
Preparing for a Job Interview

Disclaimer

- This is my own VERY Personal Point of View
 - Don't take this as gospel - but as a starting point.
 - Talk to other people and form your own opinions
 - Most of what I say will be obvious

 - My goal is for you to avoid the dumb mistakes that take you out of the game before the game even starts!
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Solving the Puzzle....

- What qualities does an ideal physicist possess?
 - Ability to manage people and projects
 - Ability to perform original and important physics analysis
 - Able to solve Technical Challenges with grace and ease
 - Each hiring committee will eventually have to come to grips with how to weight each of the above...
 - Don't forget personality - or lack there of! It matters
 - Committees are not necessarily after the smartest person - but that they want that best that they can find. AND This person has to be someone they want to work with for the next 30 years !
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How to Apply

- Get the word out that you are looking for a faculty position - lots happens in this field by word of mouth
 - Check the Ads in Physics Today
 - The experiments keep a list... - check it
 - http://www-cdf.fnal.gov/jobcorner/hep_faculty_job.html
 - If there is a place that you really want to be at - write the chairman a letter and follow up with a phone call. Be aggressive
 - Whether you should be "picky" or apply for every job under the sun is a very personal choice
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How to Apply (2)

- Call the contact person and ask him about the job
- ask him what they are looking for
 - Read the ad and follow the directions
 - How many references
 - Do they want the letters sent or just a list of names?
 - When is the deadline?
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Preparation

- CV
 - Cover Letter
 - Expression of research interest
 - Publication List
 - Talk

 - Start early preparing these documents - as in NOW!
 - Keep them current during the year as you make additional contributions
 - Do NOT make job hunting your full time job. STAY PRODUCTIVE
 - You will be less nervous
 - You will have more things to talk about because you are working
 - Your visibility within the collaboration will remain high
 - Be disciplined - work on analysis during the day and job stuff in the evenings/one weekend day or whatever arrangement suits you so you can keep things separated!
 - Read enough to know what is going on in our field and be prepared to talk about it
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CV and Cover Letter

- CV should not just be a list of accomplishments.
 - Give enough detail and try to make it interesting.
 - Someone should be able to tell what you **ACTUALLY** did by reading it
 - Get comments on it from people you trust
 - Cover letter - **IMPORTANT**
 - Tailor it to the department you are applying
 - Talk about what you bring to the department and what features of their research program interest you
 - Emphasize again the highlights in your CV as well
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The Talk

- Seminar vs. Colloquium!!
 - Know what type of talk they want you to give -- ASK
 - Some schools may even want both
 - Colloquium
 - Keep it simple
 - Can you teach a difficult subject to the non HEP community
 - Be enthusiastic
 - Take the time to really explain the plots you do show
 - Tell a story!
 - Seminar
 - It should be something you did
 - It should be technical but not overly technical - pick something like a systematic or acceptance and take them through the detail to show you know it - but NOT everything
 - Explain the plots - audience is HEP but doubtful in your specialty
 - There should be a "common thread" throughout
 - Once your talk is prepared, call people and volunteer to give a seminar at their institution - PRACTICE IT!
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Letters

- Letters are the single most important part of your application package. Without great letters, you will never get a chance to move to the next step!
 - Given the importance, you need to pay attention to them!
 - All places require letters - 3-5, some require more
 - Come up with a strategy for who would write one on your behalf - get 6 names and prioritize them in your own mind
 - What makes a good letter writer?
 - The person who wrote it can speak in detail about you and your work
 - That person thinks highly of you and your work
 - Letter writer is well known in the field
 - Letter writer knows how to write a good letter....
 - Most letters should reference your most recent work, not the work you did as a graduate/undergrad student
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Letters - Part B

- People to ask
 - Boss/advisor
 - People familiar with your analysis, a god parent for example, other faculty that are paying attention in the physics group in which you work
 - Select people from the most recent part of your career, one is more than enough from your graduate work
 - People you may also want to ask
 - Spokesperson - typically busy, write lots of letters and often times write "cookie cutter" letters that are neither helpful nor hurtful - how well do they really know you?
 - Physics Convener/Coordinator
 - Lab Personnel - may not be used to writing the type of letter that is required
 - People you don't ask
 - Mom -- obvious
 - Peers - their letter does not carry sufficient credibility/weight
 - Friends - puts them in an awkward situation
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Letters - part C

- Help the letter writer
 - Give them names, addresses where you want letters sent and give them sufficient lead time to do your letter justice
 - Make it clear when the letter is due
 - Give them a copy of your CV
 - Don't assume they know all about you - prepare a one page list of your most significant accomplishments/strengths that they might use in their letter - don't make them search those out from your CV
 - Sit down with your letter writers and talk to them about yourself.
 - What are you looking for
 - What kind of career do you want
 - What is your "ideal job"
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Letters - part D

- It is helpful to get an early look at your letters - and to adjust the list according to what is written
 - If you have a weak letter, you want to get it out of the packet as soon as possible
 - Easier said than done....
 - Recommendation
 - Apply early to a place where you may have a friend on the committee, and ask that person to read your letters and get feedback
 - Ditto for your boss - it may be easier for him to get this info
 - Target a place where you have an inside track even if you have no interest in that job to get that important look.
 - If you can't - its not the end of the world but it does help
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Appearance is Important

- You have invested 4 years in college, 5 years in graduate school, and 3+ years as a post doc.
 - Shouldn't you invest in your job search?
 - **Gentlemen**
 - Day 1, suit and tie
 - Day 2, sport coat and slacks (again a tie!)
 - **Ladies**
 - Business-like and smart
 - Err on the side of conservative
 - Spend the \$\$\$ and get items that fit well (.e.g. altered properly)
 - Haircut, belt, shined shoes, matching dark socks, and clean finger nails are NOT optional
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Once you get "the call" - its time to game plan

- Get on the web and check out the department
 - How big is it
 - What do they do
 - What are its strengths?
 - Then look at the HEP group - theory and expt.
 - Talk to people here at FNAL who are familiar with the department
 - If you get your interview schedule ahead of time, find out what you can about your interviewers. What are their physics interests,
 - READ! Be broad. Understand the issues facing the field. Have an opinion. Be consistent. Most of the questions asked will not have a "correct" answer.
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Questions you may hear...

- Tell me about yourself....
- Why are you interested in particle physics
- What are your short, medium and long term career goals
- What are you going to bring to this group
- How are you going to secure funding
- What are 3 words that best describe you
- What is your biggest weakness and what are you doing about it
- What achievement are you most proud of
- What motivates you
- Who is your hero and why
- Where do you think the field is heading
- What direction should Fermilab head in
- What do you think about X (RIA, NLC, NOVA,...)
- Who is the best post doc on the job market right now?

I have a list of all the questions I have ever been asked - I will send you that list to you if you are interested

Game Day

- Stay calm and relaxed - after all, you get to spend an entire day talking about your favorite subject - YOU!
 - Have fun with it! It will show!
 - Bring a few copies of your CV and have backup of your talk (laptop + memory stick)
 - Take care of the simple things
 - Shake hands (firmly)
 - Look people in the eye
 - Listen and pay attention - they will be selling themselves at least as much as they will be asking you to sell yourself.
 - Remember to smile!
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Interview Pointers

- Interview usually means lunch and dinner with some portion of the committee.
 - This is *STILL* part of the interview - don't get too relaxed and do *NOT* drink too much - save that for the hotel room later!
 - Have some prepared questions for them
 - Teaching loads
 - Travel guidelines - are they used to HEP types?
 - What is the group's/department longer term hiring plans and strategic direction
 - Tenure? - I typically stay away from this, as I do salary. Those can be answered once you get the job offer!
 - The Dean
 - His (or Her!) role in the process differs from place to place.
 - Impress him/her! If you get the offer -(s)he is who you negotiate with for start-up funds. Best to start off on the right foot with this individual
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More Interview Pointers

- Your experiment - know what's going on!
 - How is the accelerator performing
 - What was done during the long shutdown
 - How is the COT performing
 - What fraction of the Silicon is working
 - How much Luminosity has CDF acquired?
 - What are the expectations for delivered lum in 05, 06, 07
 - Its embarrassing to not know this stuff!
 - Practice
 - Ask someone to interview you
 - Talk to last years success stories and ask for advice/pointers
 - Interview skills like analysis skills require work in order to be good
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Follow Up

- Ask what is the next step is - BEFORE you leave
 - Send a written thank you note the next day - email is fine these days...
 - They may ask you to do some homework - DO IT!
 - Typical example would be to prepare a start-up package budget
 - Be Patient
 - Don't keep calling for progress/status reports
 - If you haven't heard by the agreed upon date in bullet number 1, go ahead and call
 - If you are not a finalist after the interview, it is ok to ask why - where did you fall short, what could you improve, what experience are you lacking...
 - Not everyone is comfortable telling you this, and you may not like the answers but you need to hear it.
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For Students looking for Post doc's

- Decide what experiences you are lacking in your graduate student career and look for a post doc that can give you those
 - Don
 - Ignore institutional names and salary - in the long run, neither matter
 - Look for a place where you feel comfortable - with a boss that you WANT to work with.
 - Its all about relationships!
 - When you are interviewing - ask where their previous post doc's are now...
 - Do they have a record of placing their people
 - Past performance does not indicate future success (and vice versa) but...
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Feedback from this year...

- Talks are far too technical
 - Seminars are written as full status talks, and colloquia are seminars!
 - Just because they are HEP does not mean they do your measurement for a living
 - Too much CDF Slang in them
 - Make them much much simpler!
 - Missing the simple questions
 - Expect to get a lot of questions where you are asked to extrapolate Tevatron experiences to LHC.
 - B tagging in a high lum environment
 - Triggering as luminosity increases
 - Extrapolating jet energy scale across detector boundaries
 - Impossible to answer if you don't know the current status!!!
 - Too relaxed 1 on 1
 - Just because you are current interviewer is someone you know well from CDF - it doesn't mean you can relax and gossip - you have a job to do!
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More Feedback

- Each 1 on 1 interview - have a game plan. What points do you want to make with that person no matter what? Make them!
 - Dealing with your future plans
 - People very comfortable talking in detail about their next CDF measurement
 - Everyone wants to discover the Higgs at CMS or ATLAS
 - Very little meat in between on how you build a group and position it so that it is ready for the higgs discovery
 - Lack of familiarity with LHC
 - How many magnets are installed - how many do they install/day and thus when will they be finished?
 - What is the schedule
 - What are the strengths of CMS and Atlas detectors
 - What are US groups doing on each expt?
 - Read the physics TDR's.
 - Come up with a game plan on how you and your group will get plugged in and making a difference?
 - Will you utilize the LPC?
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Final Feedback

- Read the job advertisement and know what they are looking for.
 - IF it is a CMS job - don't have a plan on doing CDF physics for the next 4 years
 - OK to say that you are concerned about tenure and want to do X - but if it says CMS or ATLAS full time, they mean it!
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Dealing With Rejection

- Getting a job means solving a complicated puzzle.
 - Once you make the short list, they are very interested. From that point on - it's a "beauty contest"
 - Departments are trying to evaluate whether you are a good "fit" or match
 - Don't take things too personally
 - Remember, you WANT your colleagues to get jobs too - otherwise it will be pretty lonely
 - ASK yourself the following question
 - "Am I doing the right things to be a good fit somewhere....?" If not - CHANGE!
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