Postdoctoral positions available:
Mathematics and Data Science for Improved Physical Modeling and Prediction of Arctic Sea Ice
Funded by Office of Naval Research
Multidisciplinary University Research Initiatives (MURI) Program

Multiple postdoctoral research positions are available under a new multi-institution project between New York University, California Institute of Technology, University of Washington, University of Wisconsin-Madison, and Yale University to develop an improved mathematical framework for sea ice prediction.

Successful applicants will work on projects, each one interrelated and collaborative, studying sea-ice processes incorporating a range of approaches as outlined below. Positions will be located at the respective collaborating institutions. Each position is for 12 months, with possible extension depending on performance. Applicants must hold (or expected to hold by the start date of their appointment) a PhD in Mathematics, Earth Sciences, including Atmospheric, Oceanic, and Cryospheric dynamics, or a related field, and must be within five years of receiving their degree. Appointments can start as early as Summer or Fall 2019, and applications will be reviewed until the positions are filled.


- **California Institute of Technology** (Supervised by Andrew Thompson). Process-based modeling to improve understanding of ocean-ice-atmospheric coupling in the marginal ice zone. The postdoc will interact closely with other components of the MURI initiative, especially the analysis of in situ and remote sensing observations and the development of new sea ice rheologies. Apply by email to Bronagh Glaser at bglaser@gps.caltech.edu.

- **University of Washington** (Supervised by Georgy Manucharyan). Development and analysis of floe-based sea ice model, exploration of sea ice interactions with ocean and atmosphere, development of novel remote sensing products to study sea ice dynamics, machine learning applications to understanding sea ice rheology. UW application link is to be announced. For more information email Georgy Manucharyan at gmanuch@uw.edu.

- **University of Wisconsin-Madison** (Supervised by Nan Chen and Sam Stechmann). Multi-scale and stochastic modeling and simulation, for sea ice and coupled atmosphere-ocean-sea ice dynamics. Data assimilation, uncertainty quantification and prediction of sea ice and coupled atmosphere-sea ice models using stochastic tools for developing reduced-order models. Apply at https://www.mathjobs.org/jobs/jobs/13880.

- **Yale University** (Supervised by Mary-Louise Timmermans). Analysis of upper ocean, sea ice, and atmospheric measurements to characterize relevant dynamics of the sea-ice system, and interface with theoretical and numerical modeling developments under the MURI. Apply by email to mary-louise.timmermans@yale.edu.

Applications must include a cover letter, curriculum vitae with a publication list, a statement of professional interests, and contact information for three references. Applicants wishing to be considered for positions in multiple universities are requested to indicate this in their cover letters, and submit a separate application for each position of interest. For more information, email Dimitris Giannakis, dimitris@cims.nyu.edu, or any of the collaborating PIs listed above.