

Choosing a Graduate School in Physics and Related Disciplines

Peter J. Collings

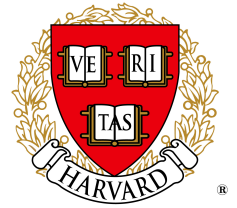
Morris L. Clothier Professor of Physics
Swarthmore College

Jacob J. Krich

Postdoctoral Fellow
Harvard University



Assumptions



- You **have decided to apply** to graduate school in physics or a related discipline.
- Your undergraduate major is physics.
- You understand that through a teaching/research assistantship and tuition/fee waivers **you will not have to pay** for your graduate education.
- You think that **the most “mysterious” parts** of the process are
 - Selecting the schools to apply to, and
 - Choosing the school to attend.



Choosing the Graduate Schools to Apply to



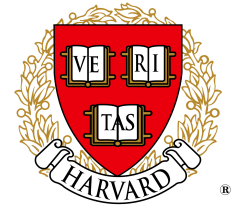
What to Look For in a Graduate Program



- Strength in a particular area (some universities with less “name recognition” have top programs in specific areas)
- Strength across the discipline of physics and in related departments
- Access to specialized facilities (telescopes, accelerators, national laboratories)
- Structure of the program (course work, qualifying exam, teaching obligations, length of time to degree, thesis defense procedures)
- Geographical location and university setting



Selectivity of Graduate Programs



- Aspects of Selectivity:

Admissions criteria (quality of your undergraduate preparation, letters of recommendation, all GRE scores, research experience)

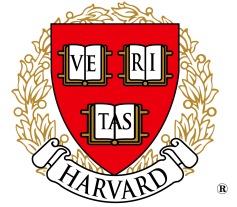
Chance of being admitted (percent admitted, GRE scores of admitted students, success of prior applicants from your school, contacts with faculty at the graduate school)

- General Advice:

You should apply to schools that represent various levels of selectivity, *i.e.*, where your chances of being admitted range from excellent to fair.



Gather Information



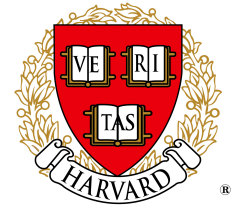
- Check department and faculty websites
- AIP book: *Graduate Programs in Physics, Astronomy, and Related Fields*
- GradSchoolShopper.com
- Email departments and current/past graduate students
- Talk to physics professors at your undergraduate institution
- Visit some graduate schools



Choosing the Graduate School to Attend



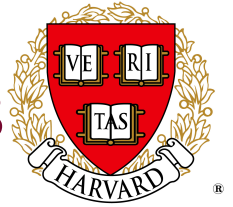
Study Each Offer of Admission



- Amount of teaching and/or research obligation
- Arrangement for choosing your thesis advisor (some programs offer more flexibility than others)
- Possibility of support to perform research the summer following your first year
- Possibility of deferring admission for a year
- Possibility of performing research the summer before you enroll



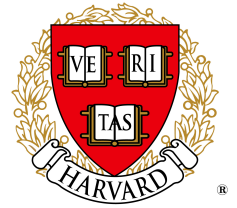
Program That Best Meets Your Needs



- Overall strength and strengths in specific areas
- Structure of the program (course work, research, support mechanisms, length of time to degree, PhD graduation percentage, specialized facilities)
- Geographical location, university setting, opportunities for your “significant other”
- Intangibles (graduate student community, climate for women and minorities, faculty-student relationships)



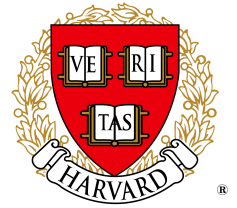
Visit Most Promising Schools



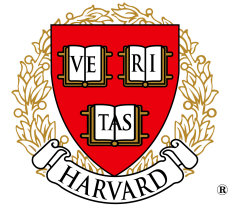
- Departments will usually help pay for a visit
- Visit on the department's "visit day." If you visit at another time, make arrangements to see people ahead of time.
- Talk to professors and graduate students in your areas of interest
- Stay overnight and find out:
 - Student satisfaction** with course offerings, classroom instruction, and thesis experience
 - Track record** for placing students after they receive their PhD
 - General level of **happiness** of students and faculty



Making the Final Decision



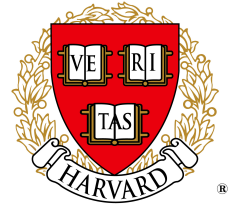
- Don't put much emphasis on the financial offer (they tend to be similar and in accordance with the cost of living)
- Avoid allowing “name recognition” to influence your decision too much
- Determine how well the available research environment matches what you are interested in and excited about
- Think seriously about your career goals and concentrate on how well your long-term needs will be satisfied
- Don't stress out about two close choices – either will be fine



Resources



Read, Surf, Talk



- AIP book: *Graduate Programs in Physics, Astronomy, and Related Fields* (sent to all undergraduate departments)
- GradSchoolShopper.com
- AAPT provides a good resource for applying to and choosing a graduate school. *Planning for Graduate Studies*: <http://www.aapt.org/Resources/students.cfm>
- Your undergraduate professors (talk to them!)
- This webinar available at: <http://www.aps.org/careers/guidance/webinars/gradschool.cfm>