High Latitude Physical Oceanography

Multiple Graduate student (MS or PhD) positions

Multiple opportunities exist for self-starting graduate students interested in understanding ocean-atmosphere coupling, fresh water cycling, ice-ocean interactions, dynamics of Arctic and sub-Arctic continental shelves, and bottom-up forcing of marine ecosystems. Project foci will be developed based on student interests. All projects would have a broad suite of primary data resources available for analysis, including shipboard hydrography, moored time series, and hindcast integrations of regional ocean circulation models. Projects will include fieldwork on the UAF-operated R/V Sikuliaq and smaller regional vessels. Oceanographic research opportunities exist within the multidisciplinary context of the Northern Gulf of Alaska Long Term Ecological Research (NGA-LTER) and Gulf Watch Alaska programs, the Arctic Integrated Ecosystem Research Program (Arctic IERP), the Chukchi Ecosystem Observatory (CEO), and the Arctic Marine Biodiversity Monitoring Network (AMBON).

Physics in Support of Northern Gulf of Alaska Long Term Ecological Research

The Northern Gulf of Alaska is a subpolar biome characterized by enhanced production and high environmental variability. This project is part Gulf Watch Alaska and the new NGA LTER site and focuses on understanding processes that lead to resilience over the slope and shelf regions of the NGA, including Prince William Sound. This is a field-intensive project with 3 cruises annually.

Physics in Support of Arctic Marine Ecosystem Research

As a changing climate and sea ice retreat progressively expose the Arctic to a longer open water season, society will confront new resource management issues surrounding the cultures and subsistence lifestyles of local indigenous communities, potential impacts of industrial activities, potential changes to regional ocean carrying capacity, and the functioning of Arctic marine ecosystems. We seek a better understanding of the mechanistic drivers that lead to variability in the heat, fresh water and circulation of the Arctic shelves.

For more information about the supporting projects, visit:

https://nga.lternet.edu	https://gulfwatchalaska.org	http://chukchiecosystemobservatory.org
https://ambon-us.org	https://www.nprb.org/arctic-program	http://research.cfos.uaf.edu/gak1

Applicants must have a strong background in physics and/or oceanography, and strong quantitative, written and oral communication skills. Experience participating in field research and computer programming is desirable. Underrepresented students are encouraged to apply.

Funding is available for 2.5 (M.S.) or 5 (Ph.D.) years and it includes full stipend, health insurance and tuition waiver. Initial acceptance is typically at the Master's level with possibilities to later expand into a Ph.D., or directly into a Ph.D. for those already at the M.S. level. The student will be required to present work at international conferences, and to produce publishable manuscripts.

Advisor: Seth Danielson. For additional information email (sldanielson@alaska.edu).

Deadline: Application information at http://www.uaf.edu/cfos/academics/graduate/oceanography/. Applications for graduate admission to UAF with all supporting documentation, transcripts and test scores must be received by UAF no later than June 1, 2019 for fall 2019 admission. Contact Dr. Danielson before April 15, 2019.

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