

Questions from UTK Math Grad Students Regarding Job Interviews – October 2024

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First, there is a great summary of advice from Past Presidents of the Society for Mathematical Biology compiled in

Roberts, Paul A. 2024. Advice to a Young Mathematical Biologist

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There is a section on interviews in my talk given to Mathematical Biosciences Institute Postdocs (October 2006) on “My Notes on Applying for a Job, Haggling for a Job and Keeping a Job” posted at <http://lgross.utk.edu/gettingjobs.postdocs.mbi06.txt>

1. Can you explain the different types of interviews that one might encounter while on the job market (for example, phone/Skype, at JMM, on-campus with math faculty, on-campus with administrators)? How should one prepare for these different types of interviews?

Typically now, for many academic and non-academic (including government) jobs, there is an initial virtual interview. Sometimes you will be told who will be on this and sometimes not. Often these are required to follow a very specific script by HR rules. You will not be told the script beforehand but they usually have some time for you to ask a question yourself at the end, so prepare a couple of short questions to ask. There may be several of these virtual interviews – sometimes industry positions will be offered after just virtual interviews (perhaps as many as 4-5 different ones). It is not uncommon for postdoc offers to be made without an in-person interview.

For full-time academic positions, an in-person interview (which may have been preceded by an in-person short interview at a meetings such as JMM) is expected. You will be given an outline for what is expected of you during the interview such as a research talk, a teaching demo/class talk, meetings with students (grad and/or undergrad), meetings with faculty, and meeting with the Head and perhaps a Dean.

2. How might interviews differ if you are applying to different types of jobs (for example, post-doctoral positions, academic jobs at large vs. small schools, industry, with HR)?

For postdocs, these are typically run by the faculty member who has the funding. You will likely just be interviewed by them and their students or other postdocs, and there are usually not a lot of HR rules. Industry positions vary greatly but often have rather strict HR rules (unless it is a small start-up). So ask what the protocols are if they are not described to you in the invitation.

3. What is, in your opinion, the best thing to do BEFORE an interview to prepare?

In all cases, prepare, whether it is a virtual or in-person one, by looking over in some detail the people in the department/company, with particular emphasis on those you might collaborate with or report to. But don't limit yourself to those in your immediate field of expertise. Consider possible interactions you might have with the strongest research groups in the institution whether they are in the unit you will be based or not.

4. What is, in your opinion, the best thing to do DURING an interview?

Make sure you know the schedule of who you will be meeting, know who they are beforehand from google, and in particular make sure you look at the info on the members of the search committee and the dept head.

Let your host know well in advance if you have any dietary preferences and/or special needs assistance.

Act interested throughout the interview (e.g. don't assume anything about whether you are likely to get an offer or not - the fact that you are there puts you in the running). Don't ask questions about your competitors for the position (if someone volunteers this, don't dwell on it or ask them to dwell on it).

When you meet faculty, assume they know nothing about you. Remind them of your interests and try to tie these into theirs if you know theirs and if not, ask them. Your job in personal interactions is to make it clear to them that you will be a useful colleague to have around. It is also to make it clear that you have expertise that the department needs and you really are an expert in your chosen area.

When you meet students, graduate or undergrad, get them to talk about their own interests and listen to them. Make suggestions as appropriate, but don't be too strong in this regard and don't be critical even if what they are doing appears trivial. Be positive.

You'll be likely meeting some administrator during an interview. Be prepared with questions for them. If there is a lapse in conversation (e.g. you have nothing in common) get them talking about themselves.

For a research talk, remember that the attendees will mostly not be in your area of expertise. So start off stating why the area and questions are of interest, how you got involved in them, and what the long-term view is of these questions (e.g. make it clear that you have a overview that is broader than the detailed topic of your presentation). Start off so that all grad students in the audience, independent of math area, understand what you are doing, then elaborate and get more detailed. By the end it should be clear to any attendees that (a) this is really interesting stuff (b) you have done something really new (c) there is still more to do and (d) you are the best person around to carry out more work in this area. Be enthusiastic. Smile a lot. Don't go on too long or too short - be certain beforehand exactly how much time you will be allotted. Get in the room early to set up any necessary technology. Speak clearly, don't mumble and don't yell.

Make sure you go over the presentation beforehand with an audience who can critique you (e.g. include some students/colleagues who are not involved in the details of your work) and encourage them to be critical.

If there is a teaching presentation, be sure to have this carefully prepared with a lesson plan beforehand. Have someone critique this talk as well, watching particularly for clarity of expression, chalk board usage and clear announcement.

In conversations with the Head, you have no obligation to inform them about other offers/possible positions, but do so if you think this will help your situation (it may or may not - depends on circumstances). Go into the interview with a set of minimum requirements but do not state these. They should tell you what the options are, salary range to be expected, startup, moving expenses, summer funding, etc. Typically this will be gone over at an interview with the Head, in which they will also give you a tour of possible office space.

5. What is, in your opinion, the best thing to do AFTER an interview?

Exit interview - this may be with the search committee or may be with the Head. Be prepared for them to ask if you are still interested and to ask you why you are particularly interested in the position, what if anything happened during the interview to reinforce your interest.

Make yourself a list, while it is fresh, of what you liked about the position and what you disliked. Make a list of any further questions or requests you might ask if they come back to you with an offer.

Be sure to send emails of thanks to those involved in setting up the interview. Do this even if you have no longer any interest in the position – it will help with networking long-term.

6. What is the biggest mistake one can make during the interview process?

Not treating respectfully all you interact with. Be sure to thank the staff who may have setup the logistics for your visit and anyone you interacted with during the interview or beforehand in setting it up.

7. If you could give your former self any advice before going into your first set of interviews, what would that be?

You know more than they do about your research – make it clear without being a jerk about it that you are the world's expert on this topic and you will expand on your work to date to become very successful.

8. What was the most difficult question that you have been asked during an interview and what was your response? Would you have responded differently and how?

How I would manage people who report to me – what are my methods for dealing with difficult people. There is now a lot of advice around for this topic and I would respond with some of those methods.

8. What is your “go-to” question to ask the interviewers during an interview?

Where do you want to be 5-10 years from now and what can our institution do to help you get there?