Job Search at Fermilab

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My Background

- BS, University of Basel (Switzerland), Astronomy, 1992
- MS, University of Heidelberg (Germany), Physics, 1997
- PhD, University of Illinois, Particle Physics, 2005
- Postdoc, University of Virginia, 2005 – 2011
- Associate Scientist, Fermilab (Technical Division), since August 2011
Applying to Fermilab

• Advertised in various places:
  • SPIRES
  • DZero Jobs mailing list
  • [HEP Rumor Mill]

• Main employment page:
  • https://fermi.hodesiq.com/
  • Select “Area of Interest” → “Scientific”

• Fellowships:
  • Peoples: http://www.fnal.gov/pub/forphysicists/fellowships/john_peoples/index.html
Associate Scientist Positions

- Entry level to permanent track
- Initial contract for “3 year term” or “5 year term”
- Promotion to position “without term limit” in 5th year
  - Legalese: No tenure at Fermilab, but appointments “without term limit” …
  - Assoc. Scientist → Scientist I
- Within a division: AD, CD, PPD, TD
- Often targeted for a particular technical skill:
  - “Develop magnets for Mu2e”, “Muon Collider R&D”, “Superconducting RF”, ...
“Lab Job” vs Research Fraction

• Associate Scientist positions have a research fraction:
  • Conduct self-guided research as part of a Fermilab project

• Lab Job vs Research Fraction:
  • 50% vs 50%, 66.6% vs 33.3%, 75% vs 25%
  • Discuss as early as possible
  • Research project closely related to lab project is an advantage
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- “You have a 50% research fraction, but the lab gets the first 40 hours each week” - attributed to Bob Wilson
University “Equivalent Ranks”

- **Associate Scientist** (including Wilson and Peoples Fellows), term limit
  - Tenure-track **Assistant Professor**
- **Scientist I**, no term limit
  - Tenured **Associate Professor**
- **Scientist II**, terminal rank for most
  - **Full Professor**, terminal rank for most
- **Scientist III**
  - **Distinguished Professor**
Other Scientific Positions

More focused on important technical work
Usually with no/smaller research fraction

• Applied Scientists
• Materials Scientists
• Applications Physicists
• Computing professionals and engineering
  • Many physicists in these positions
What is the lab looking for?

- 3 categories are important for the tenure track:
  - **Science**: scientific achievements/contributions
  - **Technical**: depth of technical knowledge
  - **Leadership**: management skills

- Scientist: all 3 above threshold and excel at 2

- Applied Scientist and Applications Physicists:
  - Allowed to be weaker
  - Many are actually great in all 3 categories; they just got caught in the numbers game
Hiring Process (1)

- Hiring committee: 5-8 people
- Evaluation of CV and letters:
  - Send letters even if they are not explicitly mentioned as a requirement
- The Interview
  - Takes 1-2 days
  - Presentation to the committee (public or private)
  - 1hr 1-on-1 interviews with each committee member
- Committee votes:
  - Recommends candidate to director
Hiring Process (2)

• Be patient!

• Example Timeline:
  • Application: December, 2010
  • Invite to interview: March, 2011
  • Interview: April, 2011
  • Director approved: June, 2011
  • Accepted: June, 2011
  • Start: August, 2011
Hiring Process (2)

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  - Start: August, 2011
- Don't hesitate to contact hiring committee to inquire about status of your application!
Random Information

• Interview:
  • Do your homework about who is interviewing you
  • Org charts are your friend: https://orgchart.fnal.gov/orgpluscharts/fermilabcharts.htm
  • Know your own CV
  • Commonly asked question: “Why do you want to work for us?”

• Your presentation:
  • Try to come up with a topic that is relevant
  • Example: “Higgs Bosons at the Tevatron and at a Future Muon Collider”