



# DARTMOUTH COLLEGE

## *Network Science Applications in the Behavioral and Biomedical Sciences*

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The Department of Mathematics at Dartmouth College invites applications for a postdoctoral appointment that can start as early as December 1, 2024. This appointment will be under the direction of Professor Peter Mucha, with potential funding through grants from the ARL, NIDDK and NSF on different applications of network science in interdisciplinary collaborations for modeling within-person dynamics of cognitive processes, modeling disease transmission at the human/animal interface, and metabolomic data analysis. Specific areas of research interest include community detection, higher-order interactions, link prediction, statistical analysis of time series from dynamical processes, and other areas of scientific machine learning.

Successful applicants may also have the opportunity to work interdisciplinarily with faculty affiliated with the Jack Byrne Academic Cluster in Mathematics and Decision Science — Dimitris Giannakis (Mathematics), Peter Mucha (Mathematics), and James Smith (Tuck School of Business) — as well as other faculty in data and decision science across the College. Areas of research interest in the Cluster include but are not limited to climate monitoring and forecasting, decision analysis and dynamic programming, dynamical systems, and network science applications in the behavioral and biomedical sciences.

Applicants must hold (or expect to hold by the start date of their appointment) a Ph.D. in Mathematics, Applied Mathematics, Computer Science, Engineering, Physics, Statistics, or a related field. Successful applicants are expected to be no more than 3 years past their doctorate. The ideal candidate will have a background related to one or more of the research areas described above as well as a keen, demonstrable interest in interdisciplinary collaboration.

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

The postdoctoral positions are intended for two to three years, with an initial one-year appointment renewable contingent upon performance.

Located in Hanover, New Hampshire, Dartmouth College is an Ivy League university that offers students, postdoctoral scholars, and faculty a close-knit academic community with global reach. Part of the Faculty of Arts and Sciences, the Department of Mathematics has 24 tenured and tenure-track faculty members, a strong PhD program, and outstanding

undergraduate majors. Members of the department have collaborative connections across campus. In addition, postdoctoral scholars and graduate students are supported by the [Guarini School for Graduate and Advanced Studies](#), including their [diversity and inclusion initiatives](#). A complete list of all current openings in Mathematics can be found on our website: <http://www.math.dartmouth.edu/activities/recruiting/>.

The Department of Mathematics and [Dartmouth](#) are committed to fostering a diverse, equitable, and inclusive population of students, faculty, and staff. Dartmouth recently launched a new initiative, [Toward Equity](#), that embraces shared definitions of diversity, equity, inclusion, and belonging as a foundation for our success in institutional transformation. The specific efforts of the Mathematics department are highlighted on our [website](#). We are especially interested in applicants who are able to work effectively with students, faculty, and staff from all backgrounds and with different identities and attributes. In addition, we value applicants who have a demonstrated ability to contribute to Dartmouth's undergraduate diversity initiatives in STEM research, such as the Women in Science Program, E. E. Just STEM Scholars Program, and Academic Summer Undergraduate Research Experience (ASURE). Applicants should provide a statement that addresses how their teaching, research, service, and/or life experiences prepare them to advance Dartmouth's commitments to diversity, equity, and inclusion. Applicants should state in their cover letter how their teaching, research, service, and /or life experiences prepare them to advance Dartmouth's commitments to diversity, equity, and inclusion.

Applicants should submit the following via MathJobs:

1. Application form,
2. Cover letter,
3. Curriculum vitae,
4. Statement of research experience, plans and interests,
5. Statement of pedagogical experience and interests,
6. At least three, preferably four, letters of recommendation. At least one reference 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. At least two references should address the applicant's research ability.

The Department will give first consideration to applications completed by October 15, 2024, but will accept applications until available positions are filled.

To initiate an application, go to <http://www.mathjobs.org> — Position ID **NSABB #24881** and fill out the required application form online. General inquiries can be sent to the Department Administrator, Tracy Moloney, [tfmoloney@math.dartmouth.edu](mailto:tfmoloney@math.dartmouth.edu). Specific questions on the selection process can be referred to Professor Peter Mucha ([Peter.J.Mucha@dartmouth.edu](mailto:Peter.J.Mucha@dartmouth.edu)).

### **Equal Employment Opportunity Statement**

Dartmouth College is an equal opportunity/affirmative action employer with a strong commitment to diversity and inclusion. We prohibit discrimination on the basis of sex, race,

color, religion, age, disability, status as a veteran, national or ethnic origin, sexual orientation, gender identity, gender expression, or any other category protected by applicable law, in the administration of its educational policies, admission policies, scholarship and loan programs, employment, or other school administered programs. Applications by members of all underrepresented groups are encouraged.

If you are an applicant with a disability and need accommodations to assist in the job application or interview process, please email [ADA@dartmouth.edu](mailto:ADA@dartmouth.edu). In the subject line, please state “Application Accommodations” and include the job number or title. Someone from the ADA Compliance Office will be in touch within 2 business days.

For additional employment opportunities at Dartmouth College, please visit the [Dartmouth Interfolio Job Board](#), the [Office of the Provost](#), and the [Office of Human Resources](#).

Offers of employment are contingent upon consent to a pre-employment background check with results acceptable under Dartmouth policy. Please visit the [Office of Human Resources](#) for details.

All Dartmouth College employees must comply with the College’s health and safety guidelines and protocols, including but not limited to those related to COVID-19, such as any testing, masking, or distancing requirements that may be in place at any given time or place.

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