

# CURRICULUM VITAE

## NAME

Wei Gao

## ADDRESS

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## EDUCATION

- 1997 Ph.D., Applied Meteorology, Purdue University, West Lafayette, IN
- 1992 M.S., Micrometeorology and Modeling, Mississippi State University, Mississippi State, MS
- 1987 B.A., English, Anhui Normal University, Wuhu, China
- 1982 B.S., Applied Meteorology, Nanjing Institute of Meteorology, Nanjing, China

## ACADEMIC POSITIONS

- (2010-present) Professor, Department of Ecosystem Science and Sustainability, Colorado State University, Fort Collins, Colorado
- (2007-present) Director, Senior Research Scientist, USDA UV-B Monitoring and Research Program, Natural Resource Ecology Laboratory, Colorado State University, Fort Collins, Colorado
- (2007-present) Joint Professor, Department of Soil and Crop Sciences, and Graduate Degree Program in Ecology, Colorado State University, Fort Collins, Colorado
- (2003-2007) Joint Assistant Professor, Department of Soil and Crop Sciences, and Graduate Degree Program in Ecology, Colorado State University, Fort Collins, Colorado
- (2002-2007) Research Scientist III/Group Leader, Remote Sensing, Modeling and Effects, USDA UV-B Monitoring and Research Program, Natural Resource Ecology Laboratory, Colorado State University, Fort Collins, Colorado
- (1999-2002) Research Scientist, USDA UV-B Monitoring and Research Program, Cooperative Institute for Research in the Atmosphere, Colorado State University, Fort Collins, Colorado
- (1997-1999) Postdoctoral Fellow, Environmental and Societal Impacts Group, National Center for Atmospheric Research, Boulder, Colorado
- (1993-1997) Research Assistant and graduate lecturer, Applied Meteorology Laboratory, Department of Agronomy, Purdue University, West Lafayette, Indiana
- (1991-1992) Research Assistant, USDA Crop Simulation Research Unit, Department of Plant and Soil Sciences, Mississippi State University, Mississippi State, Mississippi
- (1987-1990) Lecturer, Applied Meteorology Laboratory, Anhui Normal College of Agricultural Technology, China
- (1982-1985) Assistant Lecturer, Applied Meteorology Laboratory, Anhui Normal College of Agricultural Technology, China

## HONORS AND AWARDS

- 2024 WCNR Outstanding Research Impact Award, Colorado State University
- 2018 WCNR Outstanding Publication Award, Colorado State University
- 2021,2010,2009 NREL Most Publications Award, Natural Resource Ecology Laboratory, Colorado State University
- 2009 Lifetime Distinguished International Service Award, Colorado State University
- 2005 Fellow, SPIE-the International Society for Optics and Photonics
- 2002 Excellent Dedication and Service, SPIE- the International Society for Optics and Photonics

## **COMMITTEES**

2007-2024	CSU NREL Executive Committee
2020-present	USDA AFRI – DAWN Management IDS Committee
2020-present	USGS AmericaView - Earth Sensors and Research Committee
2010-2018	CSU Internationalization Plan Operations Committee
2008-2010	GDPE Review Committee

## **PROFESSIONAL AFFILIATIONS AND ACTIVITIES**

### **Memberships in professional societies:**

- SPIE- the International Society for Optics and Photonics
- American Society of Agronomy
- American Meteorological Society
- American Geophysical Union
- Ecological Society of America
- American Associate for Aerosol Research
- American Association for the Advancement of Science
- European Geosciences Union

### **Office in professional societies:**

- Chair, Remote Sensing and Modeling of Ecosystems for Sustainability, SPIE- the International Society for Optics and Photonics, 2023-Present
- Chair, Remote and In-situ Sensing Program, SPIE- the International Society for Optics and Photonics, 2003-2007
- Conference Chair, Ultraviolet Ground-and Space-based Measurement, Models, and Effects, 2001-2006
- Conference Chair, Remote Sensing and Modeling of Ecosystems for Sustainability, 2003-2018

### **Editorial boards:**

- Executive Associate Editor-in-Chief, Engineering, 2016-present
- Editor-in-Chief, Frontiers of Earth Science, 2012-present
- Editorial Board member, Journal of Meteorology and Disaster Reduction Research, 2009- present
- Member, The Board of Editors for SPIE, 2007- 2018
- Editorial Board member, Frontiers of Environmental Science & Engineering, 2008- 2018
- Editor-in-Chief, Journal of Applied Remote Sensing, 2007-2013

### **Grant Refereeing:**

- Referee technical proposals for NSF, USDA, NASA and Natural Environmental Research Council

### **Manuscript Refereeing:**

- Referee for scientific papers for *Journal of Geophysical Research*, *Applied Optics*, *Journal of Agronomy*, *Journal of Photochemistry and Photobiology*, *Journal of Agricultural and Forest Meteorology*, *Solar Energy*, *European Journal of Applied Remote Sensing*, *Journal of Remote Sensing*, *Frontiers of Earth Science*, *Journal of Environmental Engineering*, *Engineering*, *Computers and Electronics in Agriculture*, *Plants*, *International Journal of Biometeorology*

## **OTHER ACTIVITIES/ACCOMPLISHMENTS – SERVICE/OUTREACH**

- Director, ColoradoView, affiliate membership in the AmericaView/USGS, National Consortium for Remote

- Sensing Education, Research and Applications, 2008-present
- Associate Provost, Colorado State University, Fort Collins, 2012-2021
  - Assistant Provost, Colorado State University, Fort Collins, 2010-2012

## **CONTRACTS & GRANTS & PUBLICATIONS**

### **Funded Projects as PI**

- (2025) Global Change/Ultraviolet Radiation Monitoring and Research Program, PI, USDA – NIFA, \$924,960
- (2025) StateView Program Development and Operations for the State of Colorado, PI, USGS – AmericaView Member Services Program, \$25,500
- (2020-2026) Improving Agricultural Water Use and Nutrient Management to Sustain Food and Energy Crops Production in the Corn Belt, PI, USDA – NIFA – AFRI, \$500,000
- (2024-2027) NASA Goddard, UVAI and 380 nm Aerosol Absorption from PACE-OCI observations: Validation Plan, PI, NASA Goddard, \$90,688
- (2024) Global Change/Ultraviolet Radiation Monitoring and Research Program, PI, USDA – NIFA, \$924,960
- (2024) StateView Program Development and Operations for the State of Colorado, PI, USGS – AmericaView Member Services Program, \$25,500
- (2023) Global Change/Ultraviolet Radiation Monitoring and Research Program, PI, USDA – NIFA, \$1,294,944
- (2023) StateView Program Development and Operations for the State of Colorado, PI, USGS – AmericaView Member Services Program, \$25,500
- (2022) Global Change/Ultraviolet Radiation Monitoring and Research Program, PI, USDA – NIFA, \$1,300,992
- (2022) StateView Program Development and Operations for the State of Colorado, PI, USGS – AmericaView Member Services Program, \$23,500
- (2021) Global Change/Ultraviolet Radiation Monitoring and Research Program, PI, USDA – NIFA, \$1,305,638
- (2021) StateView Program Development and Operations for the State of Colorado, PI, USGS – AmericaView Member Services Program, \$23,500
- (2020) Global Change/Ultraviolet Radiation Monitoring and Research Program, PI, USDA – NIFA, \$1,305,638
- (2020) StateView Program Development and Operations for the State of Colorado, PI, USGS – AmericaView Member Services Program, \$23,500
- (2019) Global Change/Ultraviolet Radiation Monitoring and Research Program, PI, USDA – NIFA, \$1,305,638
- (2019) StateView Program Development and Operations for the State of Colorado, PI, USGS – AmericaView Member Services Program, \$23,500
- (2018) Global Change/Ultraviolet Radiation Monitoring and Research Program, PI, USDA – NIFA, \$1,305,638
- (2018) StateView Program Development and Operations for the State of Colorado, PI, USGS – AmericaView Member Services Program, \$23,500

- (2014-2018) Urban Tree Interception of UV (A/V) Radiation and Its Genetic Consequences, PI, USDA – NIFA, Southern University/Ag Research & Extension Center \$95,000
- (2017) Global Change/Ultraviolet Radiation Monitoring and Research Program, PI, USDA – NIFA, \$1,305,638
- (2016) Global Change/Ultraviolet Radiation Monitoring and Research Program, PI, USDA – NIFA, \$1,305,147
- (2016) StateView Program Development and Operations for the State of Colorado, PI, USGS – AmericaView Member Services Program, \$23,500
- (2015) Global Change/Ultraviolet Radiation Monitoring and Research Program, PI, USDA – NIFA, \$1,309,684
- (2015) StateView Program Development and Operations for the State of Colorado, PI, USGS – AmericaView Member Services Program, \$23,500
- (2014) Global Change/Ultraviolet Radiation Monitoring and Research Program, PI, USDA – NIFA, \$1,311,034
- (2014) StateView Program Development and Operations for the State of Colorado, PI, USGS – AmericaView Member Services Program, \$24,900
- (2013) Global Change/Ultraviolet Radiation Monitoring and Research Program, PI, USDA – NIFA, \$1,206,270
- (2013) StateView Program Development and Operations for the State of Colorado, PI, USGS – AmericaView Member Services Program, \$23,500
- (2012) Global Change/Ultraviolet Radiation Monitoring and Research Program, PI, USDA – NIFA, \$1,208,045
- (2012) StateView Program Development and Operations for the State of Colorado, PI, USGS – AmericaView Member Services Program, \$23,500
- (2011) Global Change/USDA Ultraviolet Radiation Monitoring and Research Program, PI, USDA – NIFA, \$1,307,746
- (2011) StateView Program Development and Operations for the State of Colorado, PI, USGS – AmericaView Member Services Program, \$23,800
- (2010) Global Change/USDA Ultraviolet Radiation Monitoring and Research Program, PI, USDA – NIFA, \$1,310,381
- (2010) StateView Program Development and Operations for the State of Colorado, PI, USGS – AmericaView Member Services Program, \$25,000
- (2009) Global Change/Ultraviolet Radiation CO, PI, USDA CSREES, \$1,312,660
- (2009) StateView Program Development and Operations for the State of Colorado, PI, USGS – AmericaView Member Services Program, \$23,152
- (2008) USDA UV-B Monitoring and Research Program: Enhancement of Network Data Products, Research Support and National Research Collaboration, PI, USDA CSREES, \$1,413,474
- (2008-2013) Integrated Bioclimatic-Dynamic Modeling of Climate Change Impacts on Agricultural and Invasive Plant Distributions in the United States, PI, USDA/CSREES/NRI, \$530,000
- (2007) Development and Management of a USDA UV-B Monitoring Program, PI, USDA Global Change Program, USDA CSREES W-502-Hatch/Multistate/McIntire Stennis, \$1,320,231
- (2006) Development of a Fine-Resolution Land Surface Emissivity Parameterization, PI, NAVY – University of Wisconsin, \$50,000

- (2006) Molecular Aspects of Plant Secondary Metabolism in Response to UV-B Radiation, PI, USDA CSREES, \$5,000
- (2005) International Conference on Resources, Ecosystems, and Sustainability of Arid and Semi-arid Regions, PI, UNESCO Participation Programme, \$15,000

#### **Funded Projects as Co-PI**

- (2006) USDA UV-B Monitoring and Research Program, Co-PI, USDA CSREES, \$2,018,497
- (2005) Development and Management of a USDA UV-B Monitoring Program, Co-PI, USDA CSREES, \$1,851,975
- (2004) Development and Management of USDA UV-B Monitoring Program, Co-PI, USDA Global Change Program, \$1,868,408
- (2003) Development and Management of USDA UV-B Monitoring Program, Co-PI, USDA Global Change Program, \$2,089,617
- (2002) Development and Management of USDA UV-B Monitoring Program, CoPI, USDA Global Change Program, \$1,423,000
- (2001) Development and Management of USDA UV-B Monitoring Program, CoPI, USDA Global Change Program, \$1,423,000

#### **Published Refereed Articles**

- Arteaga, J., M.D. Hartman, W.J. Parton, M. Chen, W. Gao. 2025. Informing grassland ecosystem modeling with in-situ and remote sensing observations. *Environmental Research Letters*, 20, 034004. doi: 10.1088/1748-9326/adb04f
- Kaur, N., N. Thenveetil, A. Sehgal, R. Bheemanahalli, K.N. Reddy, W. Gao, K.R. Reddy. 2025. Effect of elevated carbon dioxide on the growth, development, and nutrient composition of C3 and C4 functional groups. *Front. Earth Sci.* 1-14. Doi 10.1007/s11707-025-1178-6
- Kharel, T. P., K. R. Reddy, A. Sehgal, N. Kodadinne, R. Bheemanahalli, A. B. Bhandari, K. N. Reddy, & W. Gao. 2025. Impact of climate change stressors—temperature, CO<sub>2</sub>, and UV-B—on early growth and development of different cover crop species. *Agrosystems, Geosciences & Environment*, 8, e70037. doi: 10.1002/agg2.70037
- Sun, Z., R. Liu, K. Laidlaw, M. Chen, and W. Gao. 2025. Analysis of ET and NDVI Correlation in Different Land Cover Types of Colorado, *Journal of Earth Observations and Geospatial Applications*, 1(1), 1-20.
- Thenveetil, N., R. Bheemanahalli, T.P. Kharel, K.N. Reddy, W. Gao, K.R. Reddy. 2025. Drought and high nighttime temperature impact on soybean seed yield and quality under ambient and elevated CO<sub>2</sub> environments. *Sci Rep* 15, 36679. doi: 10.1038/s41598-025-20392-0
- Thenveetil, N., M.KR. Allam, S.S. Anapalli, K.N. Reddy, W. Gao, and K.R. Reddy. 2025. Impacts of varying day and night environmental conditions on cotton flowering, yield, and fiber quality. *Frontiers of Plant Science*, 16:1616982. doi:10.3389/fpls.2025.1616982
- Vennam, R.R., D.P.M. Chinthalapudi, A. Shrestha, R. Bheemanahalli, R. Seepaul, W. Gao, K. R. Reddy. 2025. Exploring the effects of drought and salt stress on physiology, leaf reflectance, and growth dynamics of *Brassica carinata*, *Industrial Crops and Products*, Volume 235, 121648, ISSN 0926-6690
- Liang, Xin-Zhong; D. Gower, J. A. Kennedy, M. Kenney, M. C. Maddox, M. Gerst, G. Balboa, T. Becker, X. Cai, R. Elmore, W. Gao, Y. He, K. Liang, S. Lotton, L. Malayil, M. L. Matthews, A. M. Meadow, C. Neale, G. Newman, A. R. Sapkota, S. Shin, J. Straube, C. Sun, Y. Wu, Y. Yang, and X. Zhang. 2024. DAWN: Dashboard for Agricultural Water use and Nutrient management - A predictive decision support system to improve crop production in a changing climate. *Bulletin of the American Meteorological Society*, 105, E432-441. doi: 10.1175/BAMS-D-22-0221.1.

- Mathur, S., R. Bheemanahalli, S.H. Jumaa, N. Kakar, V. R. Reddy, W. Gao and K. R. Reddy. 2024. Impact of ultraviolet-B radiation on early-season morpho-physiological traits of indica and japonica rice genotypes. *Front. Plant Sci.* 15:1369397. doi: 10.3389/fpls.2024.1369397
- Thenveetil, N., R. Bheemanahalli, K. N. Reddy, W. Gao and K. R. Reddy. 2024. Temperature and elevated CO<sub>2</sub> alter soybean seed yield and quality, exhibiting transgenerational effects on seedling emergence and vigor. *Front. Plant Sci.* 15:1427086. doi: 10.3389/fpls.2024.1427086
- Lerma, J., E.K. Blackaby, M. Chen, S. Madronich, and W. Gao. 2023. Predicting Cloud Fraction with Instantaneous Direct and Diffuse Shortwave Solar Irradiance. *The Geographical Bulletin*, Vol. 64: Iss. 2, Article 1, 121-130, ISSN 2163-5900.
- Wu, You, S. Meng, C. Liu, W. Gao, X.-Z. Liang. 2023. A bibliometric analysis of research for climate impact on agriculture. *Frontiers in Sustainable Food Systems*. 7. doi: 10.3389/fsufs.2023.1191305
- Barickman, T. C., S. R. Brazel, A. Sehgal, C. H. Walne, W. Gao, and K. R. Reddy. 2022. Daily UV-B treatments and elevated CO<sub>2</sub> increase pigment concentrations and net photosynthesis of basil (*Ocimum basilicum* L.). *Technology in Horticulture*. 2:2. doi: 10.48130/TIH-2022-0002
- Taduri, S., R. Bheemanahalli, C. Wijewardana, A.A. Lone, S.L. Meyers, M. Shankle, W. Gao, K. R. Reddy. 2022. Sweetpotato cultivars responses to interactive effects of warming, drought, and elevated carbon dioxide. *Front. Genet.* 13:1080125. doi: 10.3389/fgene.2022.1080125
- Sehgal, A., K.R. Reddy, C.H. Walne, T.C. Barickman, S. Brazel, Chastain, W. Gao. 2022. Individual and interactive effects of multiple abiotic stress treatments on early-season growth and development of two Brassica species. *Agriculture*, 12(4), 453. doi: 10.3390/agriculture12040453
- Sehgal, A., K.R. Reddy, C.H. Walne, T.C. Barickman, S.R. Brazel, D. Chastain, W. Gao. 2022. Climate stressors on growth, yield, and functional biochemistry of two Brassica species, Kale and Mustard. *Life*, 12, 1546. doi: 10.3390/life12101546
- Barickman, T. C., B. Adhikari, A. Sehgal, C. H. Walne, K. R. Reddy, and W. Gao. 2021. Drought and elevated CO<sub>2</sub> impacts photosynthesis and biochemicals of basil (*Ocimum basilicum* L.). *Stresses*, 1(4), 223-237. doi: 10.3390/stresses1040016
- Barickman, T.C., S. Brazel, A. Sehgal, C.H. Walne, K.R. Reddy, and W. Gao. 2021. Individual and interactive temporal implications of UV-B radiation and elevated CO<sub>2</sub> on the morphology of basil (*Ocimum basilicum* L.). *Horticulturae*, 7(11), 474. doi: 10.3390/horticulturae7110474
- Barickman, T. C., B. Adhikari, A. Sehgal, C. H. Walne, K. R. Reddy, and W. Gao. 2021. Drought and elevated carbon-dioxide impact the morphological profile of basil (*Ocimum basilicum* L.). *Crops*, 1(3), 118-128. doi: 10.3390/crops1030012
- Barickman, T. C., O. J. Olorunwa, A. Sehgal, C. H. Walne, K. R. Reddy, W. Gao. 2021. Interactive Impacts of Temperature and Elevated CO<sub>2</sub> on Basil (*Ocimum basilicum* L.) Root and Shoot Morphology and Growth. *Horticulturae*, 7(5), 112. doi: 10.3390/horticulturae7050112
- Barickman, T. C., O. J. Olorunwa, A. Sehgal, C. H. Walne, K. R. Reddy, W. Gao. 2021. Yield, Physiological Performance, and Phytochemistry of Basil (*Ocimum basilicum* L.) under Temperature Stress and Elevated CO<sub>2</sub> Concentrations. *Plants*, 10 (6), 1072. doi: 10.3390/plants10061072
- Lwe, Z. Z., S. Sah, L. Persaud, J. Li, W. Gao, K. R. Reddy, S. Narayanan. 2021. Alterations in the leaf lipidome of *Brassica carinata* under high-temperature stress. *BMC Plant Biology*, 21, 404, doi: 10.1186/s12870-021-03189-x
- Reddy, K. R., A. Sehgal, S. Jumaa, R. Bheemanahalli, N. Kakar, Ed. Redoña, C. Wijewardana, F. A. Alsajri, D. Chastain, W. Gao, S. Taduri, A. A. Lone. 2021. Morpho-physiological characterization of diverse rice genotypes for seedling stage high- and low-temperature tolerance. *Agronomy*. 11, (1), 112. doi: 10.3390/agronomy11010112

- Sun, Z., N. B. Chang, C. F. Chen, C. Mostafiz, and W. Gao. 2021. Ensemble Learning via Higher Order Singular Value Decomposition for Integrating Data and Classifier Fusion in Water Quality Monitoring. *IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing*, 14, 3345-3360. doi: 10.1109/JSTARS.2021.3055798
- Tao, Z., R. Shi, J-P. Gastellu-Etchegorry, J. Shi, N. Wu, B. Tian, and W. Gao. 2021. Effects of Plant and Scene Modeling on Canopy NDVI Simulation: A Case Study on *Phragmites Australis* and *Spartina Alterniflora*. *IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing*, 14, 6451-6466. doi: 10.1109/JSTARS.2021.3088580
- Wu, N., R. Shi, W. Zhuo, C. Zhang, B. Zhou, Z. Xia, Z. Tao, W. Gao, B. Tian. 2021. A Classification of Tidal Flat Wetland Vegetation Combining Phenological Features with Google Earth Engine. *Remote Sensing*, 13 (3), 443, doi: 10.3390/rs13030443
- Alsajri, F. A., C. Wijewardana, J. T. Irby, N. Bellaloui, L. J. Krutz, B. Golden, W. Gao, K. R. Reddy. 2020. Developing functional relationships between temperature and soybean yield and seed quality. *Agronomy Journal*, 112:194–204, doi: 10.1002/agj2.20034
- Alsajri, F. A., C. Wijewardana, R. Rosselot, B. Singh, L.J. Krutz, W. Gao, K. R. Reddy. 2020. Temperature Effects on Soybean Seedling Shoot and Root Growth and Developmental Dynamics. *Journal of the Mississippi Academy of Sciences*, 65: 247-257.
- Chen, M., Z. Sun, B. H. Newell, C. A. Corr, W. Gao. 2020. Missing Pixel Reconstruction on Landsat 8 Analysis Ready Data Land Surface Temperature Image Patches Using Source-Augmented Partial Convolution. *Remote Sens.* 12, 3143. doi: 10.3390/rs12193143
- Chen, Z., W. Gao, K. R. Reddy, M. Chen, S. Taduri, S. L. Meyers, M. W. Shankle. 2020. Ultraviolet (UV) B effects on growth and yield of three contrasting sweet potato cultivars. *Photosynthetica*, 58(1), 37-44. doi: 10.32615/ps.2019.137
- Jumma, S.H., N. Kakar, E. D. Redoña, A. A. Lone, D. Chastain, W. Gao, M. L. Warburton, and K. R. Reddy. 2020. Assessing the Early-Season Vigor of a Diverse Rice Population by Using Morphophysiological Traits. *Sabrao Journal of Breeding and Genetics*, 52 (3) 248-270.
- Chen, M., Z. Sun, J. M. Davis, Y.-A. Liu, C. A. Corr, and W. Gao. 2019. Improving the mean and uncertainty of ultraviolet multi-filter rotating shadowband radiometer in situ calibration factors: utilizing Gaussian process regression with a new method to estimate dynamic input uncertainty. *Atmospheric Measurement Techniques*, 12, 935-953. doi: 10.5194/amt-12-935-2019
- Singh, B., D. R. Chastain, S. Jumaa, C. Wijewardana, E. D. Redona, W. Gao, K. R. Reddy. 2019. Projected day/night temperatures specifically limits rubisco activity and electron transport in diverse rice cultivars. *Environmental and Experimental Botany*, 159, 191-199
- Jumaa, S.H., E. D. Redona, T. Walker, W. Gao, And K. R. Reddy. 2019. Developing screening tools for early-season high- and low-temperature stress. *Sabrao Journal of Breeding and Genetics*, 51:12-36
- Wijewardana, C., F. A. Alsajri, J. T. Irby, L. J. Krutz, B. Golden, W. B. Henry, W. Gao, and K. R. Reddy. 2019. Physiological assessment of water deficit in soybean using midday leaf water potential and spectral features. *Journal of Plant Interactions*, 14:1, 533-543, DOI: 10.1080/17429145.2019.1662499
- Wijewardana, C., K.R. Reddy, L.J. Krutz, W. Gao, and N. Bellaloui. 2019. Drought stress has transgenerational effects on soybean seed germination and seedling vigor. *PLoS ONE*, 14(9): e0214977. <https://doi.org/10.1371/journal.pone.021497700> (IF: 2.776)
- Chen, Z., W. Gao, K. R. Reddy, M. Chen, S. Taduri, S. L. Meyers, M. W. Shankle. 2019. Ultraviolet (UV) B effects on growth and yield of three contrasting sweet potato cultivars. *Photosynthetica*, 58(1), 37-44. doi: 10.32615/ps.2019.137

- Chen, M., W. J. Parton, M. D. Hartman, S. J. Del Grosso, W. K. Smith, A. K. Knapp, S. Lutz, J. D. Derner, C. J. Tucker, D. S. Ojima, J. D. Volesky, M. B. Stephenson, W. H. Schacht, W. Gao. 2019. Assessing precipitation, evapotranspiration, and NDVI as controls of US Great Plains plant production. *Ecosphere*, 10(10), e02889
- Alsajri, F., B. Singh, C. Wijewardana, J. Irby, W. Gao, K. R. Reddy. 2019. Evaluating Soybean Cultivars for Low- and High-Temperature Tolerance During the Seedling Growth Stage. *Agronomy*, 9(13), 1-20. doi:10.3390/agronomy9010013
- Asao, S., W. J. Parton, M. Chen, and W. Gao. 2018. Photodegradation accelerates ecosystem N cycling in a simulated California grassland. *Ecosphere* 9(8):e02370. 10.1002/ecs2.2370
- Wijewardana, C., K.R. Reddy, M.W. Shankle, S. Meyers, and W. Gao. 2018. Low and high-temperature effects on sweetpotato storage root initiation and early transplant establishment. *Scientia Horticulturae*, 240:38-48. doi: 10.1016/j.scienta.2018.05.052.
- Ai, J., W. Gao, Z. Gao, R. Shi, and C. Zhang. 2017. Phenology-based *Spartina alterniflora* mapping in coastal wetland of the Yangtze Estuary using time series of GaoFen satellite no.1 wide field of view imagery. *Journal of Applied Remote Sensing*, 11(2), 026020. doi: 10.1117/1.JRS.11.026020
- Chen M., W. J. Parton, S. Del Grosso, M. D. Hartman, K. Day, C. J. Tucker, J. Derner, A. Knapp, W. C. Smith, D. Ojima, and W. Gao. 2017. The Signature of Sea Surface Temperature Anomalies on the Dynamics of Semi-arid Grassland Productivity. *Ecosphere*. 8, e02069. doi: 10.1002/ecs2.2069
- Hallar, A. G., N. P. Molotch, J. L. Hand, B. Livney, I. B. McCubbin, R. Petersen, J. Michalsky, D. Lowenthal, and K. E. Kunkel. 2017. Impacts of increasing aridity and wildfires on aerosol loading in the intermountain Western US. *Environmental Research Letters*, Volume 12, Number 1
- Liang, X., Y. Wu, R. G. Chambers, D. L. Schmoldt, W. Gao, C. Liu, Y. Liu, C. Sun, and J. A. Kennedy. 2017. Determining climate effects on US total agricultural productivity. *Proceedings for the National Academy of Sciences of the United States of America (PNAS)*, vol. 114 no. 12, E2285–E2292, doi: 10.1073/pnas.1615922114
- Liu, P., R. Shi, and W. Gao. 2017. Estimating leaf chlorophyll contents by combining multiple spectral indices with an artificial neural network. *Earth Science Informatics*, 11, 147-156. doi: 10.1007/s12145-017-0319-1
- Liu, P., R. Shi, C. Zhang, Y. Zeng, J. Wang, Z. Tao, and W. Gao. 2017. Integrating multiple vegetation indices via an artificial neural network model for estimating the leaf chlorophyll content of *Spartina alterniflora* under interspecies competition. *Environmental Monitoring and Assessment*, 189:596. doi: 10.1007/s10661-017-6323-6
- Reddy, K. R., D. Brand, C. Wijewardana, and W. Gao. 2017. Temperature Effects on Cotton Seedling Emergence, Growth, and Development. *Agronomy Journal*, 109(4), 1379-1387, doi:10.2134/agronj2016.07.0439
- Sun, Z., J. Davis, and W. Gao. 2017. Estimating Error Covariance and Correlation Region in UV Irradiance Data Fusion by Combining TOMS-OMI and UVMRP Ground Observations. *IEEE Transactions on Geoscience and Remote Sensing*, vol. 56, no. 1, doi: 10.1109/TGRS.2017.2748031
- Chang, N.B., C. Mostafiz, Z. Sun, W. Gao, and C. Chen. 2017. Developing a prototype satellite-based cyber-physical system for smart wastewater treatment. 2017 IEEE 14th International Conference on Networking, Sensing and Control (ICNSC), 339-344. doi: 10.1109/ICNSC.2017.8000115
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