

Career Development for Graduate Students

May 8-10, 2017
University of
Pittsburgh

Pheno 2017



Elizabeth H. Simmons

These Symposia are supported by
US DOE, NSF, and PITT PACO

Latest topics in particle physics and related issues in astrophysics and cosmology

Associate Provost for Faculty & Academic Staff Development

Organizers: Brian Bales, Cindy Germon, Justine Fisher, Pradyumn Kumar (chair), Ahmed Ismail, Adam Leibovich,
David McKeen, Satyanarayan Mukhopadhyay, ...

Program Advisors: V. Balasubrahmanyam, ...

Tata, Andrew Zentner, Dieter Zeppenfeld

University Distinguished Professor of Physics
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Questions Submitted Online

- Postdoc Applications
- Scientific Virtues
- Giving Talks
- Further Resources
- Other questions...

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Building on the new data



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Program Advisors: Vernon Barger, Lisa Everett, Kaoru Hagiwara, Arthur Kosowsky, Yao-Yuan Mao, Timon Pahn, Xuesi Tata, Andrew Zentner, Dieter Zeppenfeld

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**What Makes a Job
Application Effective?**

Think About Your Audience

- * Busy, with perhaps 100 CVs to read
- * Probably not from your university; possibly not even from your country
- * Wants specific information about your skills, credentials, and experience
- * Wants a sense of how you think about physics how independently you can work, and how you collaborate

Because the Reader is Busy

* Make information leap to the eye

- ▶ list items in reverse chronological order (most recent first) so your best and most relevant qualifications are at the top
- ▶ use fonts, typefaces, spacing to draw attention

* Organize sections consistently

* Be concise

- ▶ small blocks of text can be read at a glance

Because the Reader is Likely to be from Elsewhere

- * Avoid jargon, acronyms, abbreviations
- * Describe your responsibilities
 - ▶ titles do NOT have standard meanings
 - ▶ gives fuller picture of your skills
- * Explain clearly
 - ▶ if the reader must guess what you mean, they may make inaccurate guesses

Tell the Reader the Essentials

* Credentials

- ▶ education [degrees, fields, institutions, dates]
- ▶ employment [employer, title, dates]

* Accomplishments

- ▶ research [topics, projects, results, publications]
- ▶ teaching [courses, institutions, topics]
- ▶ leadership roles [within projects or formal collaborations]

* Areas of Interest [evidence >> assertion]

Scientific Virtues

(a.k.a., besides doing good research, what other skills do I need to acquire or demonstrate?)

- ◆ Sound: hard working, persistent, reliable, attention to detail, ability to check answers
- ◆ Collaborative: team member, does one's share, shares information & credit, trustworthy
- ◆ Spark: creativity, independence, leadership, asking helpful questions
- ◆ Learner: receptive to critique, open to questions, responsive to feedback, listens well

- ◆ Scientific Communicator

- ◆ Clear, explanatory writing, understandable to those outside the collaboration
- ◆ Well-designed talks that get the essence across without too much detail
- ◆ Telling a well-sequenced story with a direct “take-home” message

- ◆ Public Communicator

- ◆ Engages with the public, sees this as part of a scientist's work
- ◆ Helps the public feel the excitement and creativity of science
- ◆ Joins existing activities or starts new ones
- ◆ Uses the medium (talks, demonstrations, cartoons, videos...) that works best for them

GIVING TALKS

Is it helpful to give talks? YES

- Visibility makes your applications stand out
- helps people get an impression of your "scientific virtues", such as how you respond to questions

Where should I give talks?

- PHENO, DPF, APS April Meeting (and other conferences); many prospective employers will be present – this is efficient!
- a university or national lab; best if this is part of a mini-conference; a regular seminar series tends to fill up fast and won't give you wide visibility

How do I ask to give talks?

- Conference? Use the regular application process; contact the organizer if anything is unclear
- A university or national lab? contact the head of the seminar series or an acquaintance; if you're passing through town, a special seminar may be possible

Targeted Career Resources

The Academic Job Search [web page compiled by Prof. Brian O'Shea at MSU]

http://www.pa.msu.edu/~osheabr/academic_job_search.html

American Physical Society Career Site

<https://www.aps.org/careers/index.cfm>

Academic Jobs Online

<https://academicjobsonline.org/ajo/HEP>

Resources:

AIP Statistical Research Center: www.aip.org/statistics/

American Physical Society

Gender Equity Report: www.aps.org/programs/women/workshops/gender-equity/

Best Practices: <http://www.aps.org/programs/women/reports/bestpractices/>

C-LGBT Report: go.aps.org/lgbtphysics

Faculty Family Friendly Edge: ucfamilyedge.berkeley.edu/

Gender Equity Project: www.hunter.cuny.edu/genderequity/

lgbt+physicists

Website, with Out and Ally lists lgbtphysicists.org

Best Practices Guide: lgbtphysicists.org/files/BestPracticesGuide.pdf

NSF ADVANCE

Portal Website: www.portal.advance.vt.edu/

Michigan State's ADAPP-ADVANCE Project: www.adapp-advance.msu.edu/

StratEGIC Gender Equity Toolkit: www.colorado.edu/eer/research/strategic.html

WISELI Guide to Inclusive Hiring: <http://wiseli.engr.wisc.edu/searchguidebooks.php>

More Resources:

Books:

- L. Babcock and S. Laschever [Negotiation], *Women Don't Ask and Ask For It*
- S.E. Page [Diversity and Teams] *The Difference*
- C. Steele [Stereotype Threat] *Whistling Vivaldi*
- J. Williams & R. Dempsey [Patterns of Bias] *What Works for Women at Work*
- E. Ideal & R. Meharchand, eds. [Women Role Models in STEM] *Blazing the Trail*

Articles:

- Nature special issue: Vol. 495, 7 March 2013
- Inside Higher Ed, column: *Mend The Gap* [E.H. Simmons]
- Inside Higher Ed, column: *Mentoring 101* [Kerry Ann Rockquemore]

Mentoring Programs:

- National Center for Faculty Development & Diversity <http://www.facultydiversity.org>
- MentorNet <http://mentornet.org>

Other questions

From Online:

- Need postdocs seek external funding?
- Comparison among HEP fields?
- Jobs other than postdocs?

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