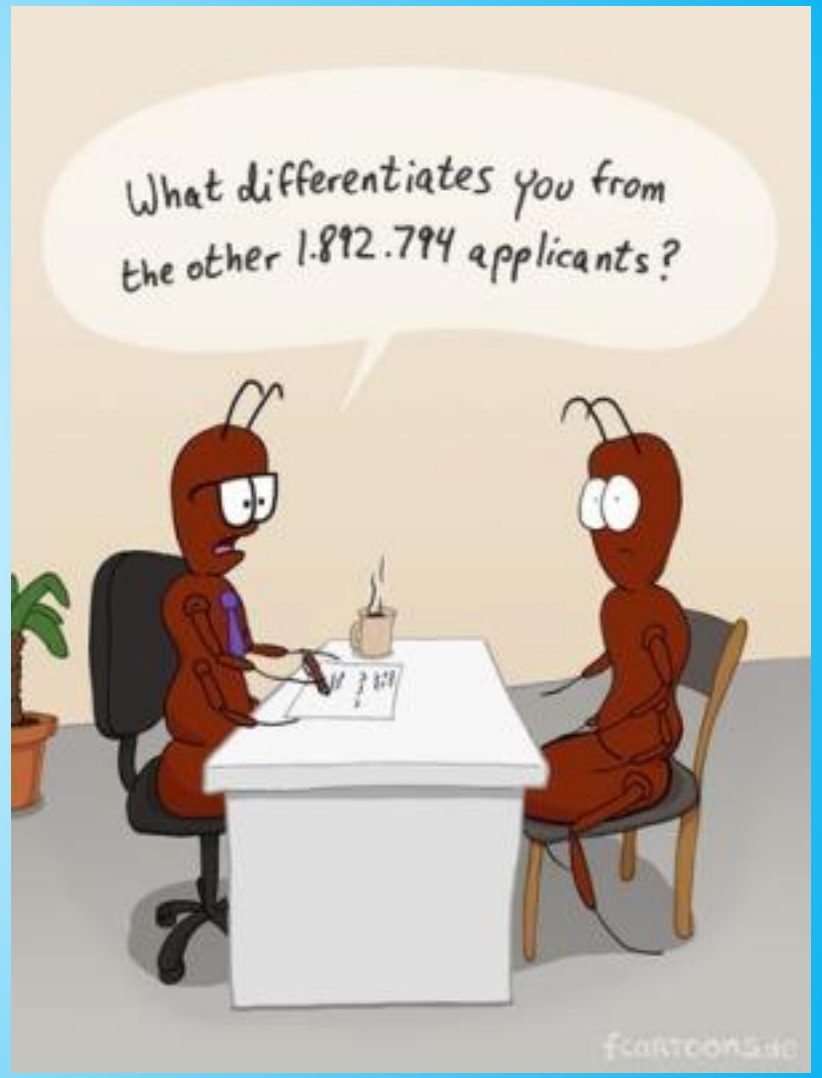
Some Helpful Tips for the Postdoc Application Process

Matthew Lapa

University of Chicago



UIUC Physics Careers seminar, 10/19/18

Outline

- Intro/Bio
- Overview of the application process
- Where and when to look for jobs
- Components of the application
- General advice
- Summary

Quick bio

- UIUC Physics grad student from 2012-2018.
- Studied condensed matter theory in the group of Professor Taylor Hughes.
- Went through postdoc application process in Fall 2017.
- Now a postdoc at University of Chicago (still doing condensed matter theory).

The postdoc application process

- Starts around August and can last until early the next year (could stretch as late as March). Most applications are due in the late Fall.
- Applications usually consist of:
  - CV and list of publications
  - 3+ letters of recommendation
  - Statement of research interests
- Sometimes there are formal or informal interviews (in person or online).
- May be slight differences in the process for experiment vs. theory.

(at least) two kinds of positions

- In theory it is common for a postdoc position to be associated with an entire group, for example the Institute for Condensed Matter Theory at UIUC.
- In that case you would be able to work with any professor in that group.
- The other possibility is for a postdoc position in which you work with (and are directly paid by) a single professor. This may be more common in experiment.
- I hear that advertisement for postdocs with a single professor takes place a little later in the process (January to February).

Where and when to look for positions

- Three great places to look:
  - https://academicjobsonline.org/ajo
  - https://jobs.physicstoday.org/jobseekers/
  - https://physics.illinois.edu/academics/graduates/blog/
- Academic Jobs Online is also a place to upload materials and submit applications. I submitted about 15 applications through here.
- It's a good idea to check AJO and Physics Today a few times per week during the application season to make sure you don't miss any new announcements.

Other ways to hear about positions

- Word of mouth
- From the UIUC physics department
- From your advisor:
  - Institutions that are hiring may send your advisor an email them to let them know that a position is available.
  - Ask your advisor to forward you these emails!
- Doing your homework.
  - Some institutions do not do a great job of advertising that a position is open. It is useful to make a list of places your are interested in and to check their websites regularly for any info or updates.

Applications that require nominations

- Some schools require a nomination letter before you can even begin the application.
- Usually the letter is due late summer or early Fall, so be on the lookout for these places.
- Some applications I know of that require a nomination are:
  - Princeton Center for Theoretical Science (PCTS)
  - MIT Pappalardo Fellowship
  - Harvard Junior Fellows (they only accept nominations by regular mail and deadline to receive those is usually in August)

CV

- Tell where you went to school and the name of your research advisor.
- List all of your professional activities:
  - Conferences/workshops/summer schools you've attended.
  - Talks you've given (including 10 min March Meeting talks!).
  - If you've refereed papers for any journals.
- Can also include info on scientific outreach or other community service.
- Some applications want publication list in CV and others want a separate file.

Letters of recommendation

- Usually need three of these (but can send more).
- Ask far in advance in case someone is unable to write a letter for you!
- Make sure to give your letter writers clear deadlines and follow up with them when time is getting short!
- Some letter writers will send a personalized letter for each different application. Others write one letter that you can send to multiple places.
- If you are very interested in one particular place, consider asking your letter writers for a personalized letter for that place.

The research statement

- A short statement about the research you plan to do as a postdoc.
- Usually 1-3 pages long. Some places will put a limit on how much space you can use. I found that 3 was the maximum allowed, and one place asked for no more than a page!
- Typically, your research ideas would be related to what you did as a graduate student (things you have expertise in).
- You are not obligated to actually do the work you write about in your research statement!

The research statement

- Can include an intro paragraph where you state your broad interests and say which professors at X institution you want to work with.
- Use some space (maybe up to 1/3) to describe the research you've already done/are currently doing as a graduate student.
- Use the rest to list a few problems you plan to work on as a postdoc.
- Try to explain why the problems you listed are important.
- Can emphasize or de-emphasize certain problems for each individual application.

The research statement

- Try to start writing the summer before the application season starts (i.e., a few months in advance).
- This is because it takes time to critically evaluate your own research ideas.
- Some ideas seem good at first, but then after a few weeks (or months), you realize there is some problem with the idea.
- It's a great idea to have your advisor and other experts read your research statement and give you feedback.
- Start early so you can edit gradually over a long period of time.

Some ways to get ideas for the research statement

- Check arXiv often to see what people are working on right now. It updates at 7 pm CST Sunday-Thursday!
- Browse the top journal websites (Physical Review Letters, Nature, Science) and read some of the recent articles.
- Talk to other grad students, postdocs, and professors to see what they are interested in.
- Attending workshops, conferences, and summer schools is another great way to see what people are currently working on (especially invited talks at March Meeting).

Advice for Skype™ interviews

- Prepare a few slides on your research (about 10 mins worth) to present during the interview. This will give you something to do if the interview is very informal.
- Make sure all technology is working on your end! (microphone, sharing screens, etc.)
- Refresh your memory about what professors at that institution are working on.
- For theorists: prepare for a question about the relevance of your work to experiments.

~~Networking~~ Talking to professors

- If there is a professor you are interested in meeting, who you might want to work with one day, can try this method to talk to them.
- If this professor will be at a conference you will be attending, can email them to ask about meeting for 10-15 mins to tell them about your research.
  - It helps if your research is related to theirs!
  - Don't ask for too much of their time.
- Don't think of it as networking. You are just telling them about your research, and you can see what develops from there.

More general advice

- Be on the lookout for announcements about workshops or summer/winter schools that you can attend. See if your advisor has heard anything about these.
- I hear that winter/summer schools are where a lot of people meet and get to know each other and form collaborations.
- Use a large excel spreadsheet to organize all of your applications. Put all relevant data here. Can share with advisor and letter writers to keep everyone on top of things.

Summary

- Postdoc application process takes place each year starting in the Fall and stretching into the early months of the next year.
- Applications require a CV, letters of recommendation, and a research statement.
- It’s best to start working on all of these things in the summer before the application period starts.
- Take any opportunity you can to talk to professors you may want to work with one day.

Questions?