Forum on Career Development

PHENO 2018

Sally Dawson (BNL): Part 1, How to land a post-doc job
Keith R. Dienes (University of Arizona): Part 2, How to land a faculty job
How to pick a research topic

• Most important: you should be interested in the topic
  • You will be spending a lot of time on it

• Your advisor (mentor figure) should think the topic is interesting

• Get in the habit of skimming the arXiv to see what topics people are working on
  • If absolutely no one is working in a general area, you should think carefully before jumping in

• Should you pick a research topic by looking at the rumor page to see where the jobs are?
  • NO, NO, NO
Are you ready for a post-doc?

• If you don’t have at least 2-3 papers in refereed journals, the odds of obtaining a good post-doc position are slim

• You should have given a few talks outside your institution
  • Talks are important
    • Many places to give contributed talks (PHENO, APS April Meeting, DPF, smaller workshops). Send email to organizers if in doubt (as early as possible)
    • Often there are funds for graduate students and post-docs. Don’t be shy about asking
  • Talks give you exposure to senior physicists (take advantage of this!)
  • Make sure your talk has a simple and clear point
    • All those details get lost in a short talk!
    • Tell me why I should care about your results

• There are many interesting jobs outside academic research....
The Application

• Jobs are advertised in AJO
• Many jobs advertised via email to senior physicists
  • Ask senior people to forward ads to you
• Check lab web pages for information
• Many prestigious places [CERN, Miller, Pappalardo, PCTS, Junior Fellows...] have very early deadlines
• Don’t waste people’s time by applying places you wouldn’t go under any circumstances
• No matter what the ad says, have your application complete by Thanksgiving
  • Groups start reviewing applications in early December
The Application

• Cover letter
  • SHORT
  • Should contain 1 or 2 sentences describing the area you are working in
  • Should list your current institution, your advisor’s (or mentor’s) name, expected graduation date (or when your current post-doc ends), and names of letter writers

Each year I read around 200 applications. Don’t waste words on things that don’t matter (like the cover letter)
The Application

• **CV** should contain
  • Your professional address and email, citizenship
  • Your academic history including undergraduate degrees
  • List any relevant employment, military service, or other reasons why there are gaps in your academic time line
  • List relevant summer jobs
  • Talks given outside your institution (Title of talk, title of conference or occasion for talk, date, place)
• **Activities that show your involvement in your department**
  • I want to know that you will be involved with our group if I hire you!
• Optional: Computer languages, languages spoken, conferences attended, teaching experience

Remember: don’t waste words
The Application

• List of letter writers and their contact information (include email)
• You need 3 letters
  • For graduating students, it is sometimes difficult to find 3 letter writers if you are in a small place
  • Think ahead– talk about physics with member of your department, find occasions to explain what you are working on
  • If I know the letter writer, I take it more seriously
    • Interact thoughtfully at meetings like PHENO, TASI
• Go to seminars, colloquium, and interact
  • I look for people who “make things happen”

For me, the letters are the most important part of the application
The Application

• Publication list
  • Include titles and co-authors (for theorists)
  • Experimentalists should pull out papers they contributed to and include a brief description of their contributions

• It’s ok to include work in progress with expected completion date

• Research statement
  • NO MORE THAN 3 PAGES!!
  • Explain what you have done and your general plans for the future clearly
    • Avoid jargon and buzzwords (I may not be working in exactly your area)
  • You need to catch my interest in the first paragraph (before I go on to the next 200 applications!)

EVERYONE SHOULD HAVE THEIR APPLICATION PROOFREAD BY SOMEONE WITH OUTSTANDING ENGLISH LANGUAGE SKILLS!!
No silver bullet, but...

• Talks and letters are critical
• Give letter writers evidence that you participate in the life of the department
• Keep your application brief and to the point
• Make it easy on the letter reader—double space, reasonable sized fonts, bullets, short paragraphs...