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Google Scholar: <https://scholar.google.com/citations?user=JGNL9BoAAAAJ>

Website: <https://zhanlilz.github.io/>

## EDUCATION

|  |  |
| --- | --- |
| **Boston University** | Boston, MA, USA |
| Ph.D., Geography | 2015 |
| **Chinese Academy of Sciences** | Beijing, China |
| M. S., Cartography & Geographic Information System | 2011 |
| **Nanjing University** | Nanjing, China |
| B. S. in Geographic Information System | 2008 |

## RESEARCH APPOINTMENTS

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| **Helmholtz Centre for Environmental Research – UFZ, Leipzig, Germany** | |
| Project Scientist | 01/2021 to present |
| **GFZ German Research Centre for Geosciences, Potsdam, Germany** | |
| Postdoctoral Scientist | 01/2020 to 06/2021 |
| **Canadian Forest Service, Natural Resources Canada, Victoria** |  |
| Postdoctoral Fellow | 05/2018 to 01/2020 |
| **School for the Environment, University of Massachusetts, Boston** |  |
| Research Fellow | 10/2015 to 04/2018 |

## FUNDING & AWARDS

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| * PI, Helmholtz Centre Potsdam - GFZ German Research Centre for Geosciences, internal call in the Corona context, € 4783, Very-high-resolution satellite images to ensure data continuity for the interpretation of tundra greenhouse gas fluxes. | 2021 |
| * PI, European Space Agency, Third-Party Mission Open Opportunities for Researchers, 22403 km2 of commercial Planet Lab images (equivalent $ ~26,884), Spatial-temporally resolved estimates of gaseous carbon flux from very-high-resolution images and eddy covariance measurements for better carbon accounting in rewetted peatlands. | 2020 |
| * Key Personnel, U.S. Geological Survey, Landsat Science Team, $ 997,968, Global 30m Snow and Snow-free Land Surface Albedo from Landsat and MODIS/VIIRS. | 2017 |
| * Key Personnel, U.S. NASA, Land-Cover/Land-Use Change (LCLUC) Program, $ 901,340, Circumpolar Albedo of Northern Lands from Landsat-8 and Sentinel-2. | 2017 |
| * Key Personnel, U.S. NASA, The Science of Terra, Aqua, and Suomi NPP, $ 574,802, Science Quality Suomi-NPP VIIRS BRDF, Albedo, and NBAR Global Data Analysis Products. | 2017 |
| * Excellent Student of Chinese Academy of Sciences | 2010 |
| * Excellent Graduate of Nanjing University | 2007 |
| * Excellent Student Leader of Nanjing University | 2007 |
| * Social Work Award of Nanjing University | 2006 |

## ACADEMIC SERVICES

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| **Proposal Reviewer / Panelist** | * 2016, NASA Research Opportunities in Space and Earth Sciences, Remote Sensing of Water Quality Program. * 2020, United States-Israel Binational Agricultural Research and Development Fund. |
| **Journal Reviewer** | * **A**gricultural and Forest Meteorology; * **C**limate Dynamics; * **C**omputers and Electronics in Agriculture; * **E**arth System Dynamics; * **E**arth System Science Data; * **F**orest Science; * **I**EEE Transactions on Geoscience and Remote Sensing; * **I**EEE Geoscience and Remote Sensing Letters; * **I**nterface Focus by the Royal Society; * **I**nternational Journal of Digital Earth; * **I**nternational Journal of Remote Sensing; * **I**SPRS Journal of Photogrammetry and Remote Sensing; * **J**ournal of Applied Remote Sensing; * **J**ournal of Geophysical Research – Atmospheres; * **J**ournal of Selected Topics in Applied Earth Observations and Remote Sensing; * **P**LOS One; * **R**emote Sensing; * **R**emote Sensing of Environment; * **R**emote Sensing Letters; * **S**ensors. |

## PEER-REVIEWED PUBLICATIONS

1. **Li, Z.**, Scheffler, D., Coops, N.C., Leach, N., Sachs, T., 2021. Towards analysis ready data of optical CubeSat images: Demonstrating a hierarchical normalization framework at a wetland site. International Journal of Applied Earth Observation and Geoinformation 103, 102502.
2. **Li, Z.**, White, J.C., Wulder, M.A., Hermosilla, T., Davidson, A.M., Comber, A.J., 2020. Land cover harmonization using Latent Dirichlet Allocation. International Journal of Geographical Information Science 35(2), 348–374.
3. **Li, Z.**, Chen, H., White, J.C., Wulder, M.A., Hermosilla, T., 2020. Discriminating treed and non-treed wetlands in boreal ecosystems using time series Sentinel-1 data. International Journal of Applied Earth Observation and Geoinformation 85, 102007.
4. Boucher, P.B., Hancock, S., Orwig, D.A., Duncanson, L., Armston, J., Tang, H., Krause, K., Cook, B., Paynter, I., **Li, Z.**, Elmes, A., Schaaf, C., 2020. Detecting Change in Forest Structure with Simulated GEDI Lidar Waveforms: A Case Study of the Hemlock Woolly Adelgid (HWA; Adelges tsugae) Infestation. Remote Sensing 12.
5. Wulder, M.A., Loveland, T.R., Roy, D.P., Crawford, C.J., Masek, J.G., Woodcock, C.E., Allen, R.G., Anderson, M.C., Belward, A.S., Cohen, W.B., Dwyer, J., Erb, A., Gao, F., Griffiths, P., Helder, D., Hermosilla, T., Hipple, J.D., Hostert, P., Hughes, M.J., Huntington, J., Johnson, D.M., Kennedy, R., Kilic, A., **Li, Z.**, Lymburner, L., McCorkel, J., Pahlevan, N., Scambos, T.A., Schaaf, C., Schott, J.R., Sheng, Y., Storey, J., Vermote, E., Vogelmann, J., White, J.C., Wynne, R.H., Zhu, Z., 2019. Current status of Landsat program, science, and applications. *Remote Sensing of Environment* 225, 127–147.
6. **Li, Z.**, Erb, A., Sun, Q., Liu, Y., Shuai, Y., Wang, Z., Boucher, P., Schaaf, C., 2018. Preliminary assessment of 20-m surface albedo retrievals from sentinel-2A surface reflectance and MODIS/VIIRS surface anisotropy measures. *Remote Sensing of Environment*. 217, 352–365.
7. **Li, Z.**, Strahler, A., Schaaf, C., Jupp, D., Schaefer, M., Olofsson, P., 2018. Seasonal change of leaf and woody area profiles in a midlatitude deciduous forest canopy from classified dual-wavelength terrestrial lidar point clouds. *Agricultural and Forest Meteorology*. 262, 279–297.
8. **Li, Z.**, Schaefer, M., Strahler, A., Schaaf, C., Jupp, D., 2018. On the utilization of novel spectral laser scanning for three-dimensional classification of vegetation elements. *Interface Focus* 8.
9. Wulder, M.A., **Li, Z.**, Campbell, E., White, J.C., Hobart, G., Hermosilla, T., Coops, N., 2018. A National Assessment of Wetland Status and Trends for Canada’s Forested Ecosystems Using 33 Years of Earth Observation Satellite Data. *Remote Sensing*. 10, 1623.
10. Guan, K., **Li, Z.**, Rao, L.N., Gao, F., Xie, D., Hien, N.T., Zeng, Z., 2018. Mapping Paddy Rice Area and Yields Over Thai Binh Province in Viet Nam from MODIS, Landsat, and ALOS-2/PALSAR-2. *IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing*. 11, 2238–2252.
11. Paynter, I., Genest, D., Saenz, E., Peri, F., **Li, Z.**, Strahler, A., Schaaf, C., 2018. Quality Assessment of Terrestrial Laser Scanner Ecosystem Observations Using Pulse Trajectories. *IEEE Transaction on Geoscience and Remote Sensing*. 1–10.
12. Orwig, D.A., Boucher, P., Paynter, I., Saenz, E., **Li, Z.**, Schaaf, C., 2018. The potential to characterize ecological data with terrestrial laser scanning in Harvard Forest, MA. *Interface Focus* 8.
13. Cai, Y., Guan, K., Peng, J., Wang, S., Seifert, C., Wardlow, B., **Li, Z.**, 2018. A high-performance and in-season classification system of field-level crop types using time-series Landsat data and a machine learning approach. *Remote Sensing of Environment*. 210, 35–47.
14. Sun, Q., Wang, Z., **Li, Z.**, Erb, A., & Schaaf, C. B. (2017). Evaluation of the Global MODIS 30 Arc-Second Spatially and Temporally Complete Snow-Free Land Surface Albedo and Reflectance Anisotropy Dataset. *International Journal of Applied Earth Observation and Geoinformation*, *58*, 36–49.
15. Liu, Y., Wang, Z., Sun, Q., Erb, A. M., **Li, Z.**, Schaaf, C. B., Zhang, X., Román, M. O., Scott, R. L., Zhang, Q., Novick, K. A., Syndonia Bret-Harte, M., Petroy, S., & SanClements, M. (2017). Evaluation of the VIIRS BRDF, Albedo and NBAR Products Suite and an Assessment of Continuity with the Long Term MODIS Record. *Remote Sensing of Environment*, *201*, 256–274.
16. Paynter, I., Genest, D., Saenz, E., Peri, F., Boucher, P., **Li, Z.**, Strahler, A. H., & Schaaf, C. (2017). Classifying Ecosystems with Metaproperties from Terrestrial Laser Scanner Data. *Methods in Ecology and Evolution*, (June), 1–13.
17. **Li, Z.**, Jupp, D. L. B., Strahler, A. H., Schaaf, C. B., Howe, G., Hewawasam, K., Douglas, E., Chakrabarti, S., Cook, T., Paynter, I., Saenz, E., & Schaefer, M. (2016). Radiometric Calibration of a Dual-Wavelength, Full-Waveform Terrestrial Lidar. *Sensors*, 16(3), 313.
18. Paynter, I., Saenz, E., Genest, D., Peri, F., Erb, A., **Li, Z.**, Wiggin, K., Muir, J., Raumonen, P., Schaaf, E. S., Strahler, A. H., & Schaaf, C. (2016). Observing Ecosystems with Lightweight, Rapid-Scanning Terrestrial Lidar Scanners. *Remote Sensing in Ecology and Conservation*, 1–16.
19. Hui, F., Kang, J., Liu, Y., Cheng, X., Gong, P., Wang, F., **Li, Z.**, Ye, Y., & Guo, Z. (2016). AntarcticaLC2000: The New Antarctic Land Cover Database for the Year 2000. *Science China Earth Sciences*.
20. Hancock, S., Armston, J., **Li, Z.**, Gaulton, R., Lewis, P., Disney, M., Mark Danson, F., Strahler, A., Schaaf, C., Anderson, K., & Gaston, K. J. (2015). Waveform Lidar over Vegetation: An Evaluation of Inversion Methods for Estimating Return Energy. *Remote Sensing of Environment*, 164(0), 208–224.
21. Douglas, E. S., Martel, J., **Li, Z.**, Howe, G., Hewawasam, K., Marshall, R. A., Schaaf, C. L., Cook, T. A., Newnham, G. J., Strahler, A., & Chakrabarti, S. (2015). Finding Leaves in the Forest: The Dual-Wavelength Echidna Lidar. *Geoscience and Remote Sensing Letters*, *IEEE*, 12(4), 776–780.
22. Liu, C., Huang, H., Gong, P., Wang, X., Wang, J., Li, W., Li, C., & **Li, Z.** (2015). Joint Use of ICESat/GLAS and Landsat Data in Land Cover Classification: A Case Study in Henan Province, China. *Selected Topics in Applied Earth Observations and Remote Sensing, IEEE Journal*, 8(2), 511-522.
23. Howe, G. A., Hewawasam, K., Douglas, E. S., Martel, J., **Li, Z.**, Strahler, A., Schaaf, C., Cook, T. A., & Chakrabarti, S. (2015). Capabilities and Performance of Dual-Wavelength Echidna® Lidar. *Journal of Applied Remote Sensing*, 9(1), 95979.
24. **Li, Z.**, Strahler, A., Schaaf, C., Howe, G., Martel, J., Hewawasam, K., Douglas, E., Chakrabarti, S., Cook, T., Paynter, I., Saenz, E., Wang, Z., Yang, X., Woodcock, C., Jupp, D., Schaefer, M., Culvenor, D., Newnham, G., & Lovell, J. (2014). Effective Area Indexes and Angle Distributions of Leafy and Woody Components of Forests from Dual-Wavelength Terrestrial Lidar Scanning Data. In *Geoscience and Remote Sensing Symposium (IGARSS), 2014 IEEE International*. Quebec City, Canada.
25. Hui, F., Cheng, X., Liu, Y., Zhang, Y., Ye, Y., Wang, X., **Li, Z.**, Wang, K., Zhan, Z., Guo, J., Huang, H., Li, X., Guo, Z., & Gong, P. (2013). An Improved Landsat Image Mosaic of Antarctica. *Science China Earth Sciences*, *56*(1), 1–12.
26. **Li, Z.**, Douglas, E., Strahler, A., Schaaf, C., Yang, X., Wang, Z., Yao, T., Zhao, F., Saenz, E. J., Paynter, I., Woodcock, C. E., Chakrabarti, S., Cook, T., Martel, J., Howe, G., Jupp, D. L. B., Culvenor, D. S., Newnham, G. J., & Lovell, J. L. (2013). Separating Leaves from Trunks and Branches with Dual-Wavelength Terrestrial Lidar Scanning. *Geoscience and Remote Sensing Symposium (IGARSS), 2013 IEEE International* (pp. 3383–3386). Melbourne, Australia.
27. Yang, X., Schaaf, C., Strahler, A., **Li, Z.**, Wang, Z., Yao, T., Zhao, F., Saenz, E., Paynter, I., Douglas, E., Chakrabarti, S., Cook, T., Martel, J., Howe, G., Woodcock, C., Jupp, D., Culvenor, D., Newnham, G., & Lovell, J. (2013). Studying Canopy Structure through 3-D Reconstruction of Point Clouds from Full-Waveform Terrestrial Lidar. *Geoscience and Remote Sensing Symposium (IGARSS), 2013 IEEE International* (pp. 3375–3378). Melbourne, Australia.
28. Wang, X., Cheng, X., Huang, H., **Li, Z.** (2013). DEM production for Dome-A combining GPS and GLAS data. *Journal of Remote Sensing* 17, 439–451.
29. Wang, X., Cheng, X., **Li, Z.**, Huang, H., Niu, Z., Li, X., & Gong, P. (2012). Lake Water Footprint Identification from Time-Series ICESat/GLAS Data. *Geoscience and Remote Sensing Letters, IEEE*, *9*(3), 333–337.
30. Douglas, E. S., Strahler, A., Martel, J., Cook, T., Mendillo, C., Marshall, R., Chakrabarti, S., Schaaf, C., Woodcock, C., **Li, Z.**, Yang, X., Culvenor, D., Jupp, D., Newnham, G., & Lovell, J. (2012). DWEL: A Dual-Wavelength Echidna Lidar for Ground-Based Forest Scanning. *Geoscience and Remote Sensing Symposium (IGARSS), 2012 IEEE International* (pp. 4998–5001). Munich, Germany.
31. Gong, P., **Li, Z.**, Huang, H., Sun, G., & Wang, L. (2011). ICESat GLAS Data for Urban Environment Monitoring. *Geoscience and Remote Sensing, IEEE Transactions on*, *49*(3), 1158–1172.
32. Huang, H., **Li, Z.**, Gong, P., Cheng, X., Clinton, N., Cao, C., Ni, W., & Wang, L. (2011). Automated Methods for Measuring DBH and Tree Heights with a Commercial Scanning Lidar. *Photogrammetric Engineering & Remote Sensing*, *77*(3), 219–227.
33. Wang, X., Cheng, X., Gong, P., Huang, H., **Li, Z.**, & Li, X. (2011). Earth Science Applications of ICESat/GLAS: A Review. *International Journal of Remote Sensing*, *32*(23), 8837–8864.
34. Gong, P., Niu, Z., Cheng, X., Zhao, K., Zhou, D., Guo, J., Liang, L., Wang, X., Li, D., Huang, H., Wang, Y., Wang, K., Li, W., Wang, X., Ying, Q., Yang, Z., Ye, Y., **Li, Z.**, Zhuang, D., Chi, Y., Zhou, H., & Yan, J. (2010). China’s Wetland Change (1990–2000) Determined by Remote Sensing. *Science China Earth Sciences*, *53*(7), 1036–1042.

## INVITED TALKS

1. **Li, Z.**, Scheffler, D., Coops, N.C., Leach, N., Weituschat, M., Sachs, T., 2021. Demonstrating the Generation and Application of Analysis Ready Data of Optical CubeSat Images at a Rewetted Peatland Site. Presented at *the ARD21 Satellite Data Interoperability Workshop*, Online.
2. Schaaf, C., **Li, Z.**, Elmes, A., Erb, A., Sun, Q., Shuai, Y., Liu, Y., Wang, Z., 2019. Global 30m snow and snow free land surface albedo from Landsat and MODIS/VIIRS. Presented at *the 2019 Landsat Science Summer Meeting*, Sioux Falls, South Dakota, USA.
3. **Li, Z.**, 2018. Some Latest Advances in Terrestrial Laser Scanning for Forest Applications and Prospects for the Near Future. Presented at *the Seminar at Canadian Forest Service (Pacific Forestry Centre), Natural Resources Canada*, Victoria, Canada.
4. **Li, Z.**, Schaefer, M., 2017. Full-waveform terrestrial laser scanning. Presented at *the Theo Murphy Scientific meeting of the Royal Society: The terrestrial laser scanning revolution in forest ecology*, Kavli Royal Society Centre, Chicheley Hall, Newport Pagnell, Buckinghamshire, UK.
5. Schaaf, C., **Li, Z.**, Shuai, Y., Sun, Q., Erb, A., Liu, Y., 2016. North American Surface Albedos from Landsat. Presented at *the 2016 Landsat Science Summer Meeting*, Brookings, USA.
6. Schaaf, C., Liu, Y., Sun, Q., **Li, Z.**, Wang, Z., 2016. BRDF/Albedo/NBAR: Extending MODIS to VIIRS. Presented at *the 2016 MODIS/VIIRS Science Meeting*, Silver Spring, USA.

## CONFERENCE PRESENTATIONS

1. Erb, A.M., **Li, Z.**, Schaaf, C., Elmes, A., Tian, J., Boucher, P., Wang, Z., Rogers, B., 2019. Using Multi-source, Moderate Resolution Albedo from Landsat and Sentinel-2 to Identify Drivers in High Latitude Fire Disturbances, in: *The 2019 European Space Agency Living Planet Symposium*. Milan, Italy.
2. Elmes, A., Erb, A., Wang, Z., Sun, Q., **Li, Z.**, Hall, D.K., Schaaf, C., 2019. Albedo-Driven Radiative Forcing Dynamics from Seasonal Melt of the Greenland Ice Sheet. Presented at *the AGU Fall Meeting*, pp. B23G-2484.
3. Erb, A., Schaaf, C., **Li, Z.**, Elmes, A., Boucher, P., Rogers, B.M., 2019. Radiative Forcing implications of boreal forest disturbances characterized with multi-source, higher resolution albedo from Landsat and Sentinel-2. Presented at *the AGU Fall Meeting*, pp. B53H-2501.
4. Schaaf, C., Wang, Z., Elmes, A., Sun, Q., Erb, A., Tian, J., Boucher, P., **Li, Z.**, Gao, F., Zhang, X., Lucht, W., Strahler, A.H., Rouhani, S., 2019. Two Decades of MODIS Daily Albedo, NBAR, and BRDF products. Presented at *the AGU Fall Meeting*, pp. GC11K-1120.
5. Schaaf, C., Boucher, P.B., Strahler, A., Orwig, D., Paynter, I., **Li, Z.**, Elmes, A., Peri, F., Disney, M., 2019. Advances in terrestrial laser scanning of forest canopy structure. Presented at *the 2019 ESA Annual Meeting*, ESA.
6. Boucher, P., Hancock, S., Orwig, D., Duncanson, L., Armston, J.D., Cook, B., Krause, K., Elmes, A., Peri, F., **Li, Z.**, Paynter, I.L., Schaaf, C., 2019. Potential for the Detection of the Hemlock Woolly Adelgid Infestation from Space. Presented at the *AGU Fall Meeting*, pp. B11E-2365.
7. **Li, Z.**, Schaaf, C. B., Shuai, Y., Liu, Y., Sun, Q., Erb, A. M., & Wang, Z. (2017). Preliminary Evaluation of Surface Albedo at Fine Spatiotemporal Resolution from Landsat/Sentinle-2A Surface Reflectance and MODIS/VIIRS Surface Anisotropy. Poster. *2017* *Joint Ameriflux and NACP Principal Investigators Meeting*. North Bethesda, MD, USA.
8. Erb, A., Li, Z., Schaaf, C., Wang, Z., Rogers, B.M., 2017. Snow driven Radiative Forcing in High Latitude Areas of Disturbance Using Higher Resolution Albedo Products from Landsat and Sentinel-2. Presented at the *AGU Fall Meeting*, pp. A51P-08.
9. **Li, Z.**, Schaaf, C. B., Shuai, Y., Liu, Y., Sun, Q., Erb, A. M., & Wang, Z. (2016). Potential Long-Term Records of Surface Albedo at Fine Spatiotemporal Resolution from Landsat/Sentinle-2A Surface Reflectance and MODIS/VIIRS BRDF. Oral Presentation. *2016* *American Geophysical Union Fall Meeting*. San Francisco, USA.
10. **Li, Z.**, Strahler, A.H., Schaaf, C., Jupp, D.L.B., Howe, G.A., Hewawasam, K., Chakrabarti, S., Cook, T., Paynter, I., Saenz, E.J., Yang, X., Yao, T., 2016. Vertical Structure Measurements of Leaves and Woody Materials with Dual-Wavelength Laser Scanning, in: *Harvard Forest Symposium 2016*. Petersham, USA.
11. Schaaf, C., **Li, Z.**, Liu, Y., Shuai, Y., Sun, Q., Wang, Z., Erb, A.M., Paynter, I., 2016. Using Higher Resolution Albedo Product from Landsat and Sentinel 2A to assess Landscape Heterogeneity and Temporal Albedo Dynamics, in: *The 2016 European Space Agency Living Planet Symposium*. Prague, Czech Republic.
12. Schaaf, C., Liu, Y., **Li, Z.**, Sun, Q., Erb, A., Shuai, Y., Wang, Z., 2016. Evaluation of MODIS/VIIRS/Landsat-8 Albedo Products over BSRN Sites, in: *The 2016 14th BSRN Scientific Review and Workshop*. Canberra, Australia.
13. Schaaf, C.B., Erb, A.M., Shuai, Y., Sun, Q., Wang, Z., Liu, Y., **Li, Z.**, Paynter, I., 2016. Temporal Albedo Dynamics in Boreal Forest Fire Scars Using Higher Resolution Albedo Products from Landsat and Sentinel 2A. Presented at *the ForestSAT 2016*, Santiago, Chile.
14. **Li, Z.**, Strahler, A.H., Schaaf, C., Jupp, D.L.B., Howe, G.A., Hewawasam, K., Chakrabarti, S., Cook, T., Paynter, I., Saenz, E.J., Yang, X., Yao, T., 2015. Improving Canopy Vertical Structure Measurements with Dual-Wavelength Laser Scanning, in: *The 2015 American Geophysical Union Fall Meeting*. San Francisco, USA.
15. **Li, Z.**, Strahler, A., Schaaf, C., Jupp, D., Howe, G., Hewasasam, K., Chakrabarti, S., Cook, T.A., Paynter, I., Saenz, E., 2015. Seasonal Change of Leaf and Woody Area Profiles in a Temperate Deciduous Forest Canopy from a Dual-Wavelength Terrestrial Lidar, in: *Silvilaser 2015,* *14th International Conference of Lidar Applications for Assessing and Managing Forest Eco*systems. La Grande Motte, France.
16. **Li, Z.**, Strahler, A., Jupp, D., Schaaf, C., Howe, G., Hewasasam, K., Chakrabarti, S., Cook, T.A., Paynter, I., Saenz, E., 2015. Calibration of a full-waveform, dual-wavelength terrestrial laser scanner, in: *Silvilaser 2015, 14th International Conference of Lidar Applications for Assessing and Managing Forest Ecosystems*. La Grande Motte, France.
17. Li, Z., Strahler, A., Schaaf, C., Jupp, D., Howe, G., Hewasasam, K., Chakrabarti, S., Cook, T.A., Paynter, I., Saenz, E., 2015. Seasonal Change of Leaf and Woody Area Profiles in a Temperate Deciduous Forest Canopy from a Dual-Wavelength Terrestrial Lidar, in: Silvilaser 2015, 14th International Conference of LiDAR Applications for Assessing Forest Ecosystems. La Grande Motte, France.
18. Saenz, E.J., Paynter, I., Francesco, P., Schaaf, C., **Li, Z.**, Strahler, A.H., Erb, A., Muir, J., TLSIIG Collaborators, 2015. Using Terrestrial Laser Scanners to Establish Forest Structure at Harvard Forest. Presented at *the 2015 Harvard Forest Symposium*, Petersham, USA.
19. **Li, Z.**, Strahler, A., Schaaf, C., Howe, G., Martel, J., Hewawasam, K., Douglas, E., Chakrabarti, S., Cook, T., Paynter, I., Saenz, E. J., Wang, Z., Woodcock, C. E., Jupp, D. L. B., Schaefer, M., & Newnham, G. J. (2014). Poster. Structure Measurements of Leaf and Woody Components of Forests with Dual-Wavelength Lidar Scanning Data. *2014 American Geophysical Union Fall Meeting*. San Francisco, USA.
20. **Li, Z.**, Strahler, A., Schaaf, C., Howe, G., Martel, J., Hewawasam, K., Douglas, E., Chakrabarti, S., Cook, T., Paynter, I., Saenz, E. J., Wang, Z., Yang, X., Woodcock, C. E., Jupp, D. L. B., Schaefer, M., Culvenor, D. S., Newnham, G. J., & Lovell, J. L. (2014). Separating Structure Measurements of Leaves and Woody Materials of Forests with Dual-Wavelength Echidna Lidar. Oral Presentation. *ForestSAT 2014*. Riva del Garda, Italy.
21. **Li, Z.**, Strahler, A., Schaaf, C., Howe, G., Martel, J., Hewawasam, K., Douglas, E., Chakrabarti, S., Cook, T., Paynter, I., Saenz, E., Wang, Z., Yang, X., Woodcock, C., Jupp, D., Schaefer, M., Culvenor, D., Newnham, G., & Lovell, J. (2014). Oral Presentation. Effective Area Indexes and Angle Distributions of Leafy and Woody Components of Forests from Dual-Wavelength Terrestrial Lidar Scanning Data. In *Geoscience and Remote Sensing Symposium (IGARSS), 2014 IEEE International*. Quebec City, Canada.
22. **Li, Z.**, Strahler, A., Douglas, E., Martel, J., Chakrabarti, S., Cook, T., Howe, G., Schaaf, C., Wang, Z., Saenz, E., Paynter, I., Yang, X., Kim, J., Rouhani, S., Pahlevan, N., Yang, Y., Liu, Y., Jupp, D., Culvenor, D., Kampe, T., 2013. Forest structure and separation of leafy and woody material using terrestrial full waveform lidar: Results from the 2012 NEON Harvard Forest campaign. Presented at *the 98th ESA Annual Convention*, Minneapolis, Minnesota, USA.
23. Armston, J., Newnham, G., Strahler, A., Schaaf, C., Danson, M., Gaulton, R., Zhang, Z., Burt, A., Calders, K., Disney, M., Goodwin, N., Hancock, S., Hero, J.-M., Jupp, D., Herold, M., Howe, G., Johansen, K., **Li, Z.**, Muir, J., Paynter, I., Phinn, S., Saenz, E., Schaefer, M., & Walker, L. (2013). Terrestrial Laser Scanning International Interest Group (TLSIIG): Brisbane Instrument Intercomparison. *Silvilaser 2013*, 13th International Conference of LiDAR Applications for Assessing Forest Ecosystems. Beijing, China.
24. **Li, Z**., Strahler, A., Schaaf, C., Howe, G., Martel, J., Hewawasam, K., Douglas, E., Chakrabarti, S., Cook, T., Paynter, I., Saenz, E. J., Wang, Z., Yang, X., Yao, T., Zhao, F., Woodcock, C. E., Jupp, D. L. B., Schaefer, M., Culvenor, D. S., Newnham, G. J., & Lovell, J. L. (2013). Poster. Separating Leaves from Trunks and Branches with Dual-Wavelength Terrestrial Lidar Scanning: Improving Canopy Structure Characterization in 3-D Space. *2013 American Geophysical Union Fall Meeting*. San Francisco, USA.
25. Schaaf, C., Strahler, A., van Aardt, J., Chakrabarti, S., **Li, Z.**, Wang, Z., Yang, X., Saenz, E., Paynter, I., Erb, A., Yang, Y., Liu, Y., Rouhani, S., Peri, F., Kim, J., Cawse-Nicholson, K., Romanczyk, P., Kelbe, D., Faulring, J., Nicholson, T., Douglas, E., Martel, J., Howe, G., Hewawasam, K., Cook, T., Culvenor, D., Newnham, G., Jupp, D., Lovell, J., Krause, K., Leisso, N., Kampe, T., & Meier, C. (2013). Terrestrial LiDAR Measures of Forest Structure. *Silvilaser 2013*, 13th International Conference of LiDAR Applications for Assessing Forest Ecosystems. Beijing, China.
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30. **Li, Z.**, Huang, H., & Gong, P. (2010). Oral Presentation. Automatic Registration of Multi-Scan Terrestrial Lidar Data of Forests with Stem Features. *Silvilaser 2010*, the 10th International Conference on Lidar Applications for Assessing Forest Ecosystems. Freiburg, Germany.

## TEACHING & MENTORING

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| * **Instructor**, Introduction to Machine Learning, Helmholtz Center for Environmental Research – UFZ   + Design syllabus and course structure on the basics of machine learning algorithms for regression and classification problems.   + Design lab tutorials in Jupyter Notebook for the hands-on practice. | 2021-present |
| * **Mentor**, Pauline Seubert, undergraduate student at Heidelberg University, research assistant at UFZ   + Supervise the internship and the undergraduate thesis on application of very-high-resolution Planet Labs images to wetlands in Germany. | 2021-present |
| * **Co-Supervisor**, Mirjam Weituschat, M.Sc. student at University of Greifswald   + Co-supervise the master thesis on the vegetation dynamics and its relation to carbon sequestration in a rewetted peatlands (fen) in northeast Germany. | 2020-present |
| * **Guest Lecturer**, Digital Image Processing and Analysis, University of North Texas   + Designed and delivered a guest lecture on Digital Imagery and Common Remote Sensing Platforms with a focus on Sentinel-2.   + Co-designed lab tutorials on searching, downloading, and analyzing Sentinel-2 images and comparing with Landsat-8 images. | 2020 |
| * **Lab & Field Instructor**, Introduction to Remote Sensing, University of Massachusetts Boston   + Delivered a lab lecture on measuring spectra of vegetative elements using ASD spectrometer and Planet Probe.   + Coordinated and instructed a field practice on forest inventory, including using diameter tapes and laser rangefinders. | 2016 |
| * **Lab Instructor**, Introduction to Geographic Information Systems, University of Massachusetts Boston   + Co-designed lab tutorials on using ArcGIS on different operating systems to accommodate the students’ backgrounds in computers.   + Tutored and helped the students in and outside the lab to troubleshoot their problems with using ArcGIS. | 2016 |
| * **Teaching Assistant**, Seminar on Lidar Remote Sensing, Boston University   + Delivered several guest lectures on the principles of lidar remote sensing, radiometric calibration of lidar instruments and lidar data processing.   + Guided seminar discussions on lidar applications to vegetative environments. | 2014 |
| * **Field Instructor**, Field Measurements in Remote Sensing, Boston University   + Designed the lab tutorial on practicing forest inventory and the lab assignment sheets.   + Led and instructed the students on a field trip to Harvard Forest to learn and practice forest inventory including setting up plots, using diameter tapes and laser rangefinders, and identifying tree species. | 2014 |

## MEMBERSHIPS of SCIENTIFIC SOCIETIES

* Member of the American Geophysical Union
* Member of the IEEE Geoscience and Remote Sensing Society

## REFERENCES

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