



# DARTMOUTH COLLEGE

## *Postdoctoral Position in Inverse Problems for Sea Ice Data Fusion*

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The Department of Mathematics and Thayer School of Engineering at Dartmouth College invite applications for two postdoctoral appointments with an anticipated start date of August 1, 2021. These are non-tenure track positions that are renewable for up to two additional academic years contingent upon performance and subject to budgetary approval. These positions are part of a Department of Defense Office of Naval Research (DoD-ONR) funded Multidisciplinary University Research Initiatives (MURI) project on the “The Integrated Foundation of Sensing, Modeling, and Data Assimilation for Sea Ice Prediction.”

Both postdocs will work closely with an interdisciplinary team to help develop new formulations and computational techniques for high dimensional inverse problems involving multiple disparate data sources and computationally expensive models. These mathematics efforts are driven and focused by application sea ice prediction, which requires integration of multiple sparse, disparate datasets and uncertain models. The postdocs will be expected to contribute to all aspects of the project ranging from the development of novel problem formulations to the analysis of computational techniques and software development. Candidates should have a solid background in deterministic or Bayesian inverse problems, ideally involving physics-based models and spatially distributed parameter fields, as well as an interest in remote sensing and software development. Exposure to sea ice modeling is also beneficial. Salary is set at \$60,000 per year. The initial appointment is for 12 months, effective August 1, 2021.

The post-doctoral appointee could have the opportunity to teach one or two ten-week courses; contingent on course availability in the Mathematics Department and teaching qualifications. Salary will be adjusted accordingly and set by the Associate Dean of the Arts and Sciences Division.

Dartmouth College, a member of the Ivy League, is located in Hanover, New Hampshire (on the Vermont border). Dartmouth has a beautiful, historic campus, located in a scenic area on the Connecticut River. Recreational opportunities abound in all four seasons. The department ([math.dartmouth.edu](http://math.dartmouth.edu)) is home to 22 tenured and tenure-track faculty members, as well as visiting faculty and postdoctoral fellows. The Department of Mathematics is in the School of Arts and Sciences, and has a strong PhD program and outstanding undergraduate majors.

Eligibility requires completion of the PhD in mathematical sciences, engineering, or a closely related field, by August 1, 2021. Applicants should submit a curriculum vitae, thesis abstract, statement of research plans and interests, and at least three letters of recommendation. At least one referee should address the applicant’s ability as a teacher and, if the applicant’s native language is not English, the applicant’s ability to use English in the classroom. The position will remain open until filled; applications completed by **January 5, 2021** will receive first consideration.

To initiate an application go to [www.mathjobs.org](http://www.mathjobs.org) — Position ID: [Dartmouth-IPSIDF #16690](#) and fill out the required application form online. General inquiries can be sent to Tracy Moloney, Department of Mathematics, Dartmouth College, 6188 Kemeny Hall, Hanover, New Hampshire 03755-3551. Specific questions on the selection process can be referred to Professor Anne Gelb ([annegelb@math.dartmouth.edu](mailto:annegelb@math.dartmouth.edu)).

Dartmouth College is an equal opportunity/affirmative action employer with a strong commitment to diversity and inclusion. We prohibit discrimination on the basis of race, color, religion, sex, age, national origin, sexual orientation, gender identity or expression, disability, veteran status, marital status, or any other legally protected status. Applications by members of all underrepresented groups are encouraged.

[math.dartmouth.edu/activities/recruiting](http://math.dartmouth.edu/activities/recruiting)