

# 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](http://mathjobs.org), but also

- AMS website ([eims.ams.org](http://eims.ams.org)) or Notices of the AMS
- Chronicle of Higher Education
- HigherEdJobs ([www.higheredjobs.com](http://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 have 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.