SHOULD I GO TO GRADUATE SCHOOL?

What can I expect?

- Typically 5 to 7 years to PhD
- First two years primarily taking
- After the first or second year
  - Usually necessary to pass qualifying exam
  - Typically *very* difficult
- By third year, most transitioning to research.
- Culminates in Ph.D. dissertation
  - Based on a serious piece of original work
  - Typically takes 2 to ? years to complete

Good News

- Almost all students completely supported
  - Teaching assistantships
  - Research assistantships
  - Fellowships
- Nobody gets rich as a graduate student, but you usually don't go deep into debt or have to work an outside job, either.

Preparing to Apply

- Start planning in Junior Year
- Have a GPA > 3.0
- Take General GREs (www.ets.org) in Spring or Summer before the Fall senior year — *Study*
- **STUDY** for your Physics GRE
  - Subject Test Dates: early October, November, and April
- Start thinking about:
  - What do I really like about physics?
  - What kinds of physics do I really like?
  - Where do I want to go after graduate school: Academe? Industry? Business?
  - Make sure this is something you *really want*

Choosing a Grad school

1. Make realistic assessment of your own abilities and record.
2. Decide which **field or fields interest you**.
   a. Most physics department specialize in just two or three different areas
   b. It makes no sense to go to a very good university that has no faculty in the areas that excite you
3. Are geographical region &environment important to you?
   a. This shouldn't be the most important criterion, but if you are going to spend up to 7 or 8 years in a place it would be nice to be reasonably happy during the times when you're not in the lab.
   b. Cost of living.
4. Don't get carried away by rankings

Rankings

Tools & Resources

- www.Phds.org
- **http://www.gradschoolshopper.com/**
- **https://www.usnews.com/best-graduate-schools/top-science-schools**
- A useful reference is *Graduate Programs in Physics, Astronomy, and Related Fields,* published annually by the American Institute of Physics.
- Your professors!

Applying to Graduate School

- GREs – General and Physics subject matter
- Transcripts
- Three Letters of Recommendation
- Personal Statement

Most Grad Schools will look at the application package as a whole, so that a deficiency in one area could be balanced by superlative performance in another area.

How to be a competitive applicant

- Know ***why*** you are applying to this particular program—*tailor your application to the school*
- Take all the physics courses that are offered—make your transcript as strong as it can be
- Do undergraduate research
- Go away to a Summer program to do research
- Email prospective "potential advisors"—make a connection
- Try visiting the school; talk with professors

If Physics Grad School is not for you: Other Options for Graduate Study

- Applied Physics programs
- Masters programs in engineering
- PSM (Professional Masters)
- Industrial experience and then MBA
- Law School
- Med School (take another year to get pre-med requirements if you don't have them)
- MA-STEM Ed (Masters in Teaching – gets you certified)
- Post-bac Research semester or year