Dr. Susan K. Meerdink

Department of Geographical and Sustainability Sciences

Curriculum Vitae as of June 5, 2024

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EDUCATION AND PROFESSIONAL HISTORY

Higher Education

2014 – 2018	**Ph.D.** Geography, University of California Santa Barbara
2012 – 2014	**M.A.** Geography, University of California Santa Barbara
2007 – 2012	**B.S.** Geographical Information Science, Summa Cum Laude, University of Northern Iowa
2007 – 2012	**B.A.** Ecology & Systematics Honors Research, Magna Cum Laude, University of Northern Iowa

Professional and Academic Positions

2020 – Present*	**Assistant Professor**, Department of Geographical & Sustainability Sciences, University of Iowa
2019 – 2020	**Postdoctoral Researcher**, College of Engineering, University of Florida
2016 – 2018	**Graduate Research Assistant**, NASA Jet Propulsion Laboratory
2014 – 2018	**Graduate Research Assistant**, University of California Santa Barbara
2017 – 2017	**Geospatial Remote Sensing Intern**, The Climate Corporation
2012 – 2015	**Teaching Assistant**, University of California Santa Barbara

***** Maternity leave August 2020 – December 2020 and May 2023 – August 2023

Honors and Awards

2023	Iowa Center for Research by Undergraduates (ICRU) Distinguished Mentor Award
2018	Jack Estes Remote Sensing Memorial Award, U. of California, Santa Barbara
2014	Outstanding Student Paper Award, American Geophysical Union
2011	CW Lantz Scholarship, University of Northern Iowa
2011	Irene Thompson Scholarship, University of Northern Iowa
2011	Pudil Environmental Scholarship, University of Northern Iowa
2010	Pudil Environmental Scholarship, University of Northern Iowa
2010	La Duke Family Scholarship, University of Northern Iowa
2009	Pond and Water Scholarship, University of Northern Iowa
2008	Vivian Wisemen Fuller Scholarship, University of Northern Iowa
2008	Distinguished Scholar, University of Northern Iowa

Memberships

American Geophysical Union (AGU)
American Society for Photogrammetry and Remote Sensing (ASPRS)
Association of American Geographers (AAG)
Ecological Society of America (ESA)
Institute of Electrical and Electronics Engineers (IEEE)

TEACHING

Courses Taught at the University of Iowa

Term	Course #	Title	Ten-Day Enrollment	Final Enrollment
Spring 2024	GEOG:3500	Intro. To Environmental Remote Sensing	24	20
Spring 2024	GEOG:2050	Foundations of GIS	90	82
Fall 2023	GEOG:1030	Our Digital Earth	24	23
Fall 2023	BIOL/GEOG:2374	Biogeography	60	60
Spring 2023	GEOG:1050	Foundations of GIS (Course Supervisor)	87	79
Fall 2022	GEOG:4500	Advanced Remote Sensing	16	16
Fall 2022	BIOL/GEOG:2374	Biogeography	58	56
Spring 2022	GEOG:6500	Seminar in Spatial Analysis and Modeling: Remote Sensing for Sustainability	8	8
Spring 2022	GEOG:1050	Foundation of GIS	68	64
Fall 2021	GEOG:1050	Foundations of GIS	77	64
Fall 2021	BIOL/GEOG:2374	Biogeography	58	57
Spring 2021	GEOG:1050	Foundations of GIS	64	59
Spring 2021	BIOL/GEOG:2374	Biogeography	47	46

Innovations in Teaching (Other Teaching Contributions)

8/2021 – Present **Co-Lead of the Edge of Space Summer Academy** (https://edgeofspace.sites.uiowa.edu/) funded by the P3 Extending Iowa's Success in Space-Based Research Across Campus. A 2.5-week workshop providing a diverse group of students will design, build, test, fly, and analyze data from small scientific instruments.

Student Mentoring (* indicates chair of the committee)

Ph.D.

2024 – Present Jalissa Pirro * (Geographical and Sustainability Sciences)
2023 – Present Taylor, Sam * (Geographical and Sustainability Sciences)
2023 – Present Demiray, Bekir Zahit (Civil and Environmental Engineering)
2021 – Present Islam, Mainul * (Geographical and Sustainability Sciences)
2021 – Present Little, Matthew (Geographical and Sustainability Sciences)
2023 – 2024 Zhouyayan, Li (Civil and Environmental Engineering)
2021 – 2023 MacDonald, Neal (Geographical and Sustainability Sciences)
2022 – 2022 Mykleby, Eric (Geographical and Sustainability Sciences)

M.A.

2023 – 2024 Swanepoel, Daniel (Civil and Environmental Engineering)
2022 – 2023 Taylor, Sam * (Geographical and Sustainability Sciences)
2022 – 2023 Pearson, Katie

Undergraduate

2024 – Present Young, Isaac
2022 – 2024 Back, Hannah (UI-MARC program)

SCHOLARSHIP

Publications

CLAS * System * = Senior Author, Major Contribution, ** = Secondary Contribution *** = Equal Contribution, **** = Minor Contribution

Refereed Articles

13. * **Meerdink, S.**, Hiatt, D., Flory, S. L., & Zare, A. (2024). Dealing with imperfect data for invasive species detection using multispectral imagery. Ecological Informatics, 79, 102432. https://doi.org/10.1016/j.ecoinf.2023.102432

12. *** Dannenberg, M. P., Barnes, M. L., Smith, W. K., Johnston, M. R., **Meerdink, S. K.**, Wang, X., Scott, R. L., & Biederman, J. A. (2023). Upscaling dryland carbon and water fluxes with artificial neural networks of optical, thermal, and microwave satellite remote sensing. *Biogeosciences*, *20*(2), 383–404. https://doi.org/10.5194/bg-20-383-2023

11. * Lin, Y., **Meerdink, S.K.**, & Gader, P.D. (2022). Spectral Transformations for Multi-Temporal Hyperspectral Classification. *IEEE Geoscience and Remote Sensing Letters*, 19, 1–5. https://doi.org/10.1109/LGRS.2021.3136569

10. ** Miller, D.L., Alonzo, M., **Meerdink, S.K.,** Allen, M.A., Tague, C.L., Roberts, D.A., & McFadden, J.P. (2022). Seasonal and interannual drought responses of vegetation in a California urbanized area measured using complementary remote sensing indices. *ISPRS Journal of Photogrammetry and Remote Sensing*, 183, 178–195. https://doi.org/10.1016/j.isprsjprs.2021.11.002

9. *** Meerdink, S.**, Bocinsky, J., Zare, A., Kroeger, N., McCurley, C., Shats, D., & Gader, P. (2021). Multi-target Multiple-Instance Learning for Hyperspectral Target Detection. *IEEE Transactions on Geoscience and Remote Sensing*, doi: 10.1109/TGRS.2021.3060966

8. **** Kibler, C. L., Parkinson, A. L., Peterson, S. H., Roberts, D. A., Antonio, C. M. D., **Meerdink, S. K.**, & Sweeney, S. H. (2019). Monitoring post-fire recovery of chaparral and conifer species using field surveys and Landsat time series. *Remote Sensing*, *11*(2963), 1–25. https://doi.org/10.3390/rs11242963

7. ** Dennison, P. E., Qi, Y., **Meerdink, S. K.**, Kokaly, R. F., Thompson, D. R., Daughtry, C. S. T., Quemada, M., Roberts, D.A., Gader, P.D., Wetherley, E.B., Numata, I., & Roth, K. L. (2019). Comparison of methods for modeling fractional cover using simulated satellite hyperspectral imager spectra. *Remote Sensing*, *11*(2072), 1–23. https://doi.org/10.3390/rs11182072

6. *** Meerdink, S. K.,** Roberts, D. A., Roth, K. L., King, J. Y., Gader, P. D., & Koltunov, A. (2019). Classifying California plant species temporally using airborne hyperspectral imagery. Remote Sensing of Environment, 232, 111308. https://doi.org/10.1016/j.rse.2019.111308

5. *** Meerdink**, **S.K.**, Hook, S.J., Abbott, E.A., & Roberts, D.A. (2019). The ECOSTRESS Spectral Library 1.0. Remote Sensing of Environment, 230, 111196, https://doi.org/10.1016/j.rse.2019.05.015

4. *** Meerdink, S.K.,** Roberts, D. A., Hulley, G., Gader, P.D., Pisek, J., Raabe, K., King, J., & Hook, S. J. (2019). Plant species' spectral emissivity and temperature using the Hyperspectral Thermal Emission Spectrometer (HyTES) sensor. Remote Sensing of Environment, 224, 421–435.

3. *** Meerdink, S.,** Bocinsky, J., Wetherley, E., Zare, A., Mccurley, C., & Gader, P. (2019). Developing spectral libraries using multiple target multiple instance adapative cosine/coherence estimator. *2019 10th Workshop on Hyperspectral Imaging and Signal Processing: Evolution in Remote Sensing (WHISPERS)*, 1–5. https://doi.org/10.1109/WHISPERS.2019.8920989

2. ** Fick, R., Gader, P., Zare, A., & **Meerdink, S.** (2019). Temporal mapping of hyperspectral data. *2019 10th Workshop on Hyperspectral Imaging and Signal Processing: Evolution in Remote Sensing (WHISPERS)*, 1–4. https://doi.org/10.1109/WHISPERS.2019.8921373

1. *** Meerdink, S.K.,** Roberts, D.A., King, J. Y., Roth, K. L., Dennison, P. E., Amaral, C. H., & Hook, S. J. (2016). Linking seasonal foliar traits to VSWIR-TIR spectroscopy across California ecosystems. Remote Sensing of Environment, 186, 322-338.

Book Chapters

1. ** Roberts, D. A., Roth, K. L., Wetherley, E. B., **Meerdink, S. K**., & Perroy, R. L. (2018). Hyperspectral Vegetation Indices. In Hyperspectral Indices and Image Classifications for Agriculture and Vegetation (2nd ed.). CRC Press.

Publications In Progress

Meerdink, S.K., Roberts, D.A., King, J. Y., Gader, P.D., and Caylor, K. Monitoring water stress of Southern California plant species during the 2013 – 2015 drought. In review at *ISPRS.*

Taylor, S., **Meerdink, S.,** Tate, E. Assessing Wildfire Spatial Variability with Hyperspectral Data in Debris-Flow Modeling. Submitted to *Geophysical Research Letters*.

Jaynes, A., **Meerdink, S.,** Skibbe, A. The University of Iowa Edge of Space Academy. In prep.

Grants and Contracts

Funded

July 2024 – June 2027	*Growing Iowa Into a Leader in Airborne and Ground-based Earth Science Measurement Capability* Funded by University of Iowa P3 Strategic Plan Support Funds Program. Award amount: ($1,270,000) Investigators: M. McGill (Principle Investigator), S. Meerdink (Co-Investigator)
Aug 2024 – July 2028	*RII Track-2 FEC: Data-Advanced Research and Education (DARE) to improve weather intelligence, localized climate change assessment and resilience capability in ag-based communities* Funded by the NSF EPSCoR Research Infrastructure Improvement Program: Track-2. Award amount: ($5,999,727). Investigator/s S. Meerdink (Co-Investigator), J. Wang (Principal Investigator)
Apr 2024 – Mar 2025	*Acquiring plant growth chambers for research and teaching in ecology and plant science* Funded by the Roy J. Carver Charitable Trust. Award amount: ($348,015) Investigator/s S. Meerdink (Co-Investigator), M. Dannenberg (Principle Investigator)
Jan 2023 – Dec 2023	*Hyperspectral satellite remote sensing: The new tool for detecting harmful algal blooms (HAB) events in Iowa's lakes* Funded by the University of Iowa's Interdisciplinary Scalable Solutions for a Sustainable Future Project. Award amount: ($39,113) Investigator/s S. Meerdink (Principle Investigator), M. Skopec (Co-Investigator)
Jan 2022 – Dec 2025	*Alliance of Plant Phenotyping Software (APPS) Developers: Integration and Interoperability of Open-Source Tools to Support Plant Phenotyping for Agriculture* Funded by the National Institute of Food and Agriculture's Agriculture and Food Research Initiative (AFRI). Award Amount: ($999,992.00) Investigators: S. Meerdink (Co-Investigator), M. Gehan (PI), N. Fahlgren, & A. Zare.

Jan 2022 – Dec 2022	*Iowa Healthy Lakes Initiative: A multi-dimensional approach to measuring, informing, and solving Iowa's Harmful Algal Bloom Challenge* Funded by the University of Iowa's Jumpstarting Tomorrow Program. Award Amount: ($149,951), Investigators: S. Meerdink (Co-Investigator), G. LeFevere, C. Markfort, E. Pizzi, P. Thorne, & X. Zhou.
Sep 2021 – Sep 2024	*Extending Iowa's Success in Space-Based Research Across Campus* Funded by University of Iowa P3 Strategic Plan Support Funds Program. Award amount: ($3,495,751) Investigators: S. Meerdink (Co-Investigator)
Dec 2020 – Jun 2021	*Determining the need for the management of invaded mangrove and coastal prairie plant communities* Funded by University of Iowa College of Liberal Arts and Sciences Dean's Micro-Grant. Award amount: ($1772) Investigators: S. Meerdink (Principal Investigator)
Oct 2020 – Oct 2023	*Determining the need for the management of invaded mangrove and coastal prairie plant communities* Funded by National Park Service Cooperative Ecosystem Studies Units Network. Award amount: ($240,000) Investigators: S. Meerdink (Co-Investigator)
Sep 2020 – Sep 2022	*A hard rain's gonna fall: Responses of Iowa's bur oak to increased precipitation variability* Funded by the University of Iowa's Interdisciplinary Scalable Solutions for a Sustainable Future Project. Award amount: ($35,500) Investigator/s S. Meerdink (Co-Investigator), M. Dannenberg (Principal Investigator)
Aug 2016 – Jun 2018	*Plant species mapping, water, and LMA using HyTES* Funded by Jet Propulsion Laboratory Subcontract. Award amount: ($70,000) Investigator/s S. Meerdink (Co-Investigator), D. A. Roberts (Principal Investigator)
Aug 2015 – May 2018	*Discriminating California plant species and evaluating temperature relations across seasons within drought impacted ecosystems* Funded by NASA Earth and Space Science Fellowship. Award amount: ($90,000) Investigator/s S. Meerdink (Co-Investigator), D. A. Roberts (Principal Investigator)
Aug 2010 – May 2012	*Taimyr Wild Reindeer calving grounds dynamics* Funded by NASA Iowa Space Grant. Award amount: ($21,000) Investigator/s S. Meerdink (Co-Investigator), A. Petrov (Principal Investigator)
Aug 2009 – May 2010	*Long-term implications of the "Ethanol Boom"* Funded by NASA Iowa Space Grant. Award amount: ($7,000) Investigator/s S. Meerdink (Co-Investigator), M. Clayton (Principal Investigator)
Aug 2008 – May 2009	*Ecological niche model of Glyptemys insculpta in Iowa* Funded by NASA Iowa Space Grant. Award amount: ($7,000) Investigator/s S. Meerdink (Co-Investigator), M. Clayton (Principal Investigator)

Pending

Not Funded

July 2024 – June 2027	*Leveraging SMAP and VIIRS to understand pulse responses and inter-storm dynamics of water balance and plant stress in dryland ecosystems* Funded by NASA. Investigator/s S. Meerdink (Co-Investigator), M. Dannenberg (Principal Investigator)
July 2024 – June 2027	*Rurally Impacted Veterans and Environmental Health Research (RIVEHR)* Funded by the National Institute of Health. Award amount: ($2,568,285). Investigator/s S. Meerdink (Co-Investigator), J. Wang (Principal Investigator)
Aug 2023 – July 2024	*MRI: Track 2 Acquisition of the Hawkeye Airborne Observatory* Funded by the National Science Foundation Major Research Instrumentation Program. Award amount: ($2,790,137) Investigators: S. Meerdink (Principal Investigator), T. Schnell (Co-Investigator).
Aug 2023 – July 2025	*Improving representation of spatial and temporal heterogeneity in dryland carbon and water fluxes with PlanetScopeSuperDove imagery* Encourage to submit to NASA Commerical Smallsat Data Scientific Analysis Step 2 due March 2023. Award amount: (TBD) Investigators: S. Meerdink (Principal Investigator), Dannenberg, M. (Co-Investigator), Barnes, M. (Co-Investigator), Kannenberg, S. (Co-Investigator).
Aug 2022 – July 2023	*MRI Acquisition of the Hawkeye Airborne Observatory* Funded by the National Science Foundation Major Research Instrumentation Program. Award amount: ($3,642,147) Investigators: S. Meerdink (Principal Investigator), T. Schnell (Co-Investigator).
May 2021 – May 2022	*Measuring plant responses to increased precipitation variability using hyperspectral data* Funded by Iowa Initiative for Artificial intelligence. Award amount: ($12,500) Investigator/s: S. Meerdink (Principal Investigator), M. Dannenberg (Co-Investigator).
Dec 2020 – Dec 2022	*Using AI to Improve the Robustness, Reliability, and Real-time potential of Atmospheric Correction for Hyperspectral Imaging* Funded by DARPA. Award amount: ($612,915) Investigator/s S. Meerdink (Co-Investigator), A. Zare (Principal Investigator)
Aug 2020 – Aug 2022	*Predicting nearshore red tide trends with oceanographic and atmospheric patterns* Funded by Southeast Climate Adaptation Science Center. Award amount: ($351,000) Investigator/s S. Meerdink (Co-Investigator), M. Olabarrieta (Principal Investigator)
Aug 2020 – Aug 2023	*CPS: Frontier: AHEAD of the curve: Analysis of HEterogeneous, Adaptive Data for continuous feedback and risk mitigation in the food system* Funded by NSF Cyber-Physical Systems. Award amount: ($1,533,235) Investigator/s S. Meerdink (Co-Investigator), A. Zare (Principal Investigator)

Invited Lectures and Conference Presentations

Colloquium or Seminar

2024 South Florida Natural Resources Center Monthly Seminar. *Hurricane effects on the distribution and management of plant invasions in coastal habitats.* Presenters/Authors: Meerdink, S.

2024 2024 Everglades Cooperative Invasive Species Annual Summit Invited Speaker. *Leveraging remote sensing and machine learning to detect Brazilian peppertree in the Everglades National Park.* Presenters/Authors: Meerdink, S.

2024 Syracuse University's Modeling the Next Big Thing Seminar. *Monitoring dynamics of invasive plants using remote sensing and machine learning tools.* Presenters/Authors: Meerdink, S.

2024 University of Iowa GSS and ESS Seminar. *Monitoring dynamics of invasive plants using remote sensing and machine learning tools.* Presenters/Authors: Meerdink, S.

2020 Phenome Workshop. *Introduction to Hyperspectral Image Processing.* Phoenix, Arizona, United States. Presenters/Authors: Meerdink, S., & Zare. A.

2020 Headwall Photonics Seminar. *Multi-target multiple instance learning for hyperspectral target detection.* Gainesville, Florida, United States. Presenters/Authors: Meerdink, S.

2020 University of Iowa Department of Geographical and Sustainability Sciences Colloquium. *Understanding our natural environment using machine learning techniques with hyperspectral and thermal imagery*. Presenters/Authors: Meerdink, S.

2018 University of Florida Civil Engineering Graduate Seminar. *Remote sensing of plant species using airborne hyperspectral Visible-Shortwave Infrared and Thermal Infrared.* Presenters/Authors: Meerdink, S.

2017 University of California Santa Barbara Tech Lunch Seminar. *Classifying California plant species throughout the drought using airborne imaging spectroscopy.* Presenters/Authors: Meerdink, S.

2016 University of Florida Department of Geography Colloquium. *California plant species across seasons using airborne VSWIR and TIR imagery.* Presenters/Authors: Meerdink

2014 University of California Santa Barbara Biographical Sciences Seminar. *Linking seasonal foliar chemistry to VSWIR-TIR spectroscopy across California ecosystems.* Presenters/Authors: Meerdink, S.

2013 University of California Santa Barbara Department of Geography Colloquium. *Linking seasonal foliar chemistry to VSWIR-TIR spectroscopy across California ecosystems.* Presenters/Authors: Meerdink, S.

Conference Presentations

Regional

2017 **Meerdink, S.K.**, Hook, S.J., Abbott, E.A., Roberts, D.A. *The ECOSTRESS Spectral Library*. HyspIRI Science Workshop. Pasadena, CA. (Presentation)

2017 Dennison, P., Kokaly, R., Thompson, D.R., Daughtry, C. Gader, P., **Meerdink, S.K.,** Quemada, M., Roberts, D.A., Wetherley, E.B. *Comparing methods for mapping fractional cover using simulated HyspIRI spectra.* HyspIRI Science Workshop. Pasadena, CA. (Presentation)

2016 **Meerdink, S.K.**, Roberts, D.A., Hook, S.J. *Spectral emissivity features of plants: Prospects for the Hyperspectral Thermal Emission Spectrometer (HyTES) sensor*. HyspIRI Science Workshop. Pasadena, CA. (Presentation)

2013 **Meerdink, S.**, Roberts, D.A., Amaral, C., Hook, S., King, J. *Linking seasonal foliar chemistry to VSWIR-TIR spectroscopy across California ecosystems*. HyspIRI Science Workshop. Pasadena, CA. (Presentation)

National

2020 **Meerdink, S.K.**, Bocinsky, J., Zare, A., McCurley, C., Shats, D., Gader, P. *Plant functional type detection using the Multi-Target Multiple Instance Adaptive Cosine Estimator algorithm.* 2020 Phenome. (Presentation)

2016 **Meerdink, S.K.**, Roberts, D.A., Roth, K. *Differentiating California plant species across seasons using airborne VSWIR and TIR imagery*. Association of American Geographers Annual Meeting. San Francisco, CA. (Presentation)

2012 **Meerdink, S**., Petrov, A.N., Kolpashchikov, L., Pestereva, A.V. *Taimyr wild reindeer spatial fidelity and calving grounds dynamics in a changing climate*. Association of American Geographers Annual Meeting. New York, NY. (Presentation)

2011 **Meerdink, S**., Petrov, A.N., Voss, M., Sugumaran, R. *Long-term implications of the "ethanol boom" for American agriculture: Iowa case study*. Association of American Geographers Annual Meeting. Seattle, WA. (Presentation)

International

2023 Taylor, S., **Meerdink, S**., Tate, E. *Modeling Debris-Flow Risk Using Hyperspectral Remote Sensing of Wildfire Burn Severity.* American Geophysical Union Fall Meeting. San Francisco, CA. (Poster)

2022 **Meerdink, S.K.**, Hiatt, D., Flory, S.L., Zare, A. *Detecting Invasive Plant Species in the Everglades National Park.* American Geophysical Union Fall Meeting. Chicago, IL. (Poster)

2022 Jaynes, A., **Meerdink, S.K.** *The Edge of Space Academy: An Example of an Immersive and Experiential Summer Undergraduate Research Program.* American Geophysical Union Fall Meeting. Chicago, IL. (Presentation)

2022 Islam, A.H.M.M., **Meerdink, S.K.,** Griffin, M., Johnston, M., Kraus, E., Pearson, L., Skopec, M., Skibbe, A., Weinberger, M., Dannenberg, M. *Bur Oak blight & photosynthesis: Predicting Vcmax and Jmax using leaf hyperspectral and partial least squares regression*. American Geophysical Union Fall Meeting. Chicago, IL. (Poster)

2022 Dannenberg, M., Barnes, M., Smith, W., Johnston, M., **Meerdink, S.K.,** Wang, X., Scott, R., Biederman, J., Flerchinger, G. *Upscaling dryland carbon and water fluxes with artificial neural networks of optical, thermal, and microwave remote sensing.* American Geophysical Union Fall Meeting. Chicago, IL. (Presentation)

2022 Kraus, E., **Meerdink, S.K.,** Griffin, M., Islam, A.H.M.M., Johnston, M., Pearson, L., Skopec, M., Skibbe, A., Weinberger, M., Dannenberg, M. *Seasonal effects of the fungal pathogen Tubakia iowensis (bur oak blight) on the photosynthetic capacity of infected Quercus macrocarpa (bur oak).* American Geophysical Union Fall Meeting. Chicago, IL. (Poster)

2019 **Meerdink, S.K.**, Bocinsky, J., Zare, A., McCurley, C., Shats, D., Gader, P. *Multi-target multiple instance learning for hyperspectral target detection.* 2019 WHISPERS Workshop. Amsterdam, Netherlands. (Presentation)

2019 **Meerdink, S.K.**, Bocinsky, J., Wetherley, E., Zare, A., McCurley, C., Gader, P. *Developing spectral libraries using multiple target multiple instance adaptive cosine/coherence estimator.* 2019 WHISPERS Workshop. Amsterdam, Netherlands. (Poster)

2017 **Meerdink, S.K.**, Roberts, D.A., Hook, S.J. *Exploring spectral emissivity features of plants from leaf to canopy levels*. American Geophysical Union Fall Meeting. New Orleans, LA. (Presentation)

2016 **Meerdink, S.K.**, Roberts, D.A., Hook, S. *Spectral emissivity features of plants: Prospects for the Hyperspectral Thermal Emission Spectrometer (HyTES) sensor*. American Geophysical Union Fall Meeting. San Francisco, CA. (Poster)

2015 **Meerdink, S.K.**, Roberts, D.A., Roth, K. *Discriminating plant species across California's diverse ecosystems using airborne VSWIR and TIR imagery*. American Geophysical Union Fall Meeting. San Francisco, CA. (Poster)

2014 **Meerdink, S.**, Roberts, D.A., Roth, K., Amaral, C., Hook, S., King, J. *Linking seasonal foliar chemistry to VSWIR-TIR spectroscopy across California ecosystems*. American Geophysical Union Fall Meeting. San Francisco, CA. (Presentation)

2012 **Meerdink, S**., Petrov, A.N., Kolpashchikov, L., Pestereva, A.V. *Taimyr wild reindeer spatial fidelity and calving grounds dynamics in a changing climate*. International Polar Year Conference. Montréal, Canada. (Presentation)

SERVICE

Profession

2018 – Present	Reviewer for Remote Sensing of Environment, International Journal of Remote Sensing, Remote Sensing, Applications in Plant Sciences, Ecosphere, GigaScience, European Journal of Remote Sensing, New Phytologist, GIScience & Remote Sensing, IEEE Transactions on Geoscience and Remote Sensing
2021 – Present	IEEE Geoscience and Remote Sensing Society (GRSS) Inspire, Develop, Empower, Advance (IDEA) committee member
2022	University Consortium for Geographic Information Science Training and Retaining Leaders in STEM – Geospatial Sciences (TRELIS) Cohort
2022	National Aeronautics and Space Administration Grant Reviewer
2021	National Aeronautics and Space Administration Grant Reviewer
2020	National Aeronautics and Space Administration Grant Reviewer
2021	IEEE GRSS Boston Hackathon Judge
2019	Session Chair for IEEE Workshop in Hyperspectral Image and Signal Processing: Evolution in Remote Sensing
2014 – 2015	Vice President of UCSB Student Chapter of the American Society for Photogrammetry and Remote Sensing (ASPRS)
2013	Session Chair for the Association of American Geographers Annual Conference

Department

2020 – Present	Undergraduate Committee
2023 – Present	1st Generation at Iowa Mentor
2022 – 2024	Faculty Assembly Representative
2023	Admitted Student Days
2022	Redesign GIS Certificate and proposal for CLAS undergrad committee
2021	Redesigned GEOG:1050 Labs for ArcGIS Pro
2021 – 2022	Kohn Colloquium Lead

Community

2019	Organized and presented engineering outreach workshop for K-12 students
2012 – 2018	Chair of UCSB Geography Department's Visibility and Outreach Committee
2012 – 2018	Planned and executed Geography Awareness Week in November where UCSB Geography Department faculty and students attend local K-12 schools to share their perspective and love of geography. As part of this even I also presented at local school sharing my research.
2012 – 2018	Planned and attended tabling events at local K - 9 school's Science Nights
2014 – 2018	Planned, organized, and presented a workshop at an AAUW Tech Savvy event geared at attracting girls 6- 9 grades into STEM fields.