

POSTDOC SEMINAR

JOB HUNTING

- It is never too early to start thinking about your job search
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1 Objective

When you start your postdoc, you should be thinking about the TV ad: “where do you want to go?”

- Academia
 - small college
 - mid size school
 - Ph.D. granting institution
- Industry
 - math related (insurance, statistical analysis, etc.)
 - management consulting
 - software development

Basically, the things you do during your postdoc (i.e. summer internship with a company, NExT project/curriculum development for a summer VIGRE class, or a summer school/program, or just good old fashioned research) will make you a stronger candidate for certain types of jobs. For those interested in Research University jobs, the AMS guide to grad fellowships tells you about the size and success rates of Ph.D. programs. Some of the articles on the websites listed in section 5 provide good tips on the non-academic job search and the transition to industry from academics.

2 Build Bridges

After completing the Ph.D., many budding academics continue with the research program of their dissertation. This can be fine, but it can also lead to a dangerous narrowness. So it is important to branch out in your research, and to *make connections* with other researchers. You should:

- attend talks
- give talks
- post your research on the arXiv

– read the arXiv

When you attend a talk, don't just listen, but actively search for ways you could apply your techniques to the speakers problem; or for ways to apply techniques of the talk to your work. Many (most?) collaborations begin in exactly this way. Finally, if possible it is a good idea to also make connections outside your immediate area. For example, a topologist working with an algebraist has a chance to learn lots of new methods and techniques. This kind of "cross-pollination" often produces results which would not have been possible without multiple perspectives on the problem.

Bottom line: talk to people about your work, and ask questions about theirs.

3 Timetable

Applications for academic jobs go out in October of your final year (n).

- This means you need to have publications out for refereeing by May/June to have a good shot at including them on your CV as accepted.

Most schools will not hire in two consecutive years. This means you should strongly consider also applying in year ($n - 1$) to places you really like. An added benefit is that applying forces you to update your CV/research proposal/website; you'll also get more practice giving your job talk and word-of-mouth exposure that may help you in year n . And just maybe, you'll get that dream job early and be able to relax for a minute!

4 Publications, Grants, Service, etc.

As a postdoc, the majority of your time should be spent on research. However, there are other activities which are important and which will show up on your CV.

- Publishing

Where should you be sending your papers? Everyone knows *Annals* and *Inventiones* are great, but 99.9% of papers are better suited for other venues. One question is whether to publish in a specialized journal (i.e. *East Texas Journal of curves of genus 6 on K3 surfaces in characteristic 7*) or in a general journal. There are pros and cons to each. Specialists in your area may know that *ETJ* is highly selective; but if you apply to a school without specialists in your area (especially true at smaller institutions) folks may have no clue about the journals prestige. On the other hand, most folks know names like *TAMS*, *Math Annalen* (very good) or *PAMS*, *BLMS* (shorter papers, very respectable). So a good compromise might be to publish some papers in general journals, and others in specialized venues. The science citation index (available thru the TAMU library) publishes journal rankings (take these with a large grain of salt; but they give some idea). The best way to decide where to send a paper is to consult several senior folks in your area.

- Grants

Grants are great if you can get one; but they can be very time consuming to write. If you're going to apply, it is good to find a co-PI who has been thru the process before. At the very least, you should ask some senior person in your area for a copy of a successful proposal. Having a template can be a *BIG* help.

- Service

It is important not to get too wrapped up in non-research activities. On the other hand, there are things you can do which are both fun and which have a payoff in the job search.

- Organize (or co-organize) the seminar in your field. This is a great way to meet folks, and not a huge time sink.
- Organize an AMS special session. Same as above—all you have to do is slot the speakers. Careful about general conference organization; unlike the AMS sessions you have to worry about all the administrative details, which can be a killer.
- Run or assist with a VIGRE class in your area.

5 Online Stuff

There are a bunch of articles online about the job search process, which you can see at:

<http://www.ams.org/employment/job-articles.html>

Oddly, that link does not have a connection to the excellent article:

<http://www.ams.org/employment/academic-job-search.html>

Most applications ask for a CV, research plan, and teaching statement. You can find some samples (successful at TAMU!) at:

<http://www.math.tamu.edu/~schenck/cv00.tex>

<http://www.math.tamu.edu/~schenck/vita.sty> (needed for the cv file)

<http://www.math.tamu.edu/~schenck/rprs00.tex>

<http://www.math.tamu.edu/~schenck/teach00.tex>

It is a good idea to have a decent website up (with you pubs and preprints on it), many folks do look at websites (warning: some personal stuff is ok, but too much can make it look like you want a job in web design instead of mathematics!).