

Patrick Ryan Graham

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Education

University of Alaska Fairbanks	Earth Sciences	B.A., 2015
University of Alaska Fairbanks	Geology	M.Sc., 2020

Appointments

2020 to present	Field Coordinator, Oregon Hazards Lab, University of Oregon
2018 to 2019	Field Assistant, Pacific Northwest Seismic Network, University of Oregon
Aug to Dec 2017	Teaching Assistant, College of Natural Science and Mathematics, University of Alaska Fairbanks
2016 to 2017	Graduate Research Assistant. Geophysical Institute, University of Alaska Fairbanks
2014 to 2016	Student Research Assistant. University of Alaska Fairbanks
Summer, 2013 – 2014	GeoFORCE Alaska Counselor. University of Alaska Fairbanks College of Natural Science and Mathematics GeoFORCE program

Research Experience

2015 to 2020	UAF HyLab , <i>University of Alaska Fairbanks</i> , Fairbanks, Alaska: Assisting with system calibration, aerial, and field implementation of HySpex hyperspectral camera system. Operator of the HySpex instrument mounted on a Found Aircraft <i>Bush Hawk</i> .
2014 to 2017	Geophysical Institute , <i>University of Alaska Fairbanks</i> , Fairbanks, Alaska Implementing flux tower instrumentation and collecting field-data for validation of a surface energy flux balance model. Performing radiometric corrections and processing NOAA AVHRR, MODIS and LANDSAT imagery for production of regional surface heat flux maps.

Products

Graham, Patrick R. (2020). *Airborne Hyperspectral Imaging for Wetland Mapping in the Yukon Flats, Alaska*. University of Alaska Fairbanks, Fairbanks.

Cristóbal, J., Buchhorn, M., Prakash, A., **Graham, Patrick**. (2016). Observations from field to space: a new integrated high-latitude hyperspectral laboratory for surface water and vegetation characterization in Alaska's Arctic and boreal regions.

Buchhorn, M., Prakash, A., Hampton, D.L., Cristóbal-Rosselló, J., Waigl, C.F., Stuefer, M., **Graham, P.** (2016). HyLab: Alaska's In-State Capability for Airborne Imaging Spectroscopy – Applications for Permafrost, Abstract 882 presented at International Conference on Permafrost, Potsdam, Germany, 20-24 Jun. 2016.

Prakash, A., Buchhorn, M., Cristobal, J., Kokaly, R., **Graham, P. R.**, Waigl, C.F., Hampton, D.L., Werdon, M., Guldager, N., Bertram, M., Stuefer, M. (2015). Field-Based and Airborne Hyperspectral Imaging for Applied Research in the State of Alaska, Abstract GC23K-1233 presented at 2015 Fall Meeting, AGU, San Francisco, Calif., 14-18 Dec.

Prakash, A., Gens, R., Cristobal, J., Waigl, C.F., Balazs, M.S., **Graham, P. R.**, Butcher, C.E., Sparrow, E.B. (2015). Using Place-Based Independent Class Projects as a Means to Hone Research Skills and Prepare a Future Geospatial Workforce, Abstract ED22B-07 presented at 2015 Fall Meeting, AGU, San Francisco, Calif., 14-18 Dec.

Graham, P. R., Cristóbal-Rosselló, J., Prakash, A. (2015). Estimation of surface energy fluxes in Arctic ecosystems: integrating multiplatform remote sensing and field data. Poster session presented at: American Water Resources Association Alaska Section Annual Conference and Workshops; 2015 May 13-15; Fairbanks, AK

Graham, P. R., Cristóbal-Rosselló, J., Prakash, A. (2015). Integrating multiplatform remote sensing and field data to estimate energy fluxes under snow conditions in arctic ecosystems. Poster session presented at: Alaska Space Grant Education and Research Symposium; 2015 April 23-24; Fairbanks, AK.

Graham, P. R., Cristóbal-Rosselló, J., Prakash, A. (2014). Hydrologic modelling in sub-arctic boreal forests using remote sensing: an enhanced undergraduate education through research. Poster session presented at: American Association for the Advancement of Science Arctic Science Conference; 2014 Sept. 27-28; Fairbanks, AK

Synergistic Activities

- Recipient of Alaska Space Grant Program Undergraduate Fellowship (2014). Recipient of University of Alaska URSA Fall Project Award (2015).
- 2013 - 2019 Counselor, Alaska GeoFORCE Summer Academy for rural high school students.

Collaborators & Other Affiliations

(i) Collaborators: Marcel Buchhorn^{1,2}, Anupma Prakash¹, Martin Stuefer¹, Christine Waigl: (1) Hyperspectral Imaging Laboratory (HyLab), Geophysical Institute, University of Alaska Fairbanks. (2) Alaska Geobotany Center, Institute of Arctic Biology, University of Alaska Fairbanks.

(ii) Graduate Advisor: Jordi Cristobal Rosello, Geophysical Institute, University of Alaska Fairbanks