

# Applying to Caltech Physics

## An unofficial guide by grad students

2021-22 EDITION

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### What you need to apply to Caltech Physics

(and most other physics grad programs) in approximate order of importance:

- Online application form (*Caltech can waive the application fee*)
- 3 letters of recommendation
- CV/résumé
- Transcript(s) (*unofficial transcripts are fine for Caltech*)
- Personal statement

*(Note: Neither General nor Physics GRE scores will be accepted this application cycle. Please do not include them anywhere in your application.)*

### IMPORTANT NOTE:

Although this list is in what we *grad students* think is roughly the order of most to least importance, remember that your application will be judged **as a whole**. Excellent parts of your application can help make up for other parts.

### Application timeline: what to do and when to do it

*This timeline is just a rough guideline—you don't need to follow it exactly. Also, this process is stressful, so don't forget to take care of yourself!*

#### **Now:** Start getting materials together

- Think about **where to apply**.
  - You might want to organize your thoughts in a [spreadsheet](#) that lists things like "Course requirements," "People to work with," etc.
- Feel free to reach out to people!
  - You can contact faculty you're interested in working with. Ask about their research, see if they're taking students, etc.
  - You can also ask current grad students what it's like working with Prof. [insert name], what the culture of a department is like, etc.

## **Now:** Start getting materials together (*continued*)

- Start working on your **CV**.
  - Find [templates](#) online (we recommend making yours in LaTeX)
  - Caltech's grad office has a nice list of things that should go in a CV
- Figure out what **tests** you need to take:
  - The [regular GRE](#) and [physics GRE \(PGRE\) tests](#) are **NOT** currently accepted as part of the Caltech Physics application.
    - Some schools do still require PGRE scores. If you decide to take the PGRE, [register](#) early for the September and/or the October test.
    - Study tips: Take the [official practice tests](#), especially the most recent ones! Some of us also found the book [Conquering the Physics GRE](#) to be useful.
  - If your first or native language is not English and you don't have a degree from a US institution, you may need to demonstrate English proficiency with the [TOEFL](#). [Dates and locations](#) vary by country.



## **September-ish:** Letters of recommendation

- Ask for **letters of recommendation**.
  - Who to ask?
    - **Best:** past research supervisors
    - **Good:** academic advisors or professors who know you well
    - **Not ideal:** professors who don't know you well (even if you got an A in a class they taught)
  - How to ask?
    - Ask early! They might be able to suggest places to apply
    - Explicitly ask if they can write you a "strong" letter
- After you decide where to apply, make sure you **send your letter writers info:**
  - A list of places and deadlines to send letters (make sure you update this regularly!)
  - Your CV/résumé and a copy of your transcript, along with whatever extra information they ask for
  - If you have any extenuating circumstances that might explain other parts of your application, consider asking your recommenders to mention them in their letters

## October-ish: Fellowships and essays

- Check out online lists of **fellowships** and see if any might be right for you.
  - Don't think you'll get a fellowship? Apply anyway, if you can. It never hurts, and it's really useful when writing other applications.
  - For US citizens, the [National Science Foundation Graduate Research Fellowship Program](#) (NSF GRFP) is a great opportunity. The application is due **October 22** for physics and astronomy.
  - For more tips on applying for the NSF GRFP, check out [Alex Hunter Lang's website](#). Even if you don't apply, you might want to check out the great example essays hosted here.
- Work on your **essays / statements of purpose**.
  - DO (or try to):
    - Express your career goals & research interests
    - Briefly describe past research, emphasizing your contributions
    - Explain why a particular program is a good fit for you
      - Name drop professors who you might want to work with
    - Ask people to look over your statement!
      - Especially ask grad students, postdocs, and/or professors
      - Get a friend to check for clarity and grammar
    - Send them to your letter writers once you have drafts
  - DON'T (or at least reconsider):
    - Be overly flowery—it's not an undergraduate application essay!
    - Use clichés (especially the "I fell in love with physics as a child" one)

## November-ish: Work on applications

- Send your **transcripts**.
  - Fellowship and grad school applications both typically require transcripts. Depending on your university, it can take a long time to get official transcripts sent; get it done early and avoid rush charges.
  - Note that Caltech Physics will accept unofficial transcripts!
- Make sure your letter writers get recommendations in!
  - Caltech's **online form** will send you a notification when a letter has been submitted on your behalf. If they are not in yet, gently remind your letter writers; they're busy and might have forgotten.

## **December:** Send in your applications

Application deadlines are usually in December-January (note that for some schools, deadlines for international students may be earlier than for US students). The Caltech Physics deadline is **December 15**.

**After submitting applications: try not to stress!**

## **January-March:** Wait to hear back

- For some schools, you may be interviewed over video chat if you make it to the short list.
  - At Caltech, committee members will ask you about your research experience. They will ask you to explain various aspects of your research and ask how you think joining the program at Caltech will be mutually beneficial to you and to our department.
- Decisions for physics graduate programs usually start coming in late January. Caltech will post all final decisions by **April 1**.

## **March-April:** School visits

- If you are accepted, someone from the university will be in touch about visiting the department (all expenses will be paid for you).
- Astrobetter has a list of good resources for [visiting and choosing schools](#), including Dra. Cabrera Salazar's list of [questions to ask](#).

For US schools, **April 15** is the deadline to decide on a grad school.

Before April 15, take your time to make a decision! But if you're sure that you want to reject an admission offer, please let the school know as quickly as possible. This lets them admit students off the waitlist and gives these students more time to consider their options.

## **FINALLY:**

Remember that grad school admissions are often driven by factors you have no control over (funding, which professors are looking for students, etc.)! You are **not** defined by the schools you do or don't get into, and plenty of physicists (including some of us) didn't go to grad school right away. You can be successful no matter what you decide to do.