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# PhD opportunities

Information, advice, things to consider

Please type questions and I'll address them at the end

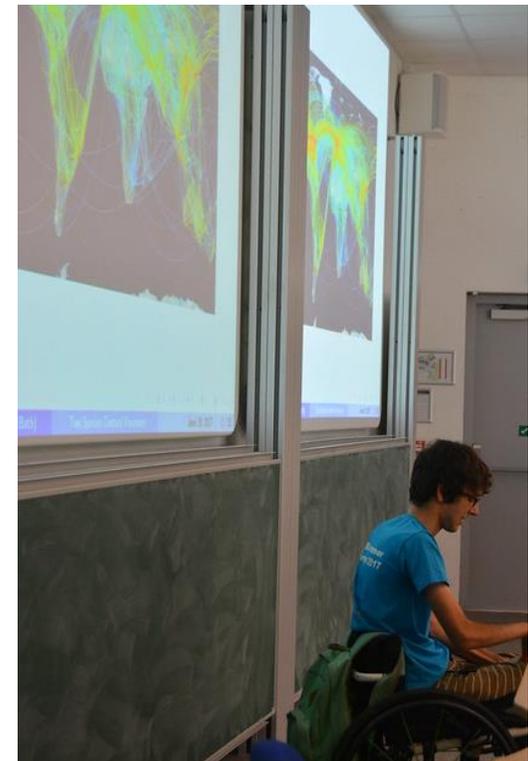
# Why do a PhD?

- Intellectual curiosity
- To make a difference
- To open up new career opportunities
- Create something that is yours
- To interact with people who are also excited about mathematical sciences research

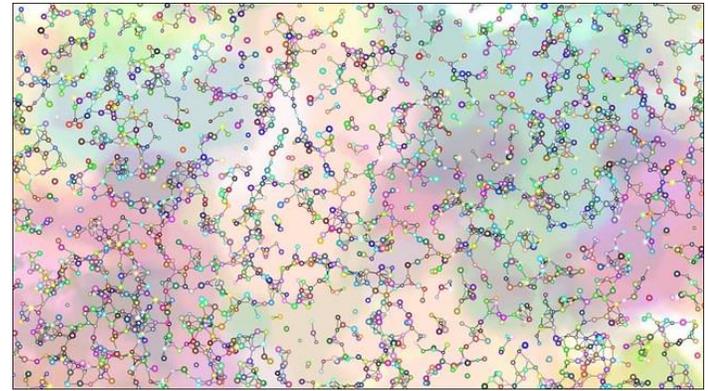


# What do you need to complete a PhD?

- Creative thinking
- Intellect
- Communication skills
- Resilience
- Open-mindedness
- Self-motivation
- Funding/scholarship



# Finding the right PhD



- Find a PhD - <https://www.findaphd.com/>
- Explore universities and research groups online
  - Some will have specific courses or projects advertised (usually funded)
  - Some you can apply more generally with an idea for your own research (funding not guaranteed)
- Approach individuals to discuss ideas and opportunities
  - May well open up new ideas
  - Good to get a sense of how you could work with someone
  - No need to feel committed by having a conversation – explore options
  - Academics with whom you have a relationship may be able to facilitate introduction
- Centres for PhD study can provide additional flexibility (choice of research), enhanced training (courses, mini projects), extra opportunities (multiple institutions, industry collaboration, internships, international links)
- Don't forget overseas

# Getting the right supervisor(s) is key



- The plan and direction of your research will change
- Most important to find a good supervisor you can work well with
  - Early career supervisors should have lots of time for you but are less experienced (though often supported by senior colleagues)
  - More established supervisors will have lots of demands on their time
- See if you can chat with existing students (if they have any) to find out working style and if it will suit you
- Check their publication records and current collaborations
- Everyone works differently – a good supervisor for one person may not be for another – match styles of working
- Make sure you have a good support network - other PhDs, academics, family, friends, support services

# Types of PhDs



## *Non-exhaustive*

- EPSRC CDTs – Maths focused or application-focused with Maths opportunities – provide breadth as well as depth
- Other doctoral entities (e.g. NERC, BBSRC) wide remit – Maths-based PhD with focus into other disciplines
- Academic project – expanding a body of knowledge driven by supervisor
- Industry-linked project – driven by an application – can be academically challenging to meet parameters with scope to make significant impact
- Trusts, charities, philanthropists also support PhD research
- Overseas – centres of excellence all over the world (often funding available)

# What you need to do



- Get experience – most recruiters want to see some experience of research (summer projects, final year projects, internships)
- Get good results – being academically brilliant does not mean you will be a great researcher but you need to show you have good underlying maths skills and knowledge.
- Find out as much as you can about research environment – there will be challenges and ups and downs –so be prepared!
- Talk to potential supervisors
- Talk to your academic contacts – and ask them to advise and facilitate introductions
- Apply early!

# Thanks!

Questions?