem".
2001-04. Asfaw Tedla (MS) Thesis: "Carbon and nitrogen dynamics and microbial community structure of a tall grass prairie soil subjected to simulated global warming and clipping".
2000-02. Sara Bowdish (MS, coadvised with Linda Wallace). Thesis: "The effects of warming and land-use on species composition in the tallgrass prairie"
2000-05. Bo Su (Ph.D.) Dissertation: "Interactions Between Ecossytem Carbon, Nitrogen and Water Cycles under Global Change: Results from Field and Mesocosm Experiments".
2000-2002. Shiqiang Wan (Ph.D.) Dissertation: "Responses of a Tallgrass Prairie to Experimental Warming".

1999-2002. Dafeng Hui (Ph.D.) Dissertation: "Experimental and Modeling Studies of Canopy Radiation and Water Use Efficiencies, Soil Respiration and Net Ecosystem Carbon Exchange".

Undergraduate and high school students (a total of 38)

2024. Angie Ortiz, Warwick Valley High School, NY
2023, Solange Ingabire, Earth University, Costa Rica, Agriculture research
2023. Javier Baquero, Universidad de los Andes, Colombia
2023, Manfred Lim Jericho High School in Long Island, New York
2022, Allelua Niyokwizera, Earth University, Costa Rica, Agriculture research
2021, Nico Cereghini, Arizona State Unviersity, Computer science.
2019, Danna Du from University of Virginia but doing summer work at Nortehrn Arizona University.
2017-18. Wei Song, Computer science major
2017. Xinyuan Ma
2016. Anh Hoang, Norman High School
2015. Qi Luo, Beijing Normal University as visiting student at OU
2014. Austin McCullough
2014. Shelby K. Thomas
2013. Yueqi Tan, Beijing Normal University as visiting student at OU
2013-2014. Andrew Williams
2013. Ashley Eddy
2012. Mark Morrison
2012. Shanshan Luo
2011-2012. Erin Weese
2010. Zak Barton
2009. Kari Kerwin,
2009. Jonathon Whalen
2008. Nathan Fite, Ecohydrological responses to climate change
2008. Michael Kistenmacher, Modeling of species dynamics
2007. Connor Ferguson from Norman High School: Summer intern.
2007. Rachael Carnes from Hendrix College: Summer intern
2007. Christopher Clary: Capstone project on soil crust in grasslands.
2006. William Snodgrass: Lab assistance
2004, summer. Jack Miller. Lab and office assistance.
2002-05. Taylor Clark, Assistance in literature study and office work.
2002 Ryan Hook from U. of Oklahoma. Ecosystem warming experiment.
2002-2003 Cody Sheik from U. of Oklahoma. Ecosystem warming experiment.
2001. Cassy Harnes from U. of Oklahoma. Ecosystem warming experiment.
2000. Tze-yuin Loh from U. of Oklahoma, ecosystem nitrogen cycling
2000-01. Gwen Cloud from U. of Oklahoma, biocomplexity and global warming effects on prairie.
1999. Edmond H. Mamou from Kalamazoo college, MI. Mathematical Ecology of carbon processes.
1999-2000. Luke Farbar from U. of Oklahoma, study global warming effects on tallgrass prairie.
1998. Vicker Rameker from Colorado State U. Human interactions in the Tahoe Basin ecosystems.
1995-97. Gavin Chandler from the University of Nevada, study plant responses to elevated CO_2.
1994-95. Susan Pederson from the University of Nevada, study plant responses to elevated CO^2.

Visiting students, professors and Scientists (a total of 132)

2026-pres. Hui Guo, Professor from Nanjing Agricultural University
2025-pres. Jiahui Lin, student from Zhejiang University, China
2025-pres. Xinyuan Zhang, student from Institute of Geographical Sciences and Natural Resources Research, Chinese Academy of Sciences, China.
2025-pres. He Lyu, student from Zhejiang University, China
2025-pres. Shouguo Zhang, student from Peking University, China
2025-pres. Yair Mau, Professor, Hebrew University of Jerusalem, Isearl
2025-pres. Yuanliu Hu, Post-doc, Chinese Academy of Sciences, China
2024-pres. Miaoying An, Post-doc, Chinese Agricultural Academy of Sciences, China
2024-pres. Jiwen Cui, Post-doc, Chinese Agricultural Academy of Sciences, China
2024-25. Xin Liu, Associate Professor, Shandong Agriculture University, China
2024-25. Chengcheng Gang, Associate Professor, Northwest A&F University, China
2024-25. Qingguan Wu, Student from Zhejiang University, China
2024-25. Yuan Wen, Professor from China Agricultural University, China.
2023-24. Qiao Liu, visiting student from Jaingxi Agricultural University, China
2023-24. Lili Dong, Institute of Applied Ecology, Chinese Academy of Science, China
2023-24. Cuijuan Liao, Visting student from Tsinghua University, China
2023. Healthy Throop, Professor from Arizona State University
2023. Natasha Wesely, student from Northern Arizona University.
2022-23. Mingming Wang, Visiting student from Zhejiang University, China.
2022-23. Guofeng Yang, Visiting student from Zhejiang University, China
2020-21. Fuqiang Wang, Visting Student, China Agricultural University, China.
2019-22. Qingwei Sun, Visiting scholar from National Geography Society.
2019-21. Zhaopeng Song, Visiting student, Beijing Forestry University, China
2019-21. Zhaolei Li, Visting post-doc, Chinese Academy of Sciences, China
2019-20. Wei Ning, Visisting student from East China Normal University, China
2019-20. Wenjie Liu, Associate Professor, Hainan University, China.
2019-20. Jing Fang, Associate professor, Northwest institute of Eco-Environment and Resources, Chinese Academy of Sciences, Lanzhou, China
2109-20. Xingzhao, Associate Professor, Anhui Agricultural University, China
2019-20. Xioxiao Zhu, PhD student, Institute of Remote Sensing and Digital Earth (RADI), Chinese Academy of Sciences, Beijing, China
2019-20. Sheng Nie, Assistant Professor, Institute of Remote Sensing and Digital Earth (RADI), Chinese Academy of Sciences, Beijing, China
2019-20. Zhiwei Xu, Assocate Professor, Northeast Normal University, China.
2019-20. Li Gao, Associate Professor, Institute of Grassland Research of Chinese Academy of Agricultural Sciences, China
2019-20. Jingsong Wang, Assistant Professor, Institute of Geographical Science and Natural Resources Research, Chinese Academy of Science, Beijing, China
2019-20. Ye Yuan, Assistant Professor, Anhui Normal University, Wuhu, China
2019-20. Liang Yao, Assistant Professor, Anhui Normal University, Wuhu, China
2019-20. Beibei Zhang, Professor, Baoji University of Arts and Sciences, Baoji, China
2019. Dafeng Hui, Professor, Tennessee State University
2018-20. Minzhong Zou, Ph.D. student, China Agricultural University, Beijing, China
2018-19. Jie Li, Ph.D. student, Northeast Normal University, Changchun, China
2018-19. Shuli Niu, Professor, Institute of Geographical Science and Natural Resources Research, Chinese Academy of Science, Beijing, China
2018-19. Xuehe Lu, Assistant Professor, Nanjing University, Nanjing, China
2018-19. Fandong Meng, Postdoc, Institute of Tibetan Plateau Research, Chinese Academy of Sciences, Beijing, China
2018-19. Wen Yang, Associate Professor, Shaanxi Normal University, Xi'an, China

2018-19. Qindi Zhang, Associate professor, Shanxi Normal University, Taiyuan, China
2018-19. Dandan Li, Assistant Professor, Chengdu Institute of Biology, Chinese Academy of Sciences, Chengdu, China
2018-19. Ding Guo, Assistant Professor, Lanzhou University, Lanzhou, China
2018. Jing Li, Ph.D. student, Nanjing University, Nanjing, China
2018. Feng Tao, Student, Sun Yat-sen University, Guangzhou, China
2018-19. Xiangming Fang, Assistant Professor, Jiangxi Agricultural University, Nanchang, China
2017-18. Enqing Hou, Assistant Professor, Southern China Botanical Garden, Chinese Academy of Sciences, Guangzhou, China.
2017-18. Yan Yan, Assistant Professor, Guangxi Normal University, Guangxi, China.
2017-18. Wanxia Peng, Assistant Professor, Institute of Subtropical Agriculture, Chinese Academy of Sciences, China.
2017-19. Andong Cai, Ph.D. student, Chinese Academy of Agriculture Sciences. Beijing, China.
2017-18. Tianan Zhang, Ph.D. student, Nanjing Forestry University. Nanjing, China.
2017-18. Jing Wang, Ph.D. student, East China Normal University, Shanghai, China.
2017-18. Deli Zhai, Insitute of Kanmin Botany, Chinese Academy of Science, Qunnan, China
2017-18. Chengjie Ren, Ph.D. student, Northwest A&F University, Yangling, China
2017. Gang Xu, Assistant Professor, Southwest University of Science and Technology, Mianyang, China
2017. Zhongfei Li, Associate Professor, Southwest Forestry University, Kunming, China
2016-17. Rong Yang, Associate Professor, Cold and Arid Regions Environmental and Engineering Research Institute, Chinese Academy of Sciences, Lanzhou, China
2016-17. Lei Huang, Professor, Cold and Arid Regions Environmental and Engineering Research Institute, Chinese Academy of Science, Lanzhou, China
2016-17. Qin Peng, Associate Professor, Institute of Geographical Science and Natural Resources Research, Chinese Academy of Science, Beijing, China.
2016-17. Mianhai Zheng, Ph.D. student, South China Botanical Garden, Chinese Academy of Science, Guangzhou, China
2016-17. Xuan Wei, Ph.D. student, Cold and Arid Regions Environmental and Engineering Research Institute, Chinese Academy of Science, Lanzhou, China
2016-17. Guanghui Ming, Ph.D. student, Tsinghua University, Beijing, China
2016-18. Zhenggang Du, Ph.D. Student, East China Normal University, Shanghai, China
2016-18. Zhenghu Zhou, Ph.D. student, Northeast Forestry University, Harbin, China.
2016-17. Dayong Zhao, Professor, Hohai University, Nanjing, China
2016-17. Yuemin Yue, Associate Professor, Assistant Prof., Institute of Subtropical Agriculture, Chinese Academy of Sciences
2016-17. Haijun Yang, Assistant Professor, Institute of Geographical Sciences and Natural Resource Research, Chinese Academy of Sciences, China
2016-18. Xuan Xue, Professor, Cold and Arid Regions Environmental and Engineering Research Institute, Chinese Academy of Sciences, China
2016-17. Fei Peng, Assistant Professor, Cold and Arid Regions Environmental and Engineering Research Institute, Chinese Academy of Sciences, China
2016-17. Bo Liu, Associate Professor, Nanjing University of Information Science and Technology, Nanjing, China
2016-17. Hanyue Chen, Assistant Professor, Fujian Agricultural and Forestry University, China
2016. Zhongkui Luo, Research Scentist, CSIRO Agriculture Flagship, Australia
2016. Hongfei Yang, Assistant Professor, Anhui Normal University, Wuhu, China
2015 Benjamin Quesada, Karlsruhe Institute of Technology (KIT) - Campus Alpin, Garmisch-Partenkirchen (DE)

2015-17. Hui Zhao, Assistant professor, Institute of Mountain Hazards and Environment (IMHE), Chinese Academy of Sciences (CAS), China
2015-16 Yugang Wang, Associate Professor, Xinjiang Institute of Ecology and Geography, Chinese Academy of Sciences, Urumqi, China.
2015-16 Shengyun Chen, Associate professor, Cold and Arid Regions Environmental and Engineering Research Institute, Chinese Academy of Sciences, Landzhou, China
2015-16 Yuefang Zhang, Associate Professor, Institute of Agricultural Resources and Environment, Jiangsu Academy of Agricultural Sciences, China.
2015-16 Yuying Wang, Associate Professor, Center for Agricultural Resources Research, Institute of Genetics and Developmental Biology, CAS, Shijiazhuang, China.
2015-16 Xingjie (Chris) Lu, CRISO, Australia
2015-16 Wei Zhang, Associate Professor, Institute of Subtropical Agriculture, CAS, Changsha, China
2015 Junguo Hu, Assistant professor, , Zhejiang Forestry University, Linai, China
2015 Lifu Sun, Professor, Shaoxing University, Shaoxing, China
2015. Haoyu Xu, Ph.D. student, Tsinghua University, Beijing, China
2015. Tao Zhang Xu, Ph.D. student, Tsinghua University, Beijing, China
2014-15 Jianfen Guo, Associate professor, Fujia Norman University, Fuzhou, China
2014-15 Yaozhan Xu Ph.D. student, Wuhan Botanical Gardon, Chinese Academy of Science, Wuhan, China
2014 Yizhao Chen, Ph.D. student, Nanjing University, Nanjing, China
2014 Xianotian Xu, Ph.D. student, Peking University, Beijing, China
2014. Dai Jia, Ph.D. student, Tsinghua University, Beijing, China
2014 Natasja Van Gestel, Postdoc, Northen Arizona University
2014-15 Ji Chen, Ph.D. student, Institute of Earth Environment, Chinese Academy of Science, Xi'an, China
2014-15 Junfeng Wang, Associate Professor, Institute of Cold and Dry Region Environment and Engineering, Chinese Academy of Science, Landzhou, China.
2013-14. Huatian Wang, Shanghai Technology University, China.
2013 Changfu Huo, Institute of Applied Ecology, Shenyang, China
2013-14. Changting Wang, Professor from Southwest University for Nationalities, China
2013-2014. Shiqiang Wan, Professor from Henan University, China
2013, Anders Ahlström from Lund University, Sweden for three weeks in Oct.
2013-14. Xiankai Lu, Associate professor from South China Botanical Garden, the Chinese Academy of Sciences, China
2013-14. Guangxuan Han, Associate Research Professor from Yantai Institute of Coastal Zone Research, Chinese Academy of Sciences, China
2013. Qing Li, Visiting student from Tsinghua University, China.
2013 Kees Jan van Groenigen, Northern Arizona University (one week in Jan.)
2012- 2013. Xiaoming Xu, Research Assistant Professor from Shanxi University, China
2012- 2013. Wei Zhang, Assistant Professor from South China Botanical Garden, the Chinese Academy of Sciences, China
2012-2012. Xinfang Chen, Associate professor from Hehai University, China
2011-2012. Ruisen Luo, Visiting student from Zhejiang University, China.
2010-2011, Huajun Fang, Associate Professor, Institute of Geographical Sciences and Natural Resource Research, Chinese Academy of Science, Beijing, China.
2010-2011, Zhibin He, Associate Professor, Institute of Cold and Dry Region Environment and Engineering, Chinese Academy of Science, Landzhou, China.
2009-2010, Guojing Yang, Associate Professor, Institute of Cold and Dry Region Environment and Engineering, Chinese Academy of Science, Landzhou, China.

2009-2011, Lihua Zhou, Associate Professor, Institute of Cold and Dry Region Environment and Engineering, Chinese Academy of Science, Landzhou, China.
2009-2011, Ding Guo, visiting student from Lanzhou University, China.
2009. Chuankuan Wang, Professor, Northeastern Forestry University, Herbin, China.
2008-2010. Xiaohong Jia, Associate Professor, Institute of Cold and Dry Region Environment and Engineering, Chinese Academy of Science, Landzhou, China.
2008. Shuli Niu. Associate Professor, Institute of Botany, Chinese Academy of Sciences.
2007-09. Xiaoli Cheng, Associate Professor, Wuhan Botanical Garden, Chinese Academy of Sciences.
2006. Sarah Briden, Graduate student, University of West Virginia.
2006. 2007-09. Xian Xue, Associate Professor, Institute of Cold and Dry Region Environment and Engineering, Chinese Academy of Science, Landzhou, China.
2006. Tao Wang, Director and Professor, Institute of Cold and Dry Region Environment and Engineering, Chinese Academy of Science, Landzhou, China.
2006. Wenwei Ren, Associate Professor from Fudan University, Shanghai, China. Environmental Sustainability
2003-04 Yuan An, Associate Professor from Jiatong University, Shanghai, China. Grassland ecology.
2003. Jianchan Yang. Professor from Yangzhou Univesity, China. Physiological ecology
2002. 2003. Deqiang, Zhang, Associate Professor of South China Institute of Botany, Guangzhou, China. Global patterns of controlling factors of litter decompositions in terrestrial ecosystems
2001-2002. Meichun Yan from Nanjing Agricultural Univesity, China.
1999-2000. Asfaw Belay Tedla from Unviersity of Pretoria, South Africa
1999-2000. Antonio Cueto from Universidade de Santiago de Compostela, Spain.
1998-99 Shiqiang Wan. Ecosystem and watershed ecology.
1999. Belinda Medlyn from U. of Edinburgh. Modeling canopy carbon uptake in forests.
1998. Jesus M. Txurruka, Professor from U. of Basque Country, Spain. Growth modeling of *Arion ate*.
1997-98. Hui Dafeng from Yangzhou U, China. Ecosystem modeling.
1995. Xueli Cheng from Desert Research Institute, China. Ecophysiology of desert plants.

Technician and Other staffs (6)

6. Wendy Martin, Lab management. 2010.
5. Cory Buchanan, Construction of a warming and precipitation experimental facility. 2008-2009.
4. Lynda Snake, accountant for financial management of research projects. 2000-2010.
3. Solja Lipitsainen. Field technician for the warming experiments. 2002-03.
2. Nancy Zehrbach. Field/lab technician for the warming experiments. 2002-05.
1. DeLora Mowery, Field technician for global warming studies. 2001-02.

PROFESSIONAL ACTIVITIES

Invited seminars/talks (311)

2025 (12)

AGU annual meeting, B078. Soil as a solution to climate change? Insights from empirical, modeling, and bigdata studies, December 19, New Orlean, LA,

AGU annual meeting, session B011. Advancing biogeochemical cycle modeling with artificial intelligence (AI): Bridging data-driven methods and process-based approaches, December 17, New Orlean, LA,

International Forum on Advanced Environmental Sciences and Technology (iFAST), November 12, delivered virtually

Panelist, Catalyzing New York State's Carbon Farming Future, Carbon Harvest @ Cornell Tech, September 25, New York City
Past, Present, & Future of Northern Peatlands – An International Workshop, September 16-18, Duluth, Minnesota
The first session of China carbon dioxide removal workshop (CCDR1), August 22, Beijing (delivered virtually)
Special Session 20, Ecological Society of America (ESA) annual meeting- Using AI to Bridge Soil, Microbes, Plants, and the Atmosphere, August 11, Baltimore, Maryland.
Department of Geography, National University of Singapore, July 30
Google Alphabet talk series, July 8 (delivered virtually)
Yale Center for Natural Carbon Capture Spring 2025 Symposium: AI for Natural Climate Solutions, May 8 and 9, New Haven, CT
3rd Forest vegetation dynamic conference, April 10, Woods Hole, USA (delivered virtually)
The AI Institute for Next Generation Food Systems or AIFS, Jan. 15, Virtual.

2024 (8)
UN FAO World Soil Day, 5 December, New York City
AGU session: Biogeochemical Cycles of Carbon, Oxygen, Nitrogen, Phosphorus, Sulfur, and Silicon in Contemporary Earth Systems. 9-13 December, Washington DC, USA
The 10th International Symposium on Forest Soils (ISFS 2024), 15-19 October Hangzhou, China.
College of Environmental and Resource Sciences, Zhejiang University, 14 october, Hangzhou, China
Terrestrial carbon cycle forum, 12 October, Xi'An, China
Science and Management: Exploration of ecological carbon sequestration pathways and middle- and long-term policy, 21 September, Beijing, China.
Frontier Forum on Global Change Ecology: Global Change Ecology towards carbon neutrality, 19-22 September, Beijing, China
EGU session Terrestrial Ecosystem restoration and carbon neutrality, 14-19 April, Vienna, Austria

2023 (9)
AGU session GC44A: A Multidimensional Perspective of the Impacts of Climate Extremes on Terrestrial Ecosystems, 11-15 December, San Francisco
AsiaFlux 2023: The Role of AsiaFlux in the Era of Carbon Neutral and Beyond, Nov. 27th –Dec. 1st, 2023, Jeju Island, Korea
A BiCRS/WHS INFORMATIONAL WORKSHOP on BIOMASS STORAGE AND BURIAL FOR CARBON REMOVAL, November 15-17, Washington DC
WCRP Open Science Conference ADVANCING CLIMATE SCIENCE FOR A SUSTAINABLE FUTURE, in Kigali, Rwanda. October 23-27.
China-US-Europe joint workshop on Carbon cycle in the climate-vulnerable regions: modeling and observations, Nanjing, China, Auguest 1-3
ITISE-2023. CFP. Int.Conference Time Series and Forecasting. Gran Canaria, 12-14 July, 2023 (Spain)
Clubhouse, Microbial carbon use efficiency promotes global soil carbon storage, Virtual, June 26
US GCRP/NACP CDR workshop, Measuring, Reporting, and Verifying Terrestrial Carbon Dioxide Removal. February 22.
ChinaFlux20, Manageable Land Carbon Cycle Towards Negative Emissions. Virtual. February 17.

2022 (12)
Southwest University College of Nature Resource and Environment, China. Deep learning optimizes model prediction of land carbon sequestration with big data. Virtual. December 20.
Zhejiang Agricultural and Forestry University, China, Deep learning optimizes model prediction of land carbon sequestration with big data. Virtual. December 17.

Hainan University, China, Machinisms underlying terrestrial contributions to carbon neutrality. Virtual. November 14.
Cornell Biogeochemistry seminar, Non-steady-state biogeochemistry. October 14.
Cornell University Soil and Crop Science Graduate seminar, Microbe-iron interactions control lignin decomposition in soil. Virtual. Sept 15.
Ecological Society of China annual meeting, No net change in soil organic carbon after 20-year Experimental Warming in A Tallgrass Prairie. Virtual. August 28.
Zhejiang University global summer school, Cina, Mechanisms underlying spatial distributions of soil organic carbon storage over the globe. Virtual. August 18.
New Directions in Land Data Assimilation workshop, Spatially and temporally varying parameters for Earth System Models. Virtual. June 14, 2022
Soils in the Climate Crisis: Modeling Microbiomes During Disturbance workshop, How to Incorporate Microbiome into Earth System Models? Virtual. June 9.
ESA Asian American and Pacific Islander Heritage Month, Contributions by Asian Americans and Pacific Islanders to Ecology and Climate Change Science. Virtual. May 4.
DOE SPRUCE project monthly meeting, Spreading or shrinking of model uncertainty in simulating peatland carbon dynamics. Virtual. March 1
Biological Sciences, Northern Arizona University, Moving Attractor of the Land Carbon Cycle under global change. Virtual. Feb 25.

2021 (8)
Stable isotope ecological conference, Using ^{14}C data to quantify contributions of land ecosystems to carbon neutrality. Virtual. October 16, 2021
Department of Hydrology and Atmospheric Sciences, University of Arizona, Improving Earth System Models for Predicting Land Responses to Climate Change. October 7, 2021
Tianjin University, Moving Attractor of the Land Carbon Cycle under global change. Virtual. July 6, 2021
Sino-Eco Club, My path of becoming an ecologist. Virtual. June 2021
The 11th lecture series on Modern Ecology, Accruately predicting the contributions of land ecosystems to carbon neutrality: Methodological considerations, Virtual, May 22.
SOC benchmarking, How realistically can we represent soil organic carbon in earth system models?. Virtual, March 31, 2021
NACP 7th open science meeting, Retrieving patterns and mechanisms from big data via PRODA (PROcess-guided deep learning and DAta driven modelling). Virtual March 12, 2021
Wiley Webinar in China, Global Change Biology, The Journal, My Research, and Prospects. Virtual, Jan. 21.

2020 (1)
Invited presentation at ESA annual meeting, Big data, process understanding, and ecological forecasting. August 3-6.

2019 (14)
Center for Agricultural Resources Research, Chinese Academy of Sciences, Soil carbon loss by priming vs. gain by replenishment. October 11.
Beijing Normal University, Theoretical Ecosystem Ecology, October 10.
Aarhus University, Complex Carbon Cycle Phenomena Governed by Simple Rules. September 20.
Training course Ecological Modeling at East China Normal University, Soil carbon loss by priming vs. gain by replenishment. August 31.
Workshop Theoretical Ecology, Chongming, Shanghai, China, Theoretical Ecosystem Ecology: Recent Progress and Future Imperatives. August 21.
School of Ecology and Environmental Sciences, Yunnan University, Ecological forecasting: The next frontier of research in ecology. June 27.

Institute of International Rivers and Eco-security, Yunnan University, Complex Carbon Cycle Phenomena Governed by Simple Rules. June 26.
Kunming Instutute of Botany, Chinese Academy of Sciences, Ecological forecasting: The next frontier of research in ecology. June 26.
Xishuangbanna Tropical Botanical Garden, Chinese Academy of Sciences, Theoretical foundation of land Carbon Cycle, June 24.
East China Normal University, Complex Carbon Cycle Phenomena Governed by Simple Rules. June 21.
University of Chinese Academy of Sceinces, Ecological forecasting. April 28.
Pacific Northwest National Laboratory, DOE, CLM5 Matrix Model and Science behind it. April 18.
Joint NCAR-NEON workshop on ecological forecasting, How to realize ecological forecasting? April 9.
Uncertainty workshop, Leeds University, UK, Unifying Land Carbon Cycle Models and Unified Diagnostic System. January 9.

2018 (15)
South China Botanical Gardon, Chinese Academy of Sciences, Linking experiments with models to realize ecological forecasting. December 29
Colllege of Environmental Sciences, Sun Yat-sen University, Data-Driven Microbial Modeling for Soil Carbon Dynamics. December 28.
Colllege of Atmosphere Sceinces, Sun Yat-sen University, Convergence of Land Carbon Cyclce. December 28.
AGU Fall Meeting, invited talk, Soil Respiration and Carbon Dynamics as Controlled by Microbial Extracellular Enzyme Activities: Meta-analysis Results and Implications for Earth System Modeling, December 11.
LTER All Scientists Meeting, Ailomar, California, Linking experiment/observation to models. October 1-3.
SICCS Ecoinformatics meeting, Unifying land carbon cycle models, September 24
Oak Ridge National Laboratory, DOE, Unifying land carbon cycle models. August 27.
Erguna Research Station, Chinese Academy of Sciences, Data-model integration for Extreme Drought in Grasslands Experiment. July 13
Institute of Agricultural Resources and Regional Planning, Chinese Academy of Agricultural Sciences, Linking experiments with models. July 11,
Department of Earth System Sceunce, Tsinghua University, Convergence and deviations of land carbon cycle. June 5
Xinjiang Ecology and Geography Institute, Chinese Academy of Sciences. Linking Experiments to Models. July 2
The 5th Forum on Global Change for graduate students, Wuxi, China, Future directions of land model development and applications of super computing, May 30.
Landscape Conference, Berlin, Germany, Microbial Modeling and Beyond. March 12.
DOE RUBISCO project meeting, A Unified Diagnostic System for Uncertainty Analysis of Land Carbon Cycle Models. Feb 16, 2018
CZO/LTER/NEON/ISMC joint workshop, Bourlder, CO. EcoPAD to promote interactive model-observation research. Feb. 13,

2017 (5)
Nanjing Agricultural University, Data-Driven Microbial Modeling for Soil Carbon Dynamics. Decemer 20.
AGU Fall meeting, A Unified Diagnostic System for Uncertainty Analysis of Land Carbon Cycle Models, December 11-15.
MsTMIP annula meeting, Matrix Approach to Land Carbon Cycle Modeling. October 16-17.
University of Montpellier, French, Model-experimental integration toward real-time ecological forecasting, May 17

LASG, Institute of Atmospheric Institute, Recent Advances in Land Carbon Cycle modeling, January 10.

2016 (13)

Distinguished Lecture for the Biogeosciences (BG) Section at the 13th Annual Meeting of the Asia Oceania Geosciences Society, Beijing from July 31 to 05 August, 2016.

Workshop "Earth system model coupling", Beijing, China, June 28

Department of Ecology, Eastern China Normal Universtiy, June 24,

International workshop "Nutrient limitation on land: how accurate are our global land models?", Yanglin, China, June 15-17

Northwestern Agricultural and Forest University, Yanglin, China, June 14.

Northwestern Polytechnical University, Xi,an, China, June 13.

Department of Hydrology and hydraulic engineering, Tsinghua University, June 2

International Land Model Benchmarking (ILAMB) Workshop, Washington, DC, USA, May 16–18, 2016

Institute of Ecology and Environment, Le Centre national de la recherche scientifique, Montpellier, France, April 16.

CLIMMANI/INTERFACE workshop "After the extreme: Measuring and modeling impacts on terrestrial ecosystems when thresholds are exceeded" *Florence, Italy; 12th-15th April, 2016.*

AnaEE – International Conference, From Experimentation to Global Prediction, 2 - 3 March 2016 - Paris, France

Department of Global Ecology, Carnegie Institution of Sciences, Stanford, CA, Jan. 26

Operationalizing Ecological Forecasts, NEON workshop, USGS Powell Center, Ft. Collins, CO, January 6-8

2015 (22)

DOE workshop on trait methods for representing ecosystem change, Rockville, MD, Nov 17-18

School of Ecological and Environmental Sciences, East China Normal University, Shanghai, China, Sept. 26

Shanghai Academy of Enviornmental Science, Shanghai, China, Sept. 25

14th annual meeting of Ecological Society of China, Chengdu, China, Sept. 23

Research Center for Eco-Environmental Sciences, CAS, Beijing, China, Sept. 20

Department of Biology, University of New Mexico, Albuquerque, NM, August 20

A joint symposium between Colorado State University and Hawkesbury Institute for the Environment, University of West Sydney, Australia, August 17

Ecology Forum, Instittue of Geographical Sciences and Natural Resource Research, CAS, Beijing, China, July 16

FLUXNET Synthesis Workshop: Mining FLUXNET and other carbon data sources to inform Earth system models, Beijing, China, July 14-16

Institute of Botany, Chinese Academy of Sciences, Beijing, China, July 13

School of Environment, Tsinghua University, June 9

College of Global Change and Earth System Science, Beijing Normal University, May 13

College of Biology and the Environment, Nanjing Forestry University, Nanjing, China, May 10

College of Pastoral Agriculture Science and Technology, Lanzhou University, Lanzhou, China, May 6

Institute of Agricultural Resources and Regional Planning, Chinese Academy of Agricultural Sciences, Beijing, China, May 3

Department of Biological Science, University of Texas at El Paso, April 24

Workshop: Recent developments in data-model fusion for carbon and GHG science, Paris, France, April 21 (delivered through webnar)

Department of Earth and Environmental Sciences, Lehigh University, March 20

Center for Ecological Research, Northeast Forestry University, Harbin, China, March 9.
Institute of Subtropical Agriculture, CAS, Changsha, China, March 5.
5th North American Carbon Program (NACP) PI meeting, Washington DC, Jan. 28.
Department of Physical Geography and Ecosystem Science, Lund University, Sweden, Jan. 20

2014 (19)
Department of Biology, West Virginia, Morgantown, WV, December 1
International workshop on Big-Data in Geo-computing. Tsinghua University, Nov. 10 Big Data Forum - HPC China 2014, Guangzhou, China Nov. 7th - 8th
International innovation team meeting, Cold and Arid Regions Environmental and Engineering Research Institutute, Chinese Academy of Sciences, Lanzhou, China, Nov. 4.
National Extreme Events Data and Research Center (NEED Center) Workshop, Oak Ridge National Laboratory, Tennessee, July 31.
College of Resources and Environment, Fujian Agriculture and Forestry University, China, May 21
College of geographical Science, Fujian Normal, Fuzhou, Fujian, China, May 21
Institute of Urban Environment Chinese Academy of Sciences, Xiamen, China May 20
College of the Environment and Ecology, Xiamen University, Fujian, China, May 20
The 5th International Forum for Young Ecologists, Henan University, China, May 16
INTERFACE workshop: Using results from global change experiments to inform land model development and calibration, Beijing, May 12 2014
DOE National Lab Belowground mini-workshop, Potomac, MD May 8 2014
Frontier Lecture Series of Earth System Sciences, Beijing Norman University, Beijing China, April 28
Interational Institute for Earth System Sciences, Nanjing University, China, April 20
Workshop: Advancing software for ecological forecasting, Championge, IL. March 25
Department of Earth and Environment, Florida International University, Miami, FL, Feb. 28
Soil research group, University of Melbourne, Carlton Vic, Australia, Feb. 7
Melbourne School of Land and Environment, University of Melbourne, Carlton Vic., Australia, Feb. 6
CSIRO Ocean and Atmosphere Flagship, Aspendale, Vic., Australia, Feb. 5

2013 (14)
Institute of Soil Science, Chinese Academy of Sciences, Nanjing, China, December 17
International Center for Ecology, Meterology, and Environment (IceMe), Nanjing University of Information Science and Technology, Nanjing, China, December 17.
Department of Biological Sciences, Tennesee State University Nov. 6
Soil Science Society of America Session "Towards a Conceptual Model of Soil Carbon Cycling Across Scales" Nov. 5
Batsheva de Rothschild Seminar on "Coordinated approaches for studying long-term ecosystem responses to global change", Ramat Hanadiv Park, Israel - September 29th – October 4th, 2013
OU Botanical Society, September 27.
INTECOL Symposium "Global Change and Ecosystem Ecology: Beyond the Study of Nutrient Cycling" 18 to 23 August 2013, London UK
Global Change Research 2013: Coupled Natural & Human Systems, Nanjing University of Information Science and Technology, Nanjing, China, June 18-20.
US-China Carbon Consortium annual meeting, Haikou, Hainan, China, June 14-17
The 7th ISOME**:** International Symposium on Modern Ecology, Guangzhou, China, June 9-15
Steve Pacala Lab, Department of Ecology and Evolution, Princeton University, April 29
EGU session Biospheric feedbacks on the Earth system, Vienna, Austria, April 9.
Institute of Botany, Chinese Academy of Science, China, Jan. 10
Annual meeting, Center for Earth System Science, Tsinghua University, China, Jan. 4

2012 (22)
Center for Earth System Science, Tsinghua University, Beijing, China Dec. 28
Institute of Tibet Plateau Research, Chinese Academy of Sciences, Beijing, China, Dec. 26.
Department of Plant Sciences, University of Illinois at Urbana-Champion, Dec. 10
CSIRO, Atmosphere and Marine Science Division, Aspendale, Nov. 15
University of Melbourne, Melbourne, Australia, Nov. 12
CSIRO, Atmosphere and Marine Science Division, Canberra, Nov. 7
Australia National University, Canberra, Australia, Nov. 7
Macquarie University, Sydney, Australia, Oct. 26
RCN FORECAST New Investigators Conference, Woods Hole, MA, Oct. 8-11
Environmental Sciences Division, Oak Ridge National Laboratory, TN, July 10
3rd international young ecologist forum, Henan University, Kaifeng, China, June 12
Institute of Remote Sensing Applications, Chinese Academy of Sciences, Beijing, June 7
Institute of Botany, Chinese Academy of Sciences, Beijing, June 6
College of Global Change and Earth System, Beijing Nornal University, Beijing, June 4.
Ecological lecture series, Fudan University, Shanghai, May 29-30
Public talk, Star Lecture Series, Fudan University, Shanghai, May 28
National Chiao-Tung University, Taiwan, May 21.
Institute of Geographical Sciences and Natural Resource Research, CAS, April 6.
DOE Workshop: Strategies to Promote Integrated Experiment-Model Approaches to Terrestrial Ecosystem Study, Bethesda, Maryland, March 18-21
School of Natural Sciences, University of California, Merced, March 7-8
Department of Ecology and Evolution, University of California, Irvine, February 16-17
NIMBioS Investigative Workshop: Disturbance Regimes and Climate-Carbon Feedback, Knoxville, TN, Feb 13-15

2011 (15)
DataONE-ILAMB workshop on cyberinfrastructre, NCEAS, Santa Barabra, CA, Nov. 145-17
27th New Phytologist symposium "Stoichiometric flexibility in terrestrial ecosystems under global change. Biosphere 2, Oracle, AZ, USA, 25–28 September 2011
Department of Geological Sciences, University of Texas Austin, August 9,
Carbon Cycle and Climate Conference and 3rd Beijing International Summer School (BISS) on Climate and Environment, Institute of Atmospheric Physics, Chinese Academy of Sciences, Beijing, China, August 1-5.
The 6th International Symposium on Modern Ecology, "Key Topics in Ecology under Climate Change", Nanjing University, Nanjing, China, August 1-6.
Wuhan Botanical Garden, Chinese Academy of Sciences, Wuhan, China, July 21.
Northwest Institute of Plant Biology, Chinese Academy of Sciences, Xining, Qinghai, China, July 16.
Institute of Botany, Ukraine Academy of Sciences, Kiev, June 2
Department of Ecology, the National University "Kyiv-Mohyla Academy", Kiev, Ukraine, June 1
"Beta-Gamma" Workshop, University of Exeter, UK, May 2-3.
Joint open conference by Institute of Global Change Studies, Tsinghua University and Global Change and Earth System Sciences, Beijing Normal University, Beijing Normal University, Beijing, China. April 27.
Department of Biology, University of Illinois Urbana-Champion, March 16.
1st INTERFACE meeting: How Do We Improve Earth System Models? Integrating Earth System Models, Ecosystem Models, Experiments and Long-Term Data. Feb. 28 - March 3, Captiva Island, Florida.
Institute of Biodiversity Science, Fudan University, Shanghai, China, Feb. 21

International Land Model Benchmarking (ILAMB) workshop, Irvine, CA, Jan 24-26.

2010 (6)
Washington University, Nov. 15 University of Wyoming, Oct. 15
Oklahoma Partial Differential Equation Workshop, Norman, Oklahoma, Oct. 8-9.
Fudan University Global Environmental Change Research Institute, Shanghai, China. May 19
University of Toronto, Ontario, Canada, Jan. 26.
Tsinghua University, Beijing, China, Jan. 18
Max Planck Institute of Biogeochemistry, Jena, German, Jan. 14.

2009 (14)
University of Alberta, Edmonton, Alberta, Canada, Dec. 4.
Keynote speech, ClimMani workshop "Climate change, effects on water availability and terrestrial ecosystem responses". in Basel, Switzerland, 21-23rd October 2009.
AmeriFlux annual meeting at DC, Sept. 21-23.
Keynote speech, 8th International Carbon Dioxide Conference, Jena, Germany, Sept 14-18.
High School teachers workshop, Oklahoma School of Science and Mathematics, Oklahoma City, June 10
Carbo-Extreme, European research project, Jena, Germany, June 2. Fudan Ecology Summer School, Shanghai, China, May 22.
National Oceanic and Atmospheric Administration (NOAA) Earth System Research laboratory, Boulder, CO. April 2.
National Center for Atmosphere Research (NCAR) Land Modeling working group (LMWG) and Biogeochemistry working group (BGCWG) annual meeting, Boulder CO. March 30-April 1.
Department of Ecosystem Science and Management, Texas A&M University, March 24. Blackland Research Center, Texas A&M University, Temple March 23.
North America Carbon Program 2nd open science conference, San Diego, CA, Feb. 19.
Department of Biological Sciences, University of Arkansas, Jan. 22.
Department of Ecology and Evolution, College of Life sciences, Fudan University (Jan. 4)

2008 (19)
Department of Biological Science, College of Life Sciences, Zhejiang University, China, Dec. 29
School of Life Sciences, Nanjing University, China, Dec. 25
China's Ecology Lecture Series, Chinese Academy of Sciences, Beijing, Dec. 21
Department of Ecosystem Science and Management, Texas A&M University, September 26.
Laboratoire des Sciences du Climat et de l'Environnement, UMR CEA-CNRS-UVSQ, France, June 9.
Land surface models and FluxNET data workshop, Edinburgh, UK June 5.
Department of Ecology, Nanjing Forestry University, May 23.
International Institute of Earth System Sciences, Nanjing University, May 23.
Southern China Botany Garden, Chinese Academy of Sciences, Guangzhou, China, April 30.
Department of Environmental and Natural Resources, Haiyin Engineering College, China, April 28.
2007
Department of Ecology, Beijing University, (Dec. 26)
Department of Ecology and Evolution, College of Life sciences, Fudan University (Dec. 20)
NSF workshop on data-model assimilation in ecology: Techniques and application, Norman, OK (Oct. 22-24)
AmeriFlux annual meeting, Boulder CO (Oct. 17-19)
International workshop on Automatic soil respiration measurement and analysis, Durham, New Hempshire, (Sep 10-12)
4th international conference on nitrogen, Salvador, Brazil (Oct. 1-5)

EcoVision seminar series, Institute of Geographical Sciences and Natural Resources Research, Chinese Academy of Sciences, Beijing, China (May 21)
Oklahoma EPSCoR, Oklahoma City, (Apr 25)
C-QUEST open science meeting, Oxford, UK (Mar 26-28)

2006 (7)
Kessler Farm Field Laboratory seminar series, University of Oklahoma (Nov. 6)
Chinese Science and Technology Association, Changchun, China (Sept. 26).
Department of Physical and Atmospheric Sciences, Jackson State University, Mississippi (Sept 11)
Institute of Cold and Dry Region Environment and Engineering, Chinese Academy of Science (July 31)
NSF-funded workshop on effects of changes in precipitation on ecosystem functioning in terrestrial ecosystems in Helsinore, Denmark, (May 22-25)
Grazingland Research Laboratory, USDA, El Reno, Oklahoma (Feb. 24)
Symposium on Environmental Sustainability in Rapidly Developing Countries, Lessons from China to be held at the annual AAAS meeting at St Louis in February.

2005 (12)
Institute of Geographical Sciences and Natural Resource Research, Chinese Academy of Science (Dec. 30)
Labtea, Department of Ecology and Evolutionary Biology, Princeton University (Dec. 7) Steve Pacala's lab, Princeton University (Nov. 22)
Ecology Graduate Program, Pennsylvania State University (Oct. 26)
Ecology Graduate Program, Rutgers University (Oct. 7)
Lars Hedin's lab, Princeton University (Sept 20)
Advance Training Class of Ecology, Fudan University, Shanghai, China (Jul. 8)
Institute of Geography and Natural Resources, Chinese Academy of Science (Feb. 24)
Program of geography, Beijing Normal University (Feb. 22)
Institute of Botany, Chinese Academy of Science, China (Feb 21)
Planning workshop on data-model fusion at Duke FACE, Durham, NC (Jan. 13-14)
NSF-funded workshop Modeling Ecosystem Responses to Global Change: Techniques and Recent Advances, Ft Myers, Florida (Jan. 9-12)

2004 (3)
Department of Ecology and Evolutionary Biology, University of Arizona (Feb. 9)
Department of Biological Science, University of Oregon (Jan. 28)
NSF-funded workshop, Carbon Respired by Terrestrial Ecosystems. (Jan. 21-23)

2003 (5)
College of Agricultural Sciences, Yangzhou University (Dec. 28)
Division of Biological Sciences, Kansas State University. (Nov. 20)
6th Meeting of the Carbon Cycle Science Steering Group, Arlington, VA (May 15)
International workshop on "CO_2 x Temperature Interactions" organized by Terrestrial Ecosystem Responses to Atmospheric and Climate Change, Lake Tahoe, CA (April 28-May 1).
Department of Environmental Science, Policy, and Management, University of California at Berkeley (Feb 10)

2002 (8)
Steve Wofsy's labs, Harvard University (May 2).

International workshop on "Transient and Long-Term Responses of Ecosystems to Warming and Elevated CO_2" organized by Terrestrial Ecosystem Responses to Atmospheric and Climate Change, Durham, New Hampshire. (April 28-May 1).
2nd International conference on Astrobiology, Ames, Califronia (April 7-11)
Department of Urban Environment, Beijing University, Beijing, China (March 21)
Institute of Botany, Chinese Academy of Science, Beijing, China (March 18)
College of Agronomy, Yangzhou University, Yangzhou, China (March 14)
College of Hydrological Science, Yangzhou University, Yangzhou, China (March 13)
Biodiversity Science Institute, Fudan University, Shanghai, China (March 9)

2001 (6)
6th International Carbon Dioxide Conference, Sendai, Japan (October 1-5)
College of Agriculture, Shanghai Jiaoton (transportation) University, Shanghai, China (March 22)
Institute of Applied Ecology, Chinese Academy of Science, Shenyang, China (March 14)
Workshop on the Rice-Wheat Free-Air CO_2 Enrichment (FACE) study organized jointly by Japan National Institution of Agro-Environmental Science and Institute of Soil Research, Chinese Academy of Science, Nanjing, China (March 5-9)
Workshop on Biocomplexity in Pinyon-Juniper Woodlands, Northern Arizona University (Jan. 29-31)
Department of Ecology, Evolution, and Organism Biology, The Ohio State University (Jan 11)

2000 (7)
Applied Biomathematics, Stony Brook, NY (Nov. 30)
Oklahoma School of Science and Mathematics (Nov. 28)
FACE2000, Synthesis of Free-Air CO_2 Enrichment (FACE) research results workshop at Tsukuba, Japan (June 23-30)
AmeriFlux NEP Workshop, Michigan (May 4-7)
Department of Plant Biology, University of Illinois at Urbana-Chanpiam (March 30)
Department of Biological Sciences, University of Illinois at Chiago (March 28)
Department of Plant and Soil Sciences, Oklahoma State University (January 24)

1999 (6)
Department of Biological Sciences, Tohoko University, Sendai, Japan (Dec)
National Institute of Agro-Environmental Sceinces at Tsukuba, Japan (Dec)
Tohoku National Agricultural Experimental Station, at Morioka ,Japan (Dec)
Symposium: Plant Responses to the Environment: From Molecules to Populations. Oklahoma Academy of Science, Oklahoma City (Nov)
Department of Botany, Oklahoma State University (September)
Department of Botany, Duke University (March)

1998 (12)
Department of Botany and Microbiology, University of Oklahoma
Department of Biological Sciences, University of Pittsburgh, Pennsylvania
Atmospheric Sciences Center, Desert Research Institute, 1997
Westvaco Forest Science Laboratory, South Carolina
Canada Centre of Remote Sensing, Ottawa, Canada
Daniel B. Warnell School of Forest Resources. University of Georgia.
An IGBP (International Geosphere-Biosphere Programme)-GCTE (Global Change and Terrestrial Ecosystems)/EUROFLUX Workshop "Representing structure and function in ecosystem models -- simplification vs. Complexity in approaches for regional and climate change assessments", Duke University, North Carolina.

Department of Integrative Biology, University of California, Bekerley
Department of Environmental Studies and Regional Planning, Washington State University.
Department of Biology, Hong Kong University of Science and Technology.
Department of Agronomy, Nanjing Agricultural University, China
Agricultural College, Yangzhou University, China.

1996 (6)
Department of Biology, New Mexico State University.
Department of Biology and Microbiology, South Dakota State University.
Annual meeting of the DOE Terrestrial Carbon Processes funding program, Lake Tahoe. An IGBP-GCTE workshop "Plant Acclimation to Elevated CO2", Lake Tahoe, USA. Center of Environmental Sciences and Resources, Portland State University
Center for Environmental Sciences and Education, Northern Arizona University

1995 (5)
An IGBP-GCTE workshop "Plant-Soil Carbon Belowground: The Effects of Elevated CO2", Oxford, UK.
An EPRI global carbon cycle modeling meeting, Garmisch-Partenkirchen, Germany.
An IGBP-GCTE workshop "Stress Effects on Future Terrestrial Carbon Fluxes", Lake Tahoe, USA.
Scripps Institution of Oceanography, University of California, San Diego
Jiangsu Agricultural College, Yangzhou University, China.

1994 (1)
International Society of Ecological Modeling. Symposium on Modularity in Models of Plant Growth.

1993 (3)
National Center of Atmospheric Research. Symposium on Challenges in Atmospheric Chemistry and Global Change: Yesterday, Today and Tomorrow.
Desert Research Institute, University and Community College System of Nevada.
Department of Botany, Duke University.

1992 (1)
Department of Biological Sciences, Stanford University.

1990 (1)
Department of Plant Biology, Carnegie Institution of Washington.

Memberships

American Association for the Advancement of Science (1988-pres.).
American Geophysical Union. (1998-pres.)
Ecology Society of America (1988-pres.)
American Association of Agronomy (1988-1998).
American Institute of Biological Sciences (1990-95, 2001-2005)
Crop Science Society of America (1988-1998).
Botany Society of America (2003-04)
Soil Science Society of America (1988-1998).
Society for Experimental Biology, UK (2003-04).

Advisory services

2020-2023 Co-chair for North America Carbon Program Science Leadershop Group (NACP SLG)

2018-2020. Scientific Advisory Committee for Energy and Environmental Sciences Directorate, Oak Ridge National Laboratory.
2018-2021. Scientific Advisory Committee for ICOS (Integrated Carbon Observation System) Sweden
2017-2023. North America Carbon Program Science Leadershop Group (NACP SLG).
2017-pres. Scientific Steering Committee for AmeriFlux.
2015-2019. Scientific Steering Committee for The State Key Laboratory of Earth Surface Processes and Resource Ecology, Beijing Normal University
2015-2020, Steering committee for "RCN: Drought-Net: A global network to assess terrestrial ecosystem sensitivity to drought"
2013-2016. Scientific Steering Committee of Joint Center for Global Change Studies, Beijing, China.
2013-2016, International innovation research team, Cold and Arid Regions Environmental and Engineering Research Institutute, Chinese Academy of Sciences, Lanzhou, China
2013-2015. Chair of the scientific advisory committee for International Center for Ecology, Meteorology and Environment, Nanjing University of Information Science and Technology
2011-2016. External Advisory Committee for Center for Analysis and Predictions of storms, University of Oklahoma.
2010-2015. Steering committee for "An **I**ntegrated **N**etwork for **T**errestrial **E**cosystem **R**esearch on **F**eedbacks to the **A**tmosphere and **C**limat**E** (**INTERFACE**): Linking experimentalists, ecosystem modelers, and Earth system modelers"
2011-2016, Key Laboratory of Alpine Ecology and Biodiversity, Institute of Tibetan Plateau Research, Chinese Academy of Sciences
2009-2017. Science Advisory Board for the Max-Planck-Institute for Biogeochemistry, Germany
2009-2013. Scientific Steering Committee of the Earth Science Initiative of Tsinghua University, Beijing, China.
2009-2012. External Advisory Board for an European Union project "The terrestrial Carbon cycle under Climate Variability and Extremes – a Pan-European synthesis: *CARBO-Extreme"*
2000-2007 Steering Committee for "Terrestrial Ecosystem Responses to Atmosphere and Climate Change (TERACC), International Global Warming and Elevated CO_2 Research Consortium."

Editorial Services

Editorial boards, *Global Change Biology* (2009-pres.), *Ecological Processes* (2012-2021), *Carbon Balance and Management* (2012- 2020), *Ecological Applications* (2005-2009), *Integrative Journal of Plant Biology* (2005- 2013), *Journal of Plant Ecology* (2007-2015), *Journal of Resources and Ecology* (2010-2015.), *Acta Agronomica Sinica* (2007-2011)

Guest editor, *Proceedings of the National Academy of Sciences of the United States of America* (2023) Nature-based Climate Solution; *Biogeosciences* (2013-2014) "Extreme Cliamte Events and Ecosystem Responses"; *Journal of Geophysical Research-Biogeoscience* (2012-2013) "data-model integration" (2012-13); *Ecosphere* (2012-2013) "Opportunities and Challenges of data assimilation" *Journal of Plant Ecology* (2011-12) for a special feature on "Plants, Temperature Stress, and Global Change: From Organism to Ecosystem."; *Ecological Applications* (2009-2010) for an Invited Feature on Data assimilation and ecological forecasting; *Ecology* (2004-06) for a special feature on Pool-Based Nitrogen Limitation Hypotheses.

Advisory boards to editors, *Global Change Biology* (2007-2008), *New Phytologist* (2007-2012).

Review of portfolios of professors for tenure and promotion

Yale University (2025)

Purdue University (2025)
Colorado State University (2025)
Nanyang Technology University, Singapore (2025)
University of Wisconsin (2) (2025)
University of Arizona (2025)
Zhejiang University, China (2025)
Cornell University (2024)
University of Calirfornia, Bekerley (2024)
Oak Ridge National Laboratory (2024)
Tsinghua University, China (2024)
Peking University, China (2023)
University of Nevada, Reno (2023)
Oak Ridge National Laboratory (2023)
The Weizmann Institute, Israel (2023)
East China Normal University (2021)
Iowa State University (2020)
University of Kenturkey (2020)
University of New Mexico (2020)
University of California, Santa Cruz (2019)
Tennesse State University (2019)
Harvard University (2015)
Harvard University (2013)
Rutgers University (2012, 2013)
University of Maryland (2011)
University of California at Davis (2011)
Harvard University (2006)
Indiana University (2006)
University of California at Berkeley (2005)
University of California at Santa Cruz (2004)
University of Illinois at Chicago (2004)
University of Teledo (2000, 2002).

Review services

2020 DOE panel on EARLY CAREER RESEARCH PROGRAM
2019. NSF panel on EPSCoR program
2018-2020 Biogeosciences Section Fellows Committee, American Geophysical Union.
2015 DOE Review of the Carbon Dioxide Information Analysis Center Funding Proposal for Fiscal Years 2016-2018 Led by Oak Ridge National Laboratory (ORNL), May 19
2011. Oversea reviewer on major grant proposals, National Science Foundation of China. 2008. Panel for the Midwest Center of the National Institute of Climate Change Research. Oct. 2006. Panel for the Northeast Center of the National Institute of Climate Change Research. April. Oversea reviewers of applications to Changjian Scholarship program, China's Minister of Education (2005, 2006)
2004. Scientific Program Panel Review on DOE Consortium for Research on Carbon Sequestration in Terrestrial Ecosystems (CSITE). *8-9 December 2004, Washington, DC*
2002. WESTGEC Regional Scientific Review Board of National Institute of Global Environmental Change (NIGEC), US DOE.
2000. Panelist for the NSF Biocomplexity program. 1994-pres. Review grant proposals for EPA (Environmental Protection Agency), Water and Watersheds

NSF (National Science Foundation), International, Ecosystem, Evolution and Ecology Physiology, Biocomplexity.
USDA NRI (Department of Agriculture, National Research Initiative), Plant responses.
DOE Terrestrial Carbon Processes
NICCR (National Institute of Global Environmental Change), US Department of Energy
NIGEC DOE (National Institute of Global Environmental Change, Department of Energy)
Water Resources Research, Regional Competitive Grants Program, Western Region

1994-pres. Review papers for Science, Nature, Nature Climate Change, Ecology, Ecological Applications, Global Biogeochemical Cylcles, Journal of Geophysical Research, Oecologia, Ecological Modeling, Plant, Cell & Environment, Global Change Biology, Tree Physiology, Functional Ecology, Environmental Science -- International Journal of Policy & Research, Plant Ecology, New Phytologists, Annals of botany, Environmental Science & Technology, Physiologia Plantarum, Acta Ecologica Sinica, Ecology Letter.

1989-92. Associate editor. CAASS (Chinese Association of Agricultural Students and Scholars in America) Journal.

1981-85. Editor for English abstracts. Journal of Jiangsu Agriculture College, China.

Organization of national and international workshops, conferences, and symposia (51)

2023, Co-organizer, AGU session, Advances in Upscaling In Situ Observations to Regions and the Globe Using Machine Learning/AI and Modeling

2023, Co-organizer, AGU session, Advances in Land Carbon Cycle Modeling

2022-23, Co-organizer, NACP/US Carbon Cycle Science Program Workshop: Measuring, Monitoring, Reporting, and Verification (MMRV) for Carbon Dioxide Removal (CDR)

2022, Co-organizer, AGU session, Advances in Land Carbon Cycle Modeling

2022, Co-organizer, AGU session, Advances in Upscaling Networked Observations to Regions and the Globe Using Machine Learning and Modeling

2021, Co-organizer, AGU session, Advances in Land Carbon Cycle Modeling

2020. Oragnizer, ESA Symposium, *Combining Deep Learning and Process-Based Modeling to Advance Ecological Forecasting*. August 3-6, 2020.

2018. Organizer, workshop: Consortium of biogeochemical observation and modeling across LTER sites, LTER All Scientists Meeting, Ailomar, California, October 1-3, 2018.

2017-2018, Organizer, Mini-symposium and training course: New Advances in Land Carbon Cycle Modeling, Flagstaff, Arizona, May 20-26, 2018.

2017-18, Co-organizer, ESA ignite session, Advancing the Predictive Ability of the Global Carbon Cycle in Earth System Models, 103rd ESA Annual Meeting, August 5-10, 2017, New Orleans, LA.

2015-16, Organizer, NACP Workshop: Development of Predictive Carbon Cycle Science, College Park, Maryland, March 7-9, 2016

2015-16, Co-organizer, Enhanacing existing experiements of precipitation manipulations, Sevilleta LTER, New Mexico, May 4-6, 2016.

2015-16, Co-organizer, Frontiers in terrestrial climate feedbacks: Integrating models and experiments to explore climate feedbacks in an increasingly managed and warming world. St. Pete's Beach, Florida, January 31 - February 3, 2016

2015, Co-organizer, Processes Linked to Uncertainty Modelling Ecosystems, *PLUME-MIP Workshop, East China Normal University Shanghai, 25-29 September 2015*

2015, Co-organizer, FLUXNET Synthesis Workshop: Mining FLUXNET and other carbon data sources to inform Earth system models, Beijing, China, July 14-16, 2015

2014-2015, An ESA Organized Oral Session: Terrestrial Carbon Cycle and Nonautonomous System. 100th ESA Annual Meeting (August 9 - 14, 2015), Baltimore, MD

2014-2015, Co-organizer, An ESA Organized Oral Session: The Ecological Impacts of Drought as Revealed Through Experimental Approaches. 100th ESA Annual Meeting (August 9 - 14, 2015), Baltimore, MD

2014-2015, Co-organizer, An ESA Organized Oral Session: Understanding soil microbial responses to climate change with integrated experimental and quantitative approaches at molecular to global scales. 100th ESA Annual Meeting (August 9 - 14, 2015), Baltimore, MD

2014-2015, Co-organizer, an EGU session: Climate extremes, ecosystems and biogeochemical cycles, Vienna, 12-17 April, 2015.

2014-2015, Co-organizer, an EGU session: Earth observation for monitoring and modeling the global energy, water and carbon cycles over land using model-data integration, Vienna, 12-17 April, 2015.

2014, 3rd meeting of NIMBioS working group on terrestrial carbon cycle and nonautonomous system, November

2014, 2nd meeting of NIMBioS working group on terrestrial carbon cycle and nonautonomous system, March

2013-2014, Co-organizer, an EGU session: Climate extremes, ecosystems and biogeochemical cycles, Vienna, 27 April – 02 May, 2014.

2013-2014, Co-organizer, an EGU session: Developments in terrestrial biogeochemical models using model-data integration, Vienna, 27 April – 02 May, 2014.

2013-2014, Organizer, RCN FORECAST Workshop 2014: Representing Soil Carbon Dynamics in Global Land Models to Improve Future IPCC Assessments. June 11-14, 2014, Breckenridge, CO

2013, Co-organizer, AGU session "Data-Model Integration for Improving Biogeochemistry-Climate Feedbacks in Earth System Models With Explicit Microbial Mechanisms with Xiaofeng Xu, Gangsheng Wang and Melanie Mayes. December 9-13, San Francisco.

2012-2015, Organizer, a National Institute for Mathematical and Biological Synthesis (NIMBioS) working group on "Non-autonomous system and terrestrial carbon cycle".

2012-2013, Co-organizer, an EGU session: Climate extremes, ecosystems and biogeochemical cycles, Vienna, 7-12 April 2013.

2012-2013, Co-organizer, an EGU session: Developments in terrestrial biogeochemical models using model-data integration, Vienna, 7-12 April 2013.

2012-2013, Co-Organizer, the 9th International Carbon Dioxide Conference, Beijing, China, June 3-7, 2013

2012, Co-organizer of an AGU session: improving terrestrial biogeochemical models through integrating models with data. San Francisco December 3-7

2011-2013, Co-organizer of a joint USA-Europe conference: Climate extremes and their impact on ecosystems and biogeochemical cycles at Obergurgl, Austria April 2 - 5, 2013

2011-2012, Co-organizer of European Union of Geosciences (EGU) session BG1.6: Climate extremes, ecosystems and biogeochemical cycles. Vienna, Austria, 22 – 27 April 2012

2011-2012, Organizer of an open conference on data assimilation and ecological forecasting at Woods Hole, October 2012.

2011-2012, Chair of the organizing committee for DOE workshop: Strategy to promote integrated experiment-model integration approaches to terrestrial ecosystem study. Washington DC, March 19-21, 2012.

2011-2012. Organizer of National Institute for Mathematical and Biological Synthesis (NIMBioS) Investigative Workshop: *Integration of disturbance ecology and biogeochemistry to predict future dynamics of terrestrial carbon cycle under global change.* Knoxville, Tennessee, USA, Feb 13-15, 2012

2011. Co-organizer of a conference "How Do We Improve Earth System Models: Integrating Earth System Models, Ecosystem Models, Experiments and Long-Term Data", Captiva Island, FL, February 28 –March 3.

2010. Co-organizer of an AGU session "Data assimilation to improve biogeochemical models across multiple scales", San Francisco, December.

2010. Co-organizer of an organized oral session “Long-term warming experiment: what we have learned and what is unknown” at ESA annual meeting, Pittsburgh, PA, August.
2010. Co-organizer of an organized oral session “Combining Experiments, Process Studies, and Models to Forecast the Future of Ecosystems, Communities, and Populations” at ESA annual meeting, Pittsburgh, PA, August.
2010. Organizer of a workshop “Data assimilation and ecological forecasting” held at NEON HQ, Boulder CO, July
2009. Co-organizer of a symposium: “The role of biodiversity for ecosystem processes and services under climate change” for the DIVERSITAS Open Science Conference, Cape Town, October.
2008-11. Co-organizer of National Center for Ecological Analysis and Synthesis working group on Benchmarking ecosystem response models with experimental data from long-term CO_2 enrichment.
2008-09. Organizing committee for North America Carbon Program open science meeting, February 2009, San Diego. CA
2008-09. Co-organizer of New Phytologist Symposium: Carbon cycling in tropical forests, Guangzhou, China, November 2009.
2008. Organizer of an Ecological Society of America Symposium “Toward ecological forecasting, Applications of data-model fusion techniques.
2007. Organizer of a NSF workshop: Data-Model Assimilation in Ecology: Techniques and Applications to be held at Norman, Oklahoma in October
2007. Organizer of one session in Annual AmeriFlux meeting on “Data assimilation and uncertainty analysis”
2007. Co-organizer of organized oral session for 2007 ESA meeting: Ecosystem responses to experimental warming and other global change factors to be held in San Jose, CA in August
2007. Co-organizer of an international symposium for the 2007 Eco-Summit: Back to the Primaries of Ecosystem Mass Transfer: Carbon and Water Cycles, to be held in Beijing, China in May
2006 Organizer of the symposium on Environmental Sustainability in Rapidly Developing Countries, Lessons from China held at the annual AAAS meeting at St Louis in February, 2006.
2006. Co-organizer of the international workshop on effects of changes in precipitation on ecosystem functioning in terrestrial ecosystems held in Helsinore, Denmark, May 2006
2005. Co-organizer of an international workshop on Modeling Ecosystem Responses to Global Change: Techniques and Recent Advances held at Sannibel, FL in January 2005.
2003. Organizer of ESA symposium “Progressive Nitrogen Limitation of Plant and Ecosystem Responses to Elevated CO_2”
2003. Co-organizer of an international workshop on interactive responses of ecosystems to elevated CO_2 and global warming held at Lake Tahoe, CA.
2002 Co-organizer of the international workshop on Transient and long-term responses of ecosystems to elevated CO_2 and global warming.
2000. Co-organizer of the International conference FACE 2000 at Tsukuba, Japan
1997. Co-organizer of an international symposium "Changing Water Regime in Drylands" held at Lake Tahoe, California, June 9-13, 1997.
1996. Chair of the poster session "Plant Physiology: Effects of external variables" in ESA meeting
at Providence, August, 1996
1996. Co-organizer of an IGBP-GCTE international workshop on plant acclimation to elevated CO_2 held at Lake Tahoe, May 19-23, 1996.
1995. Co-organizer of an IGBP-GCTE international workshop "Stress Effects on Future Terrestrial Carbon Fluxes" held at Lake Tahoe May 14-18, 1995.

Other synergistic activities

2018, 2019, 2020, 2021, 2022, 2023, 2024, 2025. Summer training course *New Advances in Land Carbon Cycle.*

2012-2015, National Institute for Mathematical and Biological Syntehsis (NIMBioS) working group on Terrestrial carbon cycle and nonautonamous systems

2011-2012. National Climate Assessment, Biodiversity/Ecosystems/Ecosystem Services Chapter, Technical Input.

2009-2014, Contributing author, Intergovernment Panel of Climate Change (IPCC) 5th Assessment Report.

2002-04. Working group member, IBRCS (Infrastructure for Biology at Regional to Continental Scales) – a version of NEON (National Ecological Observation Network), American Institute of Biological Sciences.

2001. Invited participant for the strategic planning meeting on the National Phytotron at Duke University, Durham, NC. (Oct. 25-27)

2001. Member, the US science delegation to participate the 9th US-Japan workshop on global change, Toyko, Japan (Oct. 8-10)

2001. Invited participant, workshop on nonlinear responses to global environmental change: critical thresholds and feedbacks. Durham, NC May 26-29.

2000-2003. Leader of an international working group on carbon and nitrogen interactions under elevated CO2. sponsored by NCEAS.

2000-01. Chair, Asian Ecology Section, Ecological Society of America

1999. Invited participant, An IGBP (International Geosphere-Biosphere Programme)-GCTE (Global Change and Terrestrial Ecosystems) Workshop “"Intercomparison of Gap Models and Examination of How Much Physiology is Needed in Them" Pingree Park (Colorado). (July)

1999. Judge for the Billings Award and the Graduate Student Poster Award, Ecological Society of America.

1998-99. Science Core Team member for the Lake Tahoe Basin Watershed Assessment, US Forest Service

Institutional Services (Cornell University)

2025. Empire AI Committee

Institutional Services (Northern Arizona University)

2019-2022. Award committee, Center for Ecosystem Science and Society

2019-2020. Strategical Planning committee, College of the Environment, Forestry, and Natural Sciences (CEFNS)

2019-2020. Faculty Senate

2019. Faculty Search Committee for Assistant Professor of Practice for professional writing, Department of Biological Sciences.

Institutional Services (University of Oklahoma)

2016-17. Search Committee, Microbial Ecology, Department of Microbiology and Plant Biology

2014-17 Retention and promotion committee, Department of Microbiology and Plant Biology

2011-2012. Search Committee for Regional Climate science position, Department of Meteorology.

2010-2011. Search Committee for a plant ecology position, Department of Botany and Microbiology.

2010-15. Graduate Admission Committee, Department of Botany and Microbiology 2009. Search Committee for mathematics professor

2008. A planning committee on development a new degree program in Geospatial Information and Sustainability Science (GISS), College of Atmospheric and Geographic Sciences
2008. Graduate student recruitment committee, Department of Botany and Microbiology 2007-
2009. Graduate Admission Committee, Department of Botany and Microbiology 2007-08, Search Committee for Data assimilation and radar mechanics in meteorology. 2006-07. Search committee for Remote Sensing and GIS, Department of Geography
2006-07. Search committee for Microbial Ecology, Department of Botany and Microbiology.
2006-2009. Committee member on University Research Council, the University of Oklahoma.
2004-05. Executive committee for Ecology, Evolutionary Biololgy gradaute program
2004-05. Search Committee for Environmental Microbiologist, Dept. of Botany and Microbiology.
2003-04. Search Committee for Chinese Politics Professorship, International Study Program
2003. Search Committee for Ecologist/Statistician, Department of Zoology, Univ. of Oklahoma
2003. Committee member on University Research Council, the University of Oklahoma. 2001-
04. Leading a task force to establish a graduate program in Ecology and Evolutionary Biology.
2001-pres. Promotion committee. Department of Botany and Microbiology, Univ. of Oklahoma. 2001-2003. Committee for the Support of Teaching and Research, College of Arts and Sciences,
University of Oklahoma
2001-05. Adviser for Chinese Student and Scholar Association at the University of Oklahoma.
2001-02. Search committee for a faculty position: Geomicrobiology. Department of Botany and Microbiology, University of Oklahoma.
2001. *Ad hoc* Committee for evaluating the New Program "Master of Science in Natural Gas Engineering & Management". Graduate College, University of Oklahoma.
2000. Planning committee of Global Environmental Studies, International Programs Centers, University of Oklahoma.
1999-pres. Greenhouse committee, Department of Botany and Microbiology, Univ. of Oklahoma. (2001-, Committee Chair)
1999-pres. Committee for the George Lynn Cross Lecturer, University of Oklahoma. 1999-
2001. Budget Committee, Department of Botany and Microbiology, University of Oklahoma.
1999-pres. Undergraduate Advising Committee, College of Art and Science, University of Oklahoma

Institutional Services (Desert Research Institute, University of Nevada Reno) 1998 Search Committee for the position of root physiologist at UNR.
1998 Search Committee for the position of professional writer at DRI. 1998 Search Committee for the position of Ecologist at DRI.
1997 Curriculum Committee of the EECB graduate program
1997 Search Committee for the position of Ecosystem Ecologist at DRI. 1997-98. Nevada Metal Fellowship Selection Panel at DRI
1996-97 Search Committee for the position of Executive Director of Biological Sciences Center at DRI.
1996 Chair, Search Committee for the position of Assistant Research Professor at DRI. 1995-96 Project PI representing DRI in the Mojave Desert FACE study.
1995- Student comprehensive examination committee for the graduate program of EECB.
1995-97. The Colin Warden Award committee for best student research papers at DRI.
1995-98. Hosting seminar speakers for the graduate program of EECB.