So You’re Applying for a Postdoc?

Some Collected Experience

By Jen and Brett
Timelines, Links, Types of Postdocs

● Application season opens in ~November and can go through the summer

● Links
  ○ AAS Job Register: https://jobregister.aas.org/

● ‘Prize’ Fellowships: Hubble (inc. Sagan/Einstein), Jansky, NSF, …
  ○ Yale/Caltech/Princeton/… have their own prize fellowships
  ○ 100% your science

● Individual PI postdocs usually include some combination of time for your own research as well as for a (funded) project

● ‘Service’ or ‘institutional’ postdocs, typically at observatories, are usually for a combination of your own science + institution-specific duties
How to Strategize Where You Apply

- There is such a thing as too many; it takes more time than you think to apply

- It’s OK to have boilerplate application material (esp. regarding research), but each application should have a degree of personalization to the job

- Apply where you would love to go. Don’t sell yourself short.
  - Is the project interesting? Is the location at least acceptable?
  - If you’ll be miserable, it’s **not worth your time**

- Take advantage of places where you or your letter writers have contacts

- Prize Fellowships come first and take more time: prioritize these and put your best research idea forward. Start writing at least 3 months in advance.
  - Be aware of the idiosyncrasies of some proposals. The NSF, for example, is a nightmare of absurd paperwork; it’s manageable if you’re expecting it, and crushing if you aren’t.
Parts of a Postdoc Application

- Cover Letter
- Curriculum Vitae (CV)
- Research Summary (What you have done)
- Research Statement (What you want to do)
- Letters of Recommendation
- Occasionally: Inane Bullshit. (See Also: NSF)
Cover Letter

● Take this part seriously; your competitors will. It sticks out if you skip this.
● WRITE TO THE JOB ADVERTISEMENT
  ○ Sometimes HR has the job of first filtering out irrelevant applications
● Show that you’ve actually given some thought to why the hiring committee should take you seriously as a candidate for this position
  ○ A standard cover letter reads like a standard cover letter
  ○ If you have a personal tie to the location, it’s okay to say so
  ○ If it is the only job you really want, it’s okay to say so
● This is the only chance for them to hear *your* voice as they decide who to put on a short list; it can be a strong point in your favor to help you stand out
  ○ Good place to point out specific aspects of the position that make you especially qualified for it and want to work there
  ○ Good place to reinforce specific pieces of your CV that are very relevant to the advertisement (plus alignments with diversity or other extra initiatives)
Curriculum Vitae

- Extremely situationally dependent - see examples!

- Distill what is important

- Apply for funding as a graduate student
  - NSF GRFP, Reber, Jefferson, VSGC
  - Observing Time w/ Money (Hubble, SOFIA, JWST, Spitzer)

- Example Sections (YMMV)
  - Education
  - Research Experience
  - Observing Experience
  - Teaching, Mentoring, Outreach
  - Awards
  - Academic Societies
  - Talks/Posters
  - Non-Scientific Pursuits
  - References
  - Publications
  - Service
Research Summary

- Summarize your research accomplishments in a results-oriented way:
  - **Good**: I found correlations between interacting dwarf galaxies and enhanced star formation
  - **Meh**: I studied optical imaging of interacting dwarf galaxies

- Explain clearly your technical skills related to modeling, data reduction, etc and how they contributed to the science result

- (Context Dependent) Reference the job requirements and/or other research ongoing at the institution

- Include a one-paragraph Executive Summary at the top under the title

- Don’t be afraid to use bold face (sparingly) to help drive in take-home points
Research Statement

- Clearly identify a *topical* problem, and connect it to the *big picture*
  - You are speaking to a wide audience - you may need to convince a pulsar person that your astrochemistry work is important (to astrochemistry)

- Lay out clearly what you will do to address the problem
  - This does not mean *in detail*
  - If you already will be bringing observational data, point this out!
  - Highlight the skills you bring (uniquely?) to answer these problems

- Reduce walls of text - use figures to tell your story whenever possible

- Make your document beautiful (use LaTeX)

- Cite appropriately but not excessively
Letters of Recommendation

• Start building relationships with potential letter writers now

• Ask a variety of people, so that each letter speaks to a different skill set

• Help your letter writers
  ○ Remind them of the good things you did that they can speak to
  ○ Let them know if there’s something specific to an application they should write about (i.e. this job involves algorithm development, so talk about the code I wrote for you that saved you six months of work)
  ○ Provide a spreadsheet with basic info (deadline, submission vehicle, link to job description)
  ○ Remind them reasonably often and give them as much lead time as is feasible

• A good letter takes a lot of time to write and a lot of effort. Ask nicely, thank profusely, continue to build bridges for the next time you need a letter!
How to Give a Good (Job) Talk

- Be specific about your role in the project, without gory details
  - Hit your creative process highlights (key decision points) then just get to the results/insights
  - Use ‘we’ when appropriate, and use ‘I’ when it was your decision/result/insight. This stands out to an audience that hears and reads ‘we’ every day.
  - Highlight portions of the work that speak to relevant skills for the job

- Demonstrate your diverse capabilities
  - If you’re presenting radio astronomy results, but can display and talk knowledgeably about complementary optical results in the literature, and how your results inform or enhance those - that’s a big plus!

- Do your homework: who is going to be in the room? What do all those papers you cite actually say? Was there a new paper recently on astro-ph?
Inane Bullshit

● When is the application due
  ○ For NSF, if you’re late by a minute, you can be totally excluded, zero-tolerance

● Will the system refuse to send requests to letter writers until you have submitted your application in full?
  ○ These same systems often have the due date for writers the same as the application - meaning you give your writers no time to submit!

● Is there a file size limit?
  ○ Brett once had to spend two hours getting a ten-page proposal under a 2 MB limit because that’s still a thing, apparently

● Some applications want transcripts, some want you to enter your coursework by hand, others want to know every person you’ve collaborated with in the last 5 years.
Final (Misc) Tips

● Create a good website so you have a strong online presence (github sites are free, and have enough bandwidth for your purposes)

● Curate a Google Scholar profile - free citation tracking!

● Take advantage of every opportunity to give talks:
  ○ TUNA Talks @ NRAO
  ○ Subfield discussion groups (Astrochemistry / Galaxies / Exoplanets)
  ○ Visit a friend at another institution ask to give a talk while you’re there
  ○ Apply for talks at conferences, rather than posters

● Remember: it’s not you, it’s them. Landing a postdoc takes skill and effort, but also a fair bit of luck. Be prepared for a lot of rejection and take extra time away from work to decompress. Don’t check the Rumor Mill hourly.