The Job Process

SCE Geometry-Topology 2025

Overview

- Step 1: Finding jobs that match your goals
- Step 2: Applying for jobs
- Step 3: Interviews
- Step 4: Negotiating an offer
- Step 0: What you can do now!

Step 1: Finding jobs that match your goals!

Main Academic Job Types in U.S.

Postdoc (typically 2-3 years)

- Research, Teaching [0 to 2-2 (two courses each of two semesters)], Light Service.
- NSF Postdoc eligible to US Citizens, nationals, legally admitted permanent resident aliens.

Research Institution Tenure-Track

- Research, Teaching [typically 2-1 or 2-2], Service
- Typically at PhD-granting institutions
- Prior postdoc is almost always required

Teaching Focused Tenure-Track at Primarily Undergraduate Institution (PUI)

- Teaching [2-2 to 4-4], Research/Scholarship, Service
- Typically not PhD-granting institutions: Small Liberal Arts Colleges, Branch of State University, …
- Some PUIs expect a postdoc

Lecturer/Visiting Assistant Professor/Teaching Postdoc (1 year to Indefinite)

- Teaching [2-2 to 4-4], may have time for research or be asked to do service

Finding open jobs in the U.S.

Mainly **mathjobs.org**, but also

- AMS website (eims.ams.org) or Notices of the AMS
- Chronicle of Higher Education
- HigherEdJobs (www.higheredjobs.com)
- Newsletters (AWM, MathAlliance, …)
- Department Websites
- word of mouth
- social media

A typical new PhD might apply for 20-100 entry-level positions.

Step 2. Applying for jobs

The Application Dossier

Standard stuff:

- Cover Letter
- AMS Standard Cover Letter (mathjobs)
- CV
- Research Statement
- Teaching Statement
- 3+ Reference Letters (w/ at least one on teaching)

Possibly also:

- Diversity Statement
- Webpage
- Transcripts (Undergrad & Grad)
- Teaching Portfolio
- Institution-Specific Document

Order of Importance

Some general guidelines…..

Postdoc/TT Research

1. Letters of Recommendation
2. Research Statement
3. CV
4. ???

Primarily Undergraduate (PUI)

1. Cover Letter
2. CV
3. Teaching + Diversity Statements
4. Research Statement + Letters of Recommendation

Your **webpage** will likely be looked at!

Who reads the applications?

- This varies quite a bit depending on the institution.
- There is usually a committee that reads the files. This committee consists of faculty members, but (for TT) can also have undergraduate students or graduate students or someone from a department outside of math.
- All faculty can have input to this committee.
- At some places the whole faculty votes on whom to make offers.

Letters of Recommendation

Whom to ask:

- Advisor
- Prominent mathematicians in your area
  - best if you've met them and/or they are interested in your work
  - institutional/international diversity can help your file
  - get a sense of their reputation as letter-writers (ask around)
  - get only positive letters, from the biggest names you can
- Department teaching coordinator: request a classroom observation

Contact letter writers at least a month before first deadline.

+ Talk/Zoom with letter writers so they understand your achievements and goals.

+ Offer to summarize key points of work in writing.

Cover Letter

For post-doc or TT Research Position

- Usually brief.
- Letter can help direct file to correct person (mention names).

For Undergraduate Focus Institutions (PUI)

- Extremely important!
- Committee members want to know:

  * Why are you applying to this college/university?

  * Are you aware of teaching/research/service expectations?

Research Statement

Length: Usually 5 for postdocs; possibly shorter for PUI and longer for TT (research)

Purpose:

- Set broad context for your research;
- Convey research you have done;
- Describe projects you want to pursue in the future.

Effective Statements:

- Efficiently convey main points on first page for non-specialists
- When possible, state main results precisely.

Teaching Statement

Length: Usually 1-2 pages

Purpose:

Convey your attitudes, practices, philosophies about teaching.

Effective Statements:

- Are not generic.
- Help committee members envision the type of classes you have given and could give at their institution.

Note: Many schools are looking for inclusive classroom practices.

Diversity Statements

Length: Usually 1-2 pages

Purpose: Outline how you will contribute to an institution's approach to **Diversity, Equity and Inclusion (DEI)**.

Effective Statements:

- A statement of your perspective or values: Articulate your understanding of DEI within higher education
- Personal examples or experience: Provide evidence of your commitment to DEI by describing what you've done in the past
- Future plans: Explain what you will do as a faculty member to advance DEI

Application Materials: Edit, edit, and then edit some more...

- Make application easy and interesting to read. (Keep in mind hiring committees can be reading hundreds of applications.)
- Triple-check grammar and spelling!
- Get feedback from peers/mentors.

Application timeline (US)

August and onwards: make list of jobs (keep checking all year)

Late August (at the latest, hopefully earlier): contact letter-writers

Early September: draft research and teaching statements, update CV and website

Late September: finalize documents

Oct/Nov/Dec and onwards: apply!

- apply before deadlines-- some people read files early
- **contact people directly** (after application is complete)— hard but important!

Postdoc offers usually come Feb-May (some creeping into Dec and Jan), often by email.

Tenure-track interviews might be offered Dec-May. Offers might come with two weeks to decide.

International Applications

- EMS https://euromathsoc.org/european-job-boards
- CMS https://cms.math.ca/careers/

Key points:

- No well-defined job cycle
- No choice of date for job talk/interview
- The interview REALLY matters, more than your job talk
- Positions/salaries tied to a fixed national system

Congratulations!

Step 3: You have an interview!

Interviews

Most postdocs do **not** have an interview. A few will have a short phone/zoom interview: often for recruiting postdocs.

Three basic interviews:

- Phone/Zoom: usually 10-30 minutes
- JMM: Employment Center/other location: usually 15-45 minutes
- On-Campus: 1-2 days
  - job talk
  - many short meetings with individual faculty
  - usually meeting with dean/administrators
  - possibly teach a class and/or meet with students.

General Interview Advice

Prepare

- Research the institution, department & interviewers.
- Ask for the schedule for your interview.
- Have research descriptions: 30 second, 2 minute, 5 minute versions.
- Reflect on teaching: pedagogy, classes taught.

Don’t put yourself in a box

- talk about *research possibilities*,
- be *flexible about teaching practices.*

Keep in mind that you are also interviewing them

- Ask questions to show interest and to determine if this is the sort of place you want to be at! Does this school align with your own goals?

Be yourself!

The Job Talk

* Know your audience!
  - undergraduate talk / dept colloquium / seminar
  - ask your host what goals should be (e.g., impressing people vs communicating clearly)

* State your contribution early on in the talk.
* Show people outside your immediate area that you will be good to talk to/have around.
* Keep the talk very accessible, at least until the end.

* Practice!

After the interview

In all cases, after you have interviewed:

- Ask when you might hear back.
- Thank interviewers for opportunity.
- Send thank-you email to host (but maybe not everyone).

Congratulations!

Step 4: You have an offer!

General Advice

- Do not accept immediately!
- Ask around about salary, startup $$, other negotiable portions (initial teaching).
- Negotiate! Use other offers, use salary stats from Notices. This is one of the few times you have leverage. (Probably can't negotiate a postdoc offer, but if you have competing offers you can try.)
- Use this offer to see if you can get others!

Step 0: What you can do now!

For any position:

- Work hard on your math, prove the best possible theorems.
- Attend seminars, conferences, and workshops; talk to others.
- Apply to various summer schools if topics are interesting and important for your research such as PCMI/IAS, MSRI, Princeton WAM, … .
- Give research talks: attend and present at conferences (graduate student topology, JMM, but also local AMS Sectional, …).
- Meet potential letter writers (for both research and teaching!)
- Develop your CV.
- Build a well-organized, visually appealing website.
- Develop your teaching skills.

Additional activities to consider

- Understand the relationships between your field and other areas.
- Take advantage of pedagogy learning opportunities.
- Teach a variety of classes.
- Initiate/volunteer for a Directed Reading Program.
- Work on a research project with an undergraduate - does your school have a VIGRE-like project where you can do this easily? REU?
- Learn about diversity issues on your campus.
- Get experience in service activities: volunteer to organize events or do outreach activities.