

HOW TO FIND THE RIGHT RESEARCH PROJECT FOR YOU

I've decided to use the immense power of the **profTHOUGHTS** pulpit to talk about how one should pick a research project and how one can know whether it is the right problem for you. I should point out that a large part of this was inspired by ideas from my friend Chelsea Walton, who is a very strong researcher in her own right and whom I saw giving advice on this.

So how do you pick a problem? The short answer is that it's not easy and several criteria should be met, which I'll now discuss. The first criterion is that you should find the project interesting. If it's not something you can become addicted to and devote large amounts of time to solving, it will be a chore and doing research should ultimately be something you look forward to. It's easy to know whether or not you find something interesting, so let's move on to the subsequent conditions that should be met.

The next thing you should ask yourself is: Is this something that's interesting to other people? If the project is interesting only to you, that's OK, but it should then be something you do on the side as a hobby and not as a main part of your research program. This can of course be harder to ascertain and sometimes one writes something that only gains some following after several years, but you should at least be able to convince a reasonably open-minded person that what you're working on is interesting. A project is not just a problem—there's a story to be told and you should think hard about how to best tell that story to an audience. That means sometimes agonizing over your words as you write, writing multiple drafts, and looking at how your project fits into the larger body of literature. It can be a lot of work, but if you care about your project, it is worth spending considerable time on this step.

The third thing to ask yourself is whether you have an approach or some new idea that can help you with completing the project. If you decide you want to sit down and see whether you can prove the Riemann Hypothesis, that's fine, but it's not an ideal approach for making consistent progress on a problem. Examples of reasonable approaches might be adapting (that's a polite word for stealing) ideas from another paper that made progress on a related problem; or perhaps you might break the problem into smaller parts that you can ultimately glue together into a solution and work on the project on a piece-by-piece basis; or maybe you just want to start with a special case that you know how to work out and go from there. Whatever the case, it is a good idea to at least have some plan.

OK, so now let's suppose that you have found a project where the first three criteria have been met. Now what? The final step is that you need to establish a timeline for completing the project. For young researchers—who need to worry about

finishing grad school and getting publications out during postdocs—this last step is especially important. It is very easy to misjudge this step and even experienced researchers sometimes make miscalculations with the timeline, but try to be honest about how long you think it will take you to progress through the various stages in your plan, to obtain the solution, and to do all the writing. If you figure it will take ten years, that's OK (in some ways that's better than a project that will take six months), but you should then make sure it's not the central focus of your research program—especially if you are a young researcher.

So to answer the question about having success with USRAs, I generally try to have a list of accessible projects where there is some plan already in place and where the estimated timeline is roughly six months. Then I just see how things unfold over the semester. For such projects, considerable progress can be made in a single semester by a motivated student.

Jason Bell

EDITORS CAN'T SPELL

How is that news?

It has come to light that the Editors of this fine publication cannot spell simple words like "spinach" when ordering pizza, and this issue is severely lacking in actual articles, I have decided to help them to space by engaging in a gallimaufry logorrhoic flow of difficult words.

mathNEWS genethlology is on hiatus due to a dearth of daedal demiurge available. Perhaps the prolongation of the paper requires us to print secund; it may be necessary to make a perscrutation to locate a sempster who can weave a raschel seine to capture a facund flamen capable of instilling hwyl into our writers. A panurgic hawkshaw may need to be hired for this nefarious deed.

Good luck with getting that spelling right.

Zethar

A FIRST YEAR'S GUIDE TO THE BATHROOMS ON CAMPUS

The number one priority when moving to a new location is locating and securing the top-quality toilets in the region. As such, I have compiled a collection of reviews on the (mens) toilets I have toured and extensively investigated on campus.

V1 Main: The main building has washrooms both downstairs, and upstairs. The downstairs one is a fairly average bathroom.