The Job Process

SEC Geometry and Topology Workshop
2023
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)
- Through math departments (sometimes research grants)
- NSF Postdoc eligible to US Citizens, nationals, legally admitted permanent resident aliens.
- Responsibilities: Research, Teaching (0 to 2-2), Light service (seminar organization)

**Research Institution Tenure-Track**
- Typically at PhD granting institutions
- Prior postdoc almost always required
- Responsibilities: Research, Teaching (typically 2-1 or 2-2), Service
Main Academic Job Types in U.S. (continued)

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

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

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

Responsibilities: 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!
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

When to ask: At least a month before the first deadline

General:

- Talk/ZOOM with letter writers so they understand your accomplishments and goals.
- Offer to summarize your points in writing
Cover Letter

For post-doc or TT Research Position

- Usually brief.

- Letter can help direct file to correct person.

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, and service expectations?
Research Statement

**Length:** Usually 5 pages for postdocs; possibly shorter for PUI

**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:** Convey your understanding of, previous engagement in, and future commitment to diversity and inclusion activities.

These points can also appear in your cover letter, and teaching and research statements.

**Effective Statements:**

- Incorporate your experiences, knowledge, and attitudes about diversity, equity, and inclusion (DEI).

- Include future activities aligned with particular institution’s mission, goals, values and initiatives around 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:** draft research and teaching statements, update CV and website.
• **Early September:** make list of jobs
• **Mid-September (at the latest, hopefully earlier):** contact letter-writers
• **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
  - Consists of a job talk, many short meetings with individual faculty, and usually meeting with administrators. Possibly teaching a class and/or meeting 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.

During Interview

• 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?
• Try to relax and 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.

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

* 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, JMM, 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 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.