

October 19<sup>th</sup>, 2020

## ZHE ZHU

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### RESEARCH INTERESTS

Remote Sensing, Particularly of Urban, Forests, and Clouds  
Land Cover and Land Cover Change  
Time Series Analysis  
Digital Image Processing  
Climate Change

### EDUCATION

2013 Ph.D. in Geography, Boston University, Boston, MA, USA  
2006 B.E. in Remote Sensing and Photogrammetry, Wuhan University, Wuhan, Hubei, China

### APPOINTMENTS

2019- Assistant Professor, Department of Natural Resources and the Environment, University of Connecticut  
2016-2018 Assistant Professor, Department of Geosciences, Texas Tech University  
2014-2016 Land Change Scientist, Contractor to USGS Earth Resources Observation and Science (EROS) Center  
2013-2014 Post-doctoral Associate, Department of Earth and Environment, Boston University  
2008-2012 Research Assistant, Department of Geography, Boston University

### PUBLICATIONS (\* indicates corresponding authors)

- Tarrio\*, K., Tang, X., Masek, J.G., Claverie, M., Ju, J., Qiu, S., **Zhu, Z.** and Woodcock, C.E., Comparison of Cloud Detection Algorithms for Sentinel-2 Imagery. *Science of Remote Sensing*, 100010, **2020**.
- Qiu, S\*, **Z. Zhu**, and C.E. Woodcock, Cirrus clouds that adversely affect Landsat 8 images: What are they and how to detect them?, *Remote Sensing of Environment*, 246, 111884, **2020**.
- Zhu, Z\***, J. Zhang, Z. Yang, A.H. Aljaddani, W.B. Cohen, S. Qiu, C. Zhou, Corrigendum to continuous monitoring of land disturbance based on Landsat time series, *Remote Sensing of Environment*, 238, 111824, **2020**
- Cohen, W.B.\* , S.P. Healey, Z. Yang, **Z. Zhu**, N. Gorelick, Diversity of Algorithm and Spectral Band Inputs Improves Landsat Monitoring of Forest Disturbance, *Remote Sensing*, 12 (10), 1673, **2020**
- Yang, X.\* , Q. Qin, H. Yésou, T. Ledauphin, M. Koehl, P. Grussenmeyer, **Z. Zhu**, Monthly estimation of the surface water extent in France at a 10-m resolution using Sentinel-2 data, *Remote Sensing of Environment*, 244, 111803, **2020**
- Lin, Y. \*, **Z. Zhu\***, W. Guo, Y. Sun, X. Yang, V. Kovalsky, Continuous monitoring of cotton stem water potential using Sentinel-2 imagery, *Remote Sensing*, 12 (7), 1176, **2020**
- Berhane, T.M., C.R. Lane\*, S. Mengistu, J. Christensen, H.E. Golden, S. Qiu, **Z. Zhu** and Q. Wu, Land-Cover Changes to Surface-Water Buffers in the Midwestern USA: 25 Years of Landsat Data Analyses (1993-2017), *Remote Sensing*, 12(5), 754, **2020**.

- Brown, J.F. \*, H.J. Tollerud, C.P. Barber, Q. Zhou, J. Dwyer, J.E. Vogelmann, T. Loveland, C.E. Woodcock, S.V. Stehman, **Z. Zhu**, B. Pengra, K. Smith, J. Horton, G. Xian, R. Auch, T. Sohl, K. Saylor, A. Gallant, D. Zelenak, R. Reker, J. Rover. Lessons learned implementing an operational continuous United States national land change monitoring capability: The Land Change Monitoring, Assessment, and Project (LCMAP) approach, *Remote Sensing of Environment*, 238, 111356, **2020**
- Zhu, Z\***, J. Zhang, Z. Yang, A.H. Aljaddani, W.B. Cohen, S. Qiu, C. Zhou, Continuous monitoring of land disturbance based on Landsat time series, *Remote Sensing of Environment*, 238, 111116, **2020**
- Deng, C. \* & **Z. Zhu**, Continuous subpixel monitoring of urban impervious surface using Landsat time series, *Remote Sensing of Environment*, 238, 110929, **2020**
- Jin, S. \*, C. Homer, L. Yang, P. Danielson, J. Dewitz, C. Li, **Z. Zhu**, G. Xian, Overall Methodology Design for the United States National Land Cover Database 2016 Products, *Remote Sensing*, 11 (24), 2971, **2019**
- Shang, Rong\*, **Z. Zhu**, Harmonizing Landsat 8 and Sentinel-2: A time-series-based reflectance adjustment approach, *Remote Sensing of Environment*, 235, 111439, **2019**
- Zhu, Z\***, Science of Landsat Analysis Ready Data, *Remote Sensing*, 11 (18), 2166, **2019**
- Liu, C., X. Huang\*, **Z. Zhu**, H. Chen, X. Tang, J. Gong, Automatic extraction of built-up area from ZY3 multi-view satellite imagery: Analysis of 45 global cities, *Remote Sensing of Environment*, 226, 51-73, **2019**
- Qiu, S., **Z. Zhu\***, and B. He\*, Fmask 4.0: Improved cloud and cloud shadow detection in Landsats 4-8 and Sentinel-2 imagery, *Remote Sensing of Environment*, 231, 111205, **2019**
- Zhu, Z\***, Y Zhou, KC Seto, EC Stokes, C Deng, STA Pickett, H Taubenböck, Understanding an urbanizing planet: Strategic directions for remote sensing, *Remote Sensing of Environment*, 228, 164-182, **2019**
- Zhu, Z\***, M.A. Wulder, D.P. Roy, C.E. Woodcock, M.C. Hansen, V.C. Radeloff, S.P. Healey, C. Schaaf, P. Hostert, P. Strobl, J. Pekel, L. Lymburner, N. Pahlevan, T.A. Scambos, Benefits of the free and open Landsat data policy, *Remote Sensing of Environment*, 224, 382-385, **2019**
- Wulder, M.A. \*, T.R. Loveland, D.P. Roy, C.J. Crawford, J.G. Masek, C.E. Woodcock, R.G. Allen, M.C. Anderson, A.S. Belward, W.B. Cohen, J. Dwyer, A. Erb, F. Gao, P. Griffiths, D. Helder, T. Hermosilla, J.D. Hipple, P. Hostert, M.J. Hughes, J. Huntington, D.M. Johnson, R. Kennedy, A. Kilic, Z. Li, L. Lymburner, J. McCorkel, N. Pahlevan, T.A. Scambos, C. Schaaf, J.R. Schott, Y. Sheng, J. Storey, E. Vermote, J. Vogelmann, J.C. White, R.H. Wynne, and **Z. Zhu**, Current status of Landsat program, science, and applications. *Remote Sensing of Environment*, 225, 127-147, **2019**
- Qiu, S., Y. Lin, R. Shang\*, J. Zhang, L. Ma, and **Z. Zhu\***, 2019. Making Landsat Time Series Consistent: Evaluating and Improving Landsat Analysis Ready Data. *Remote Sensing*, 11(1), p.51, **2019**
- Zhu, Z.\***, S. Qiu, B. He, C. Deng, Cloud and cloud shadow detection for Landsat images: the fundamental basis for analyzing Landsat time series, In Weng, Q. (Ed.): *Remote Sensing Time Series Image Processing* (1<sup>st</sup> ed., pp. 3-24), Boca Raton, FL: CRC Press/Taylor & Francis, **2018**
- Healey, S.P. \*, W.B. Cohen, Z. Yang, C.K. Brewer, E.B. Brooks, N. Gorelick, A. Hernandez, C. Huang, M.J. Hughes, R.E. Kennedy, T.R. Loveland, G.G. Moisen, T.A. Schroeder, S.V. Stehman, J.E. Vogelmann, C.E. Woodcock, L. Yang, & **Z. Zhu**, Mapping forest change using stacked generalization: an ensemble approach, *Remote Sensing of Environment*, 204, 717-728, **2018**
- Deng, C. \*, C. Li, & **Z. Zhu**, W. Lin, & L. Xi, Subpixel urban impervious surface mapping: The impact of input landsat images, *ISPRS Journal of Photogrammetry and Remote Sensing*, 133, 89-103, **2017**

- Qiu, S., B. He\*, **Z. Zhu\***, Z. Liao, & X. Quan, Improving Fmask cloud and cloud shadow detection in mountainous area for Landsat 4-8 images. *Remote Sensing of Environment*, 199, 107-119, **2017**
- Zhu, Z.\***, Change detection using Landsat time series: a review of frequencies, preprocessing, algorithms, and applications. *ISPRS Journal of Photogrammetry and Remote Sensing*, 130, 370-384, **2017**
- Jin, S.\*, L. Yang, **Z. Zhu**, & C. Homer, A land cover change detection and classification protocol for updating Alaska NLCD 2001 to 2011, *Remote Sensing of Environment*, 195, 44-55, **2017**
- Foga, S.\*, P.L. Scaramuzza, S. Guo, **Z. Zhu**, R.D. Dille, T. Beckman, G.L. Schmidt, J.L. Dwyer, M.J. Hughes, B. Laue, Cloud detection algorithm comparison and validation for operational Landsat data products. *Remote Sensing of Environment*, 194, 379-390, **2017**
- Xin, X., B. Liu\*, K. Di, **Z. Zhu**, Z. Zhao, J. Liu, Z. Yue, G. Zhang, Monitoring urban expansion using time series of night-time light data: a case study in Wuhan, China, *International Journal of Remote Sensing*, 1-19, **2017**
- Cohen, W.B.\* , S.P. Healey, Z. Yang, S.V. Stehman, C.K. Brewer, E.B. Brooks, N. Gorelick, C. Huang, M.J. Hughes, R.E. Kennedy, T.R. Loveland, G.G. Moisen, T.A. Schroeder, J.E. Vogelmann, C.E. Woodcock, L. Yang, **Z. Zhu**, How similar are forest disturbance maps derived from different Landsat time series algorithms? *Forests*, 8, 98, **2017**
- Zhu, Z.\***, A.L. Gallant, C.E. Woodcock, B. Pengra, P. Olofsson, T.R. Loveland, S. Jin, D. Dahal, L. Yang, & R.F. Auch, Optimizing the strategy for operational land cover classification for the LCMAP initiative: the effect of training and auxiliary data, *ISPRS Journal of Photogrammetry and Remote Sensing*, 122, 206-221, **2016**
- Pengra, B.\* , A.L. Gallant, **Z. Zhu**, & D. Dahal, Evaluation of the Initial Thematic Output from a Continuous Change-Detection Algorithm for Use in Automated Operational Land-Change Mapping by the US Geological Survey, *Remote Sensing*, 8(10), 811, **2016**
- Schott, J.\* , A. Gerace, C.E. Woodcock, S. Wang, **Z. Zhu**, & R.H. Wynne, C.E. Blinn, The impact of improved signal to noise ratios on algorithm performance: Case studies for Landsat class instruments, *Remote Sensing of Environment*, 185, 37-45, **2016**
- Zhu, Z.\***, Y. Fu\*, C.E. Woodcock, J.E. Vogelmann, P. Olofsson, C. Holden, M. Wang, S. Dai, & Y. Yu, Including land cover change in analysis of greenness trends using all available Landsat 5, 7, and 8 images: A case study from Guangzhou, China (2000-2014), *Remote Sensing of Environment*, 185, 243-257, **2016**
- Vogelmann, J.E.\* , A.L. Gallant, S. Hua, & **Z. Zhu**, Perspectives on monitoring gradual change across the continuity of Landsat sensors using time-series data, *Remote Sensing of Environment*, 185, 258-270, **2016**
- Qin, Y., X. Xiao\*, J. Dong, Y. Zhou, **Z. Zhu**, G. Zhang, G. Du, C. Jin, W. Kou, J. Wang, & X. Li, Mapping paddy rice planting area in cold temperate climate region through analysis of time series Landsat 8 (OLI), Landsat 7 (ETM+) and MODIS imagery, *ISPRS Journal of Photogrammetry and Remote Sensing*, 105, 220-233, **2015**
- Zhu, Z.\***, C.E. Woodcock, C. Holden, & Z. Yang, Generating synthetic Landsat images based on all available Landsat data: predicting Landsat surface reflectance at any given time, *Remote Sensing of Environment*, 162, 67-83, **2015**
- Zhu, Z.\***, S. Wang, & C.E. Woodcock, Improvement and expansion of the Fmask algorithm: cloud, cloud shadow, and snow detection for Landsats 4-7, 8, and Sentinel 2 images, *Remote Sensing of Environment*, 159, 269-277, **2015**
- Zhu, Z.\*** & C.E. Woodcock, Automated cloud, cloud shadow, and snow detection based on multitemporal Landsat data: an algorithm designed specifically for monitoring land cover change, *Remote Sensing of Environment*, 152, 217-234, **2014**
- Kennedy, R.\* , S. Andréfouët, W. Cohen, C. Gómez, P. Griffiths, M. Hais, S. Healey, E. Helmer, P. Hostert, M. Lyons, G. Meigs, D. Pflugmacher, S. Phinn, S. Powell, P. Scarth, S. Sen, T. Schroeder, A. Schneider, R. Sonnenschein, J.E.

Vogelmann, M. Wulder, & **Z. Zhu**, Bringing an ecological view of change to Landsat-based remote sensing, *Frontiers in Ecology and Environment*, 12(6), 339-346, **2014**

Roy, D.P.\* , M.A. Wulder, T.R. Loveland, C.E. Woodcock, R.G. Allen, M.C. Anderson, D. Helder, J.R. Irons, D.M. Johnson, R. Kennedy, T.A. Scambos, C.B. Schaaf, J.R. Schott, Y. Sheng, E.F. Vermote, A.S. Belward, R. Bindschadler, W.B. Cohen, F. Gao, J.D. Hipple, P. Hostert, J. Huntington, C.O. Justice, A. Kilic, V. Kovalsky, P.Z. Lee, L. Lymburner, J.G. Masek, J. McCorkel, Y. Shuai, R. Trezza, J. Vogelmann, R.H. Wynne, & **Z. Zhu**, Landsat-8: science and product vision for terrestrial global change research, *Remote Sensing of Environment*, 145, 154-172, **2014**

**Zhu, Z.\*** & C.E. Woodcock, Continuous change detection and classification of land cover using all available Landsat data, *Remote Sensing of Environment*, 144, 152-171, **2014**

Xin, Q.\* , P. Olofsson, **Z. Zhu**, B. Tan, & C.E. Woodcock, Towards near real-time monitoring of forest disturbance by fusion of MODIS and Landsat data, *Remote Sensing of Environment*, 135, 234-247, **2013**

Melaas, E. K.\* , M.A. Friedl, & **Z. Zhu**, Detecting interannual variation in deciduous broadleaf forest phenology using Landsat TM/ETM+ data, *Remote Sensing of Environment*, 132, 176-185, **2013**

**Zhu, Z.\***, C.E. Woodcock, & P. Olofsson, Continuous monitoring of forest disturbance using all available Landsat imagery, *Remote Sensing of Environment*, 122, 75-91, **2012**

**Zhu, Z.\***, & C.E. Woodcock, Object-based cloud and cloud shadow detection in Landsat imagery, *Remote Sensing of Environment*, 118(15), 83-94, **2012**

**Zhu, Z.\***, C.E. Woodcock, J. Rogan, & J. Kellndorfer, Assessment of spectral, polarimetric, temporal, and spatial dimensions for urban and peri-urban land cover classification using Landsat and SAR data, *Remote Sensing of Environment*, 117(15), 72-82, **2012**

## **MEDIA COVERAGE**

[Landsat Science Team Members Support the Free and Open Landsat Data Policy](#), *NASA News*

[Feds mulling satellites data charges](#), *JOURNAL-COURIER*

[What are the Benefits of Landsat's Current Free and Open Policy?](#) *GIS Lounge*

[The US government might charge for satellite data again – here's why that would be a big mistake](#), *The Conversation*

[A Policy Proposal That Could Curb Remote Sensing Research](#), *UConn Today*

## **AWARDS**

2016	Outstanding Contribution in Reviewing Remote Sensing of Environment
2007-2008	Presidential University Graduate Fellowships, Boston University, Boston
2006	The Excellent Graduation Thesis, Wuhan University, Wuhan, China
2006	The First Prize in Hubei Province in the National Mathematical Modeling Competition, China
2006	The Third Prize in the National English Competition, China

## **RESEARCH FUNDING**

**Active Funding (Total – 20.5 Million; PI/Institutional PI - 2.4 Million)**

WATCH: Wide Area Terrestrial Change Hypercube, **Institutional PI**: Z. Zhu, Intelligence Advanced Research Projects Activity (IARPA), Total **\$14,166,466**, UConn **\$720,925**, 2020-2024.

Neal Real-time Assessment of Forest Risk to Infrastructure Using Satellite Time Series, **PI**: **Z. Zhu**, Eversource, **\$207,094**, 2020-2023.

October 19<sup>th</sup>, 2020

Estimation of Young Forest and Shrubland Habitat in Connecticut, PI: Chadwick Rittenhouse, **Co-I: Z. Zhu**, Department of Energy and Environmental Protection (DEEP), **\$181,367**, 2019-2021.

Improving land cover classification and land change detection for LCMAP, **PI: Z. Zhu**, USGS, **\$349,758**, 2019-2024.

Detection and Characterization of Coastal Tidal Wetland Change, **PI: Z. Zhu**, USGS, **\$198,160**, 2019-2022.

Mapping and Characterizing Human Activity Changes using NASA Black Marble Product Suite, **PI: Z. Zhu**, NASA, **\$116,338**, 2019-2021.

Toward Near Real-time Monitoring and Characterization of Land Surface Change for the Conterminous US, **PI: Z. Zhu**, USGS-NASA Landsat Science Team Program, **\$870,381**, 2019-2022

A Moderate Spatial Resolution Data Record of 21<sup>st</sup> Century Global Land Cover, Land Use, and Land Cover Change, PI: M. Friedl, **Collaborator: Z. Zhu**, NASA Making Earth System Data Records for Use in Research Environments, **\$4,039,454**, 2017-2022

NASA's Black Marber Standard Product Suite: Algorithm Refinement Effort, PI: M. Roman, **Collaborator: Z. Zhu**, NASA the Science of TERRA, AQUA, and SUOMINPP, **\$862,698**, 2017-2020

#### ***Past Funding (Total – 3.7 Million; PI/Institutional PI – 1.3 Million)***

Quantifying Cotton Water Stress Using Unmanned Aerials Systems and Satellite Remote Sensing, PI: W. Guo, **Co-I: Z. Zhu**, The Climate Corp, **\$130,000**, 2018-2019

Toward Near Real-time Monitoring and Characterization of Land Surface Change for the Conterminous US, **PI: Z. Zhu**, USGS-NASA Landsat Science Team Program, **\$1,062,069**, 2017-2022 (discontinued after leaving Texas Tech University in Dec. 2018)

Algorithm Improvement, Near Real-time Monitoring, and New Change Product Designed for the LCMAP Initiative, **PI: Z. Zhu**, USGS Great Plains Cooperative Ecosystem Studies Unit (CESU) Program, **\$283,045**, 2017-2021 (discontinued after leaving Texas Tech University in Dec. 2018)

A Historically Consistent and Broadly Applicable MRV System Based on Lidar Sampling and Landsat Time-series, PI: W. Cohen, **Consultant: Z. Zhu**, NASA Carbon Monitoring System, **\$2,180,302**, 2013-2016

#### **SOFTWARE DEVELOPED**

<https://github.com/GERSL>

#### **TEACHING**

##### ***Academic Courses***

Remote Sensing Image Processing, NRE 4535/5535: University of Connecticut, Spring 2020 (Instructor)

Remote Sensing of Environment, NRE 3535: University of Connecticut, Fall 2019 (Instructor)

Advanced Remote Sensing, GIST 5320: Texas Tech University, Fall 2018 (Instructor)

Remote Sensing of Environment, GIST 3301/5301: Texas Tech University, 2016-2017 (Instructor)

Geographic Information System, GIST 3300/5300: Texas Tech University, Fall 2017 (Co-Instructor)

Digital Image Processing, GE 440/640, Boston University, Spring 2012 (Teaching Assistant)

Digital Image Processing, GE 440/640, Boston University, Fall 2011 (Guest Lecturer)

##### ***Workshops***

Monitoring Land Use Change with RS in Support of Carbon Reporting, Silva Carbon Workshop, Aug 12-23 2013

Monitoring Land Use Change with RS in Support of Carbon Reporting, Silva Carbon Workshop, Aug 6-17 2012

Monitoring Land Use Change with RS, GOF-C-GOLD Workshop, May 14-25 2012

##### ***Certificate***

Exploring Online Learning, The University of Connecticut, April 5 2020

## PRESENTATIONS AND POSTERS

- Building a Clean, Consistent, and Dense Moderate Resolution Time Series for Monitoring Land Change, Landsat Science Team Webinar Series, Online, 05/27/2020 (talk)
- New Land Disturbance Products for the Conterminous US, AGU, San Francisco, CA, 12/09/2019-12/13/2020 (poster)
- Envisioning the future of global monitoring, Pecora 21, Baltimore, MD, 10/10/2019 (**keynote speaker**)
- A new system for near real-time monitoring and characterization of land disturbance, Pecora 21, Baltimore, MD, 10/09/2019 (talk)
- Better cloud and cloud shadow mask for Landsats 4-8 and Sentinel-2 imagery, Landsat Science Team Meeting, Sioux Falls, SD, 06/19/2019-06/21/2019 (talk)
- Better cloud and cloud shadow mask for Landsats 4-8 and Sentinel-2 imagery, Landsat Science Team Meeting, Sioux Falls, SD, 06/19/2019-06/21/2019 (talk)
- Mapping our planet in near real-time, *UConn Environmental Engineering Seminar Series*, Storrs, CT, 03/08/2019 (talk)
- Catching the “invisible ghost” in the optical imagery: What is cirrus and how to detect it?, *Center for Remote Sensing Monthly Seminar*, Boston, MA, 03/01/2019 (talk)
- Continuous Monitoring of Global Land Disturbance: Algorithms & Plans, *Google Global Land Cover Workshop*, Mountain View, CA, 02/21/2019-02/22/2019 (talk)
- Fmask 4.0: Improved cloud and cloud shadow detection for Landsats 4-8 and Sentinel-2 imagery, AGU, Washington DC, 12/09/2018-12/15/2018 (talk)
- Monitoring land disturbance based on Landsat time series, AGU, Washington DC, 12/09/2018-12/15/2018 (talk)
- Monitoring land disturbance based on Landsat time series, *ForestSAT*, College Park, MD, 10/01/2018-10/05/2018 (talk)
- Making Landsat time series consistent for monitoring land change, *Landsat Science Team Meeting*, Boulder, CO, 08/08/2018-08/10/2018 (talk)
- Monitoring Land Change in Near Real-time, Webinar for Geoscience and Remote Sensing Society (GRSS) Sponsored by the Washington DC / Northern Virginia Chapter of GRSS, 06/12/2018 (talk)
- Status and updates of the Continuous Change Detection and Classification (CCDC) algorithm, AAG, New Orleans, LA, 04/10/2018-04/14/2018 (talk)
- Toward near real-time monitoring and characterization of land surface change for the Conterminous US, *NASA LCLUC Spring Science Team Meeting*, Gaithersburg, MD, 03/03/2018-03/05/2018 (talk)
- Toward near real-time monitoring and characterization of land surface change for the Conterminous US, *Landsat Science Team Meeting*, Sioux Falls, SD, 02/20/2018-02/23/2018 (talk)
- Large-area annual land cover maps derived from Landsat analysis ready data, *Pecora20*, Sioux Falls, SD, 11/13/2017-11/16/2017 (talk)
- Optimizing selection of training and auxiliary data for operational land cover classification of the LCMAP initiative, AAG, Boston, MA, 04/05/2017 (talk)

October 19<sup>th</sup>, 2020

- Change agent classification based on all available Landsat data, *Landsat Science Team Meeting*, Boston University, Boston, MA, 01/11/2017 (talk)
- Land change monitoring, *Landsat Science Team Meeting*, Brookings, SD, 07/28/2016 (talk)
- Progress of the LCMAP initiative: From algorithms to products, *EROS Seminar*, USGS, Sioux Falls, SD, 07/20/2016 (talk)
- The use of all available Landsat data for land cover monitoring, *AAG*, San Francisco, CA, 03/29/2016 (talk)
- From CCDC to LCMAP: The “magic” of using all available Landsat data, *Wetland and Aquatic Research Center*, Lafayette, LA, 03/09/2016 (talk)
- The “magic” of using all available Landsat data: detecting land cover change from Guangzhou to global scale, *South China Normal University*, Guangzhou, China, 12/25/2015 (talk)
- CCDC and LCMAP: The use of all available Landsat data, *University of Electronic Science and Technology of China*, Chengdu, China, 12/15/2015 (talk)
- From CCDC to LCMAP: The “magic” of using all available Landsat data, *National Geomatics Center of China*, Beijing, China, 12/9/2015 – 12/10/2015 (talk)
- From CCDC to LCMAP: The “magic” of using all available Landsat data, *GSE Seminars*, South Dakota State University, Brookings, South Dakota, 10/09/2015 (talk)
- From CCDC to LCMAP: The “magic” of using all available Landsat data, *University of Electronic Science and Technology of China*, Chengdu, China, 07/22/2015-07/23/2015 (talk)
- From CCDC to LCMAP, *Landsat Science Team Meeting*, *EROS*, *USGS*, Sioux Falls, SD, 07/07/2015-07/09/2015 (talk)
- From CCDC to LCMAP: The “magic” of using all available Landsat data, *EROS Seminar*, *USGS*, Sioux Falls, SD, 06/09/2015 (talk)
- Monitoring land cover in near real-time: the era of big data, *Clark University*, Boston, MA, 04/09/2015 (talk)
- Landscape Change Monitoring System (LCMS) and Carbon Monitoring System (CMS) joint meeting, *LCMS & CMS*, Ogden, UT, 12/03/2014-12/04/2014 (discussion)
- Development of a land change monitoring system: CCDC modeling and plans for system integration and applications, *Land Carbon*, Reston, VA, 10/22/2014-10/23/2014 (talk)
- Ensemble integration of forest disturbance maps for the Landscape Change Monitoring System (LCMS), *AGU Fall Meeting*, San Francisco, CA, 12/03/2014-12/07/2014 (poster)
- Exploring metrics for assessing composite and synthetic Landsat images, *Landsat Science Team Meeting*, Corvallis, OR, USA, 22/07/2014-24/07/2014 (talk)
- Quantifying ecosystem carbon losses and gains following development in New England: A combined field, modeling, and remote sensing approach, *AGU Fall Meeting*, San Francisco, CA, 12/03/2013-12/07/2013 (poster)
- Monitoring land cover through big data: finding buried treasure in Landsat data, *LCLUC Spring Science Team Meeting*, Rockville, MD, 04/23/2014-04/25/2014 (poster)
- Continuous change detection and classification of land cover using all available Landsat data, *MultiTemp 2013*, Banff, Alberta, Canada, 06/25/2013-06/27/2013 (talk)

- Continuous change detection and classification of land cover using all available Landsat data, *Clark University*, Boston, MA, 04/26/2013 (talk)
- Continuous change detection and classification of land cover using all available Landsat data, *AGU Fall Meeting*, San Francisco, CA, 12/03/2012-12/07/2012 (talk)
- Monitoring interannual variation in deciduous broadleaf forest phenology using Landsat, *AGU Fall Meeting*, San Francisco, CA, 12/03/2012-12/07/2012 (poster)
- Continuous monitoring of forest disturbance using all available Landsat imagery, *GOCF-GOLD Meeting*, Boston, MA, USA, 01/09/2012-01/12/2012 (talk)
- LEDAPS atmospheric correction for thin cloud or heavy aerosols - a case study over New England, *Landsat Science Team Meeting*, Boston, MA, USA, 11/01/2010-11/03/2010 (talk)
- Comparison of cloud and cloud shadow algorithms, *Landsat Science Team Meeting*, Boston, MA, USA, 11/01/2010-11/03/2010 (talk)
- Cloud and cloud shadow detection in Landsat imagery - Fmask 1.6v algorithm, *Landsat Science Team Meeting*, Boston, MA, USA, 11/01/2010-11/03/2010 (talk)
- Automated cloud and cloud shadow screening in Landsat imageries based on time series analysis, *Landsat Science Team Meeting*, Boston, MA, USA, 10/27/2009-10/29/2009 (talk)
- Object-based cloud and cloud shadow detection, *The 17th William T. Pecora Memorial Remote Sensing Symposium*, Denver, CO, USA, 11/16/2008-11/20/2008 (talk)

## **MENTORING**

### ***Postdocs***

- Su Ye (2020-), Ph.D., Clark University, 2020
- Xiucheng Yang (2020-), Ph.D., University of Strasbourg, 2019
- Shi Qiu (2019-), Ph.D., University of Electronic Science and Technology of China, China, 2018
- Rong Shang (2018-2020), Ph.D., Chinese Academy of Sciences, China, 2018
- Congcong Li (2018-2019), Ph.D. Beijing Normal University, China, 2014
- Lei Ma (2018), Ph.D. Nanjing University, China, 2016

### ***MS/ Ph.D. Advisees***

- Tian Li (2019-), Ph.D. Student, Dept. of Natural Resources and the Environment, University of Connecticut
- Junxue Zhang (2017-2020), MS Student, Dept. of Natural Resources and the Environment, University of Connecticut

### ***Visiting Scholar Advisees***

- Lin Yukun (2018-2019), Institute of Remote Sensing and Digital Earth, Chinese Academy of Sciences
- Shi Qiu (2017-2018), School of Resources & Environment, University of Electronic Science and Technology of China

### ***M.S., Ph.D. Dissertation, Orals, and/or guiding Committees***

- Ankit Singh (2020-), Ph.D. student, Depart. of Natural Resources and the Environment, University of Connecticut
- Moataz Kilany (2020-), Ph.D. student, Department of Geography, University of Connecticut
- Zhijie Zhang (2019-), Ph.D. student, Department of Geography, University of Connecticut
- Adam Gallagher (2019-), Ph.D. student, Department of Geography, University of Connecticut
- Amal H. Aljaddani (2016-), Ph.D. Student, Department of Geosciences, Texas Tech University
- Shu Li (2018-), M.S. Student, Department of Geosciences, Texas Tech University
- Su Ye (2017-2020), Ph.D. Student, Graduate School of Geography, Clark University
- Tarek Kandakji (2016-2020), Ph.D. Student, Department of Geosciences, Texas Tech University
- Yazhou Sun (2017-2019), M.S. Student, Department of Plant and Soil Science, Texas University



Congliang Zhou (2017-2019), M.S. Student, Department of Geosciences, Texas Tech University  
Abir Raihan (2017-2018), M.S. Student, Department of Plant and Soil Science, Texas University  
Aaron Flores (2017-2018), M.S. Student, Department of Geosciences, Texas Tech University

### ***Undergraduate Advising Committees***

Mari Cullerton (2019-), the University Scholar Program, University of Connecticut

### **UNIVERSITY SERVICE**

2020.9.22 Panelist for UConn's PostDoc Appreciation Week Event  
2020 NRE Seminar Committee Chair, University of Connecticut  
2019- CAHNR Faculty Advisory Council, University of Connecticut  
2019 NRE Seminar Committee, University of Connecticut  
2019-2020 Search Committee, GIS Assistant Professor, University of Connecticut  
2019 External Search Committee, GIS Assistant Professor, University of Connecticut  
2019- NRE Seminar Committee, University of Connecticut  
2017 Organizer, Climate Science Center Monthly Seminar Series, Texas Tech University  
2017-2018 Member, Sedimentary Geology Position Search Committee, Texas Tech University

### **PROFESSIONAL SERVICE**

#### ***Membership & Service***

2018-2023 Member, USGS-NASA Landsat Science Team (LST)  
2018-2021 Member, Science Interface Panel, EROS CaVal Center of Excellence (ECCOE)  
2014- Member, Association of American Geographers (AAG)  
2014- Member, American Geographical Union (AGU)

#### ***Conference Planning***

2018 Chair and Organizer, Annual Meeting of Association of American Geographers, New Orleans  
2017 Chair and Organizer, Annual Meeting of Association of American Geographers, Boston

#### ***Journal Editorial Boards***

2019-2020 Guest Editor, Remote Sensing, Special Issue: Smart Farming and Land Management Enabled by Remotely Sensed Big Data  
2019- Associate Editor, Science of Remote Sensing  
2019- Editorial Board, Remote Sensing  
2018- Associate Editor, Remote Sensing of Environment  
2017- Editorial Board, PeerJ  
2017-2018 Guest Editor, Remote Sensing, Special Issue: Science of Landsat Analysis Ready Data  
2017-2018 Guest Editor, Forests, Special Issue: Mapping Forest Health Using Moderate Resolution Satellites  
2017-2018 Associate Editor, Arabian Journal of Geosciences

#### ***Funding Agency Reviewer***

2017 Proposal Reviewer, Belgian Federal Science Policy Office (BELSPO)  
2016 Proposal Reviewer, Belgian Federal Science Policy Office (BELSPO)  
2016 Proposal Reviewer, National Aeronautics and Space Administration (NASA)

#### ***Journal & Book Reviewer (#of manuscripts or chapters)***

*Access* (1)  
*Agricultural and Forest Meteorology* (2)  
*Applied Sciences* (1)  
*Arid Land Research and Management* (1)  
*Canadian Journal of Remote Sensing* (4)  
*Computer & Geosciences* (2)  
*CRC Press Taylor & Francis Group* (1)  
*Ecological Complexity* (1)  
*International J of Digital Earth* (3)  
*International J of Remote Sensing* (10)  
*International J of the Physical Sciences* (1)  
*J of Applied Remote Sensing* (5)  
*J of Environmental Informatics* (1)  
*J of Mountain Science* (1)  
*J of Photogrammetry & RS* (13)

October 19<sup>th</sup>, 2020

*Environmental Monitoring and Assessment* (1)  
*Environmental Research Letters* (3)  
*Environmental Science: Processes & Impacts* (2)  
*Forests* (3)  
*Frontiers of Earth Science* (2)  
*Geocarto International* (1);  
*Geoinformatics & Geostatistics: An Overview, Geosciences* (1)  
*Geoscience and Remote Sensing Letters* (3)  
*Geo-spatial Information Science* (1)  
*GIScience and Remote Sensing* (4)  
*International J of Applied Earth Obs and Geoinformation* (1)  
*Journal of Cleaner Production* (1)  
*J of Selected Topics in Applied Earth Obs & RS* (10)  
*Methods in Ecology and Evolution* (1)  
*Multimedia Tools and Applications* (1)  
*Photogrammetric Engineering and RS* (1)  
*Remote Sensing* (33)  
*RS Applications: Society and Environment* (5)  
*Remote Sensing of Environment* (55)  
*Sensors* (4)  
*Sustainability* (1)  
*South African Geographical Journal* (1)  
*Transactions on Geoscience and Remote Sensing* (7)  
*Nature Sustainability* (1)