

The Vacation Scholarship Program 2026-2027

The University of Melbourne
School of Mathematics and Statistics

Information Session 7 August 2026

Presented by: Dr Marco Carfagnini and Dr Ian Gallagher

With contributions from

- David James (student experience)
- William Shepard (student experience)
- Dr Arunima Ray (supervisor experience)
- Dr Mark Fackrell (supervisor experience)



Coordination

Marco Carfagnini

Ian Gallagher

Roy Ridgway

Academic matters

Practical matters

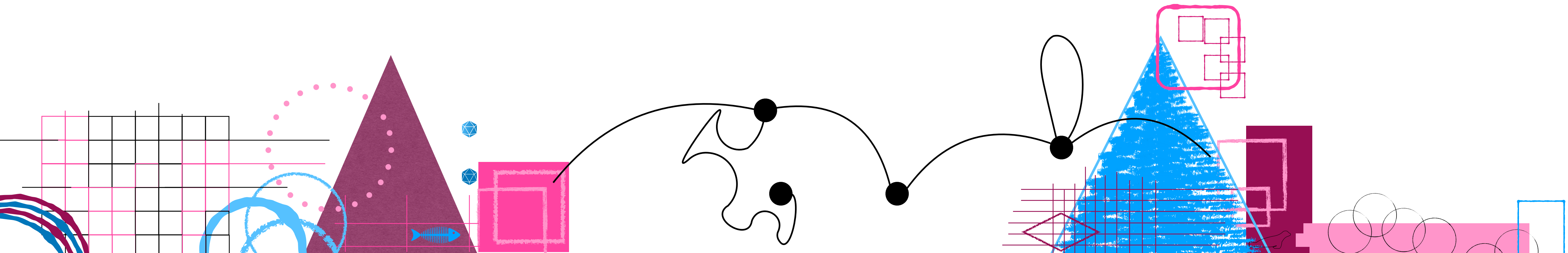
contacts

ms-vacation-scholarships@unimelb.edu.au

NOTE: the email address above can be clicked, just as many other things in this presentation

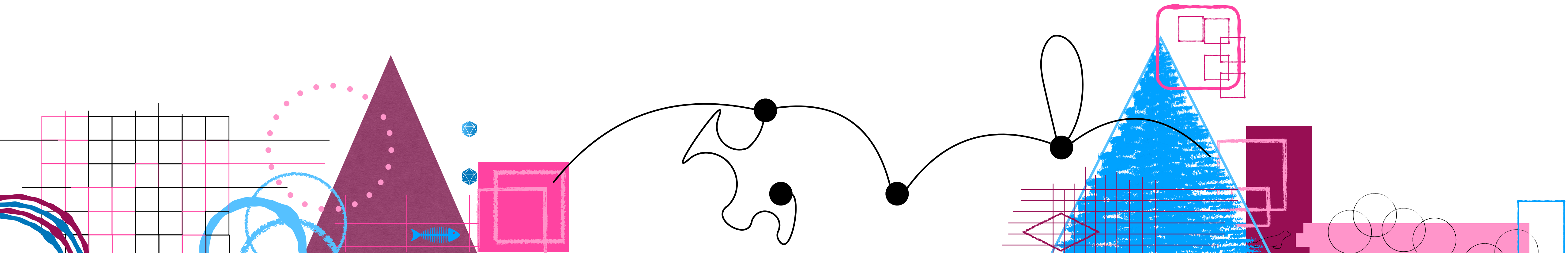
(Too) many shades of W

- What? (is it about?)
- When? (does it take place?)
- Who? (is it aimed at?)
- Why? (should one get involved?)
- Which? (students and projects get selected?)



What is it about?

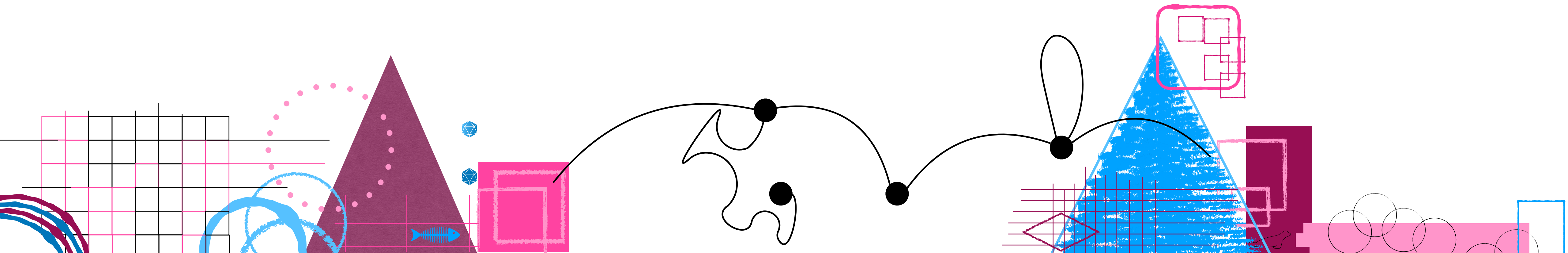
It is a summer research program for undergraduate students in a degree related to Mathematics and Statistics who are enrolled at a University in Australia.



When does it take place?

Summer 2026-2027

- Four weeks between **early January** and **5th February** (exceptionally also in December)
- Poster session on 12th February



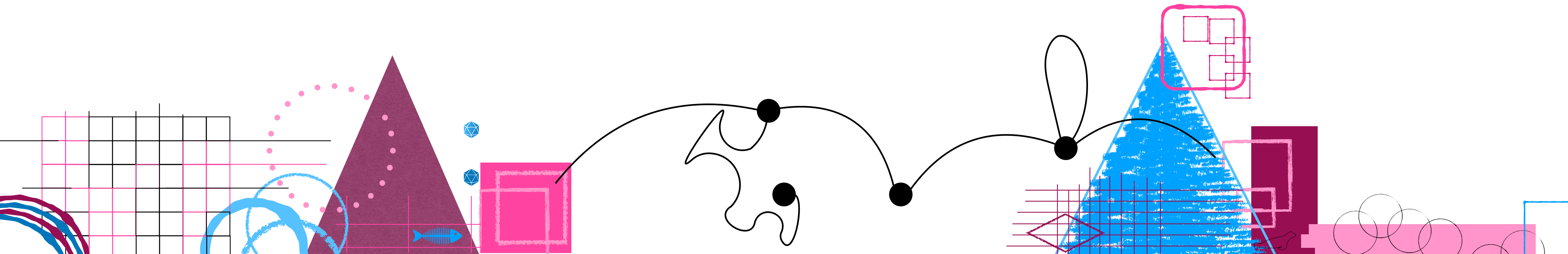
Who is it aimed at?

Students

- Undergraduates interested in research
- Already trained in basic math and / or stats
(must be an advanced 2nd year or 3rd year student)

Supervisors

- Supervisor list
- Feel free to also contact other academics to discuss their availability
(list of all academics)



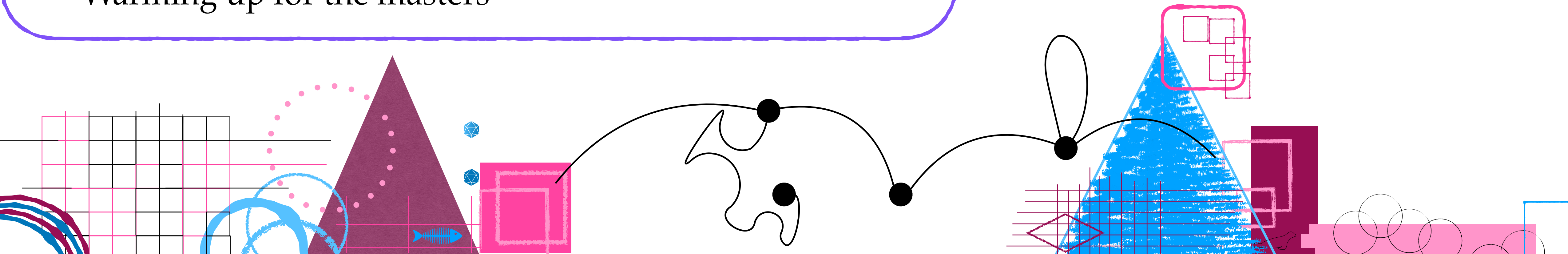
Why should one get involved?

Supervisors

- Implementing a small research idea
- Finding good students for the graduate programs
- Interacting with bright young minds

Students

- Experiencing active research under supervision
- Developing new perspectives on maths and stats
- Experiencing the school in a different way
- Networking and making friends with like-minded students
- Getting paid for having fun with mathematics
- Warming up for the masters

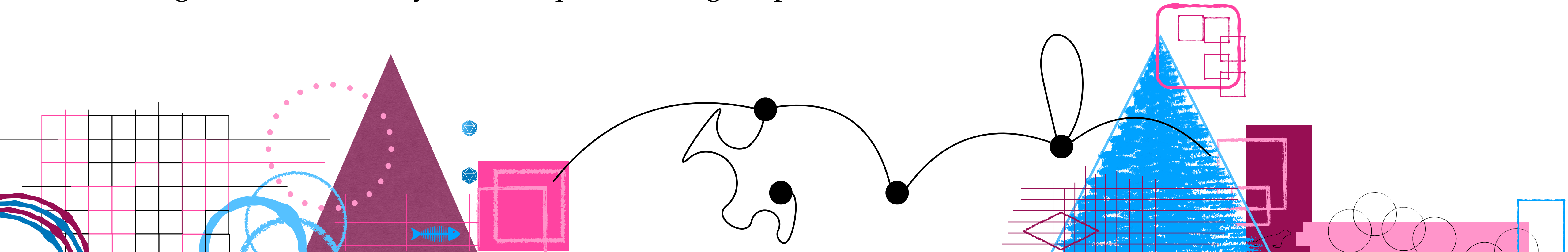


Which students get selected?

Schematics of the selection procedure

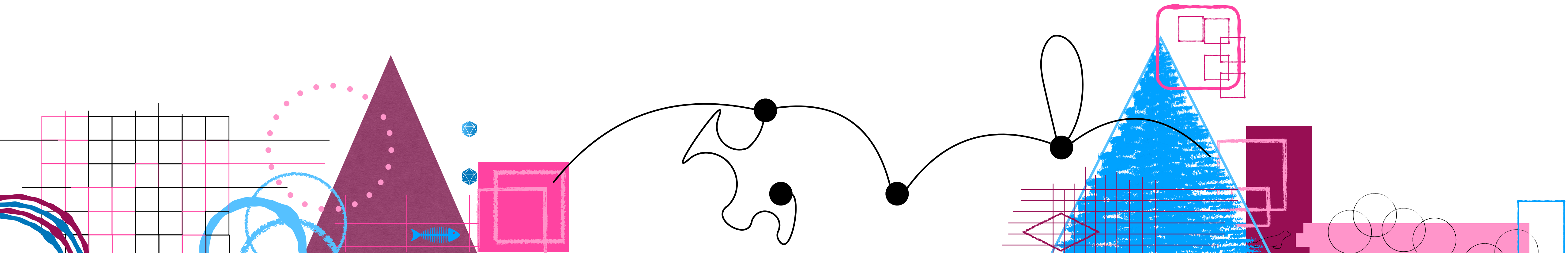
- The main criterion for selection is **M&S subject WAM***
- Selection is also based on your personal statement
- Highly ranked students are more likely to have their project/
supervisor preferences realised

*some scholarships may be distributed by different criteria, e.g. to increase the participation of disadvantaged and currently underrepresented groups.



The nitty gritty details

check [applying](#) for full details about the application process

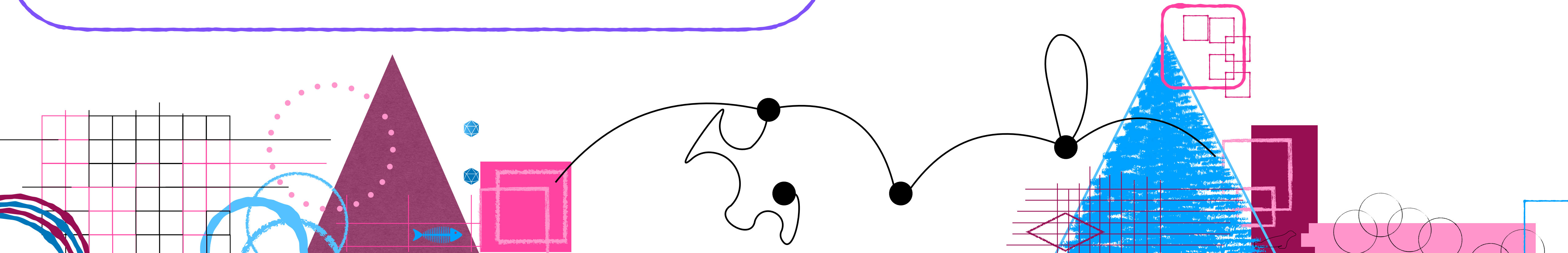


Eligibility

- Be an undergraduate student at an AU university
- At UoM: Usually BSc or D-MATHSC
- Completed ≥ 100 points of study
- Completed ≥ 2 level 2 or 3 genuine M&S subjects
- Completed or be enrolled in ≥ 3 such subjects
- Have not participated before (AMSI would be okay)
- Have a M&S subject WAM ≥ 70

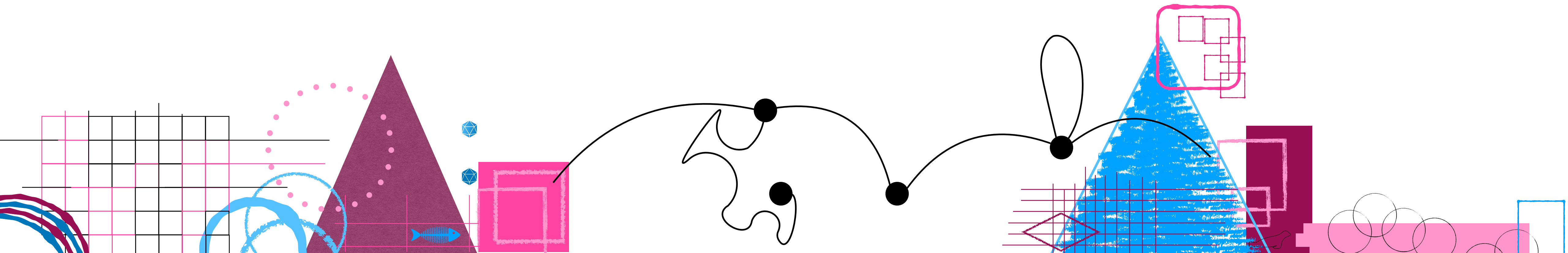
Remarks

- MAST10009 Accelerated Mathematics 2 counts as level 2
- MAST20029 Eng. Maths is not a genuine M&S subject
- See the [eligibility](#) for the full list of eligible subjects



Diversity Scholarships

- The School of Mathematics and Statistics values, encourages and celebrates diversity.
- We created a number of designated Diversity Scholarships to achieve the goal.
- First Nations people, those identifying as LGBTQIA+, women, students of all ages with disabilities and/or caregiving responsibilities are encouraged to apply.
- Fill in the Diversity and Special Consideration part of the application form.



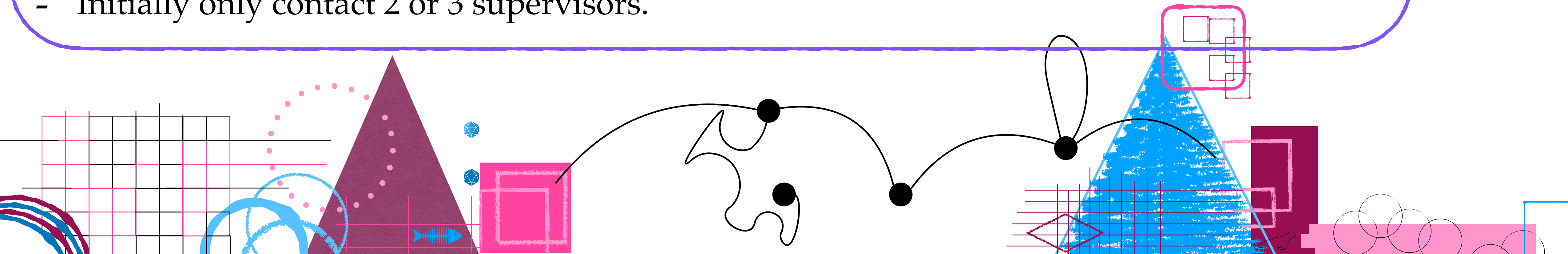
Application procedure

Stage 1: Pre-screening (due August 21st)

- Submit your application. - You **do not** need to approach potential supervisors!
- Applicants are ranked based on M&S subject WAM.
- Top-ranked applicants are either shortlisted or waitlisted.

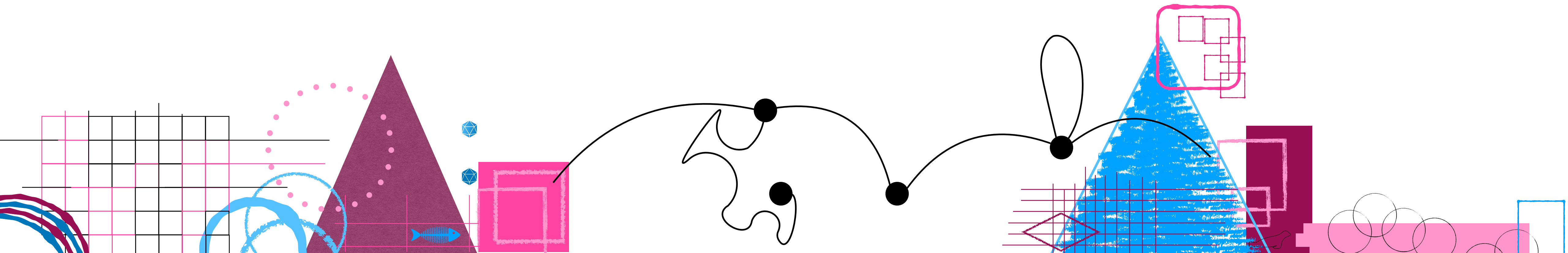
Stage 2: Supervisor approval and nomination

- Shortlisted applicants contact potential supervisors to discuss research projects.
- Shortlisted applicants must nominate and provide an approval email from **2 supervisors**.
- Each supervisor can have ≤ 2 students.
- Initially only contact 2 or 3 supervisors.



- Now → Make sure you satisfy the eligibility criteria
- Aug → Prepare your application documents
- 21 Aug 5pm → Last chance to submit your application
- Early Sept → Shortlist is announced
- Sept/Oct → Stage 2: “supervisor approval”
- (Dec) Jan Feb → Enjoy your research project (if selected)
- 5 Feb → Conclude your project
- 12 Feb → Poster session

Timeline for students

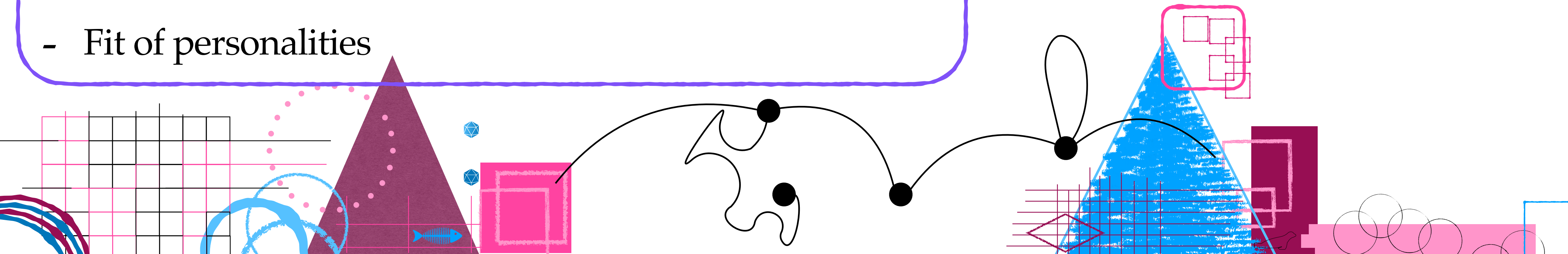


Timeline for supervisors

- Now → Think of and advertise **projects**
- Sept → Being contacted by students
- Sept/Oct → Give email **approval** (give ≤ 4)
- Summer → Supervise **up to two** students

Approval criteria are up to individual supervisors, e.g.

- Match of student to project (subject choices, WAM, ...)
- Availability in summer
- Future academic (or non-academic) plans
- Fit of personalities



Finding a supervisor and a project

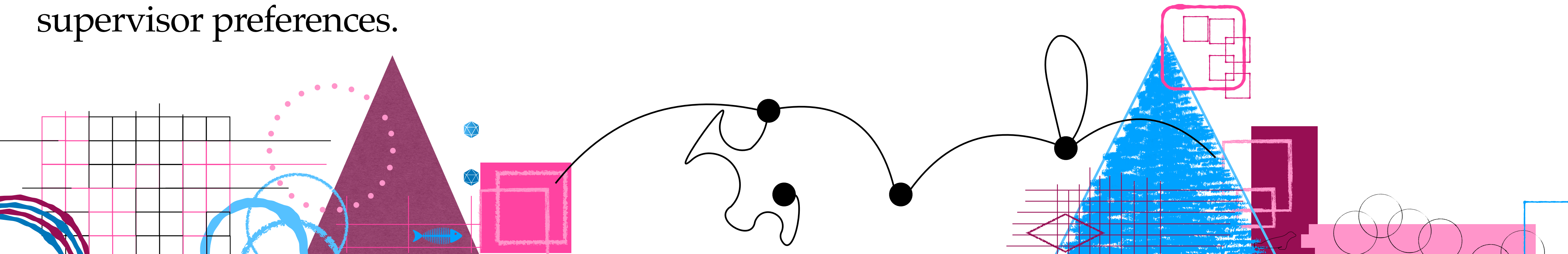
Finding a supervisor and a project is a very individual matter that depends very much on personal interests etc.

Useful resources

- [Supervisor list](#)
- [List of current projects](#)
- [List of all academics](#)
- [Poster gallery of previous projects](#)
- [List of research groups](#)

You may talk to **one** academic while writing your personal statement.

In Stage 2, you should initially talk to **no more than three** academics. You must nominate **two** supervisor preferences.

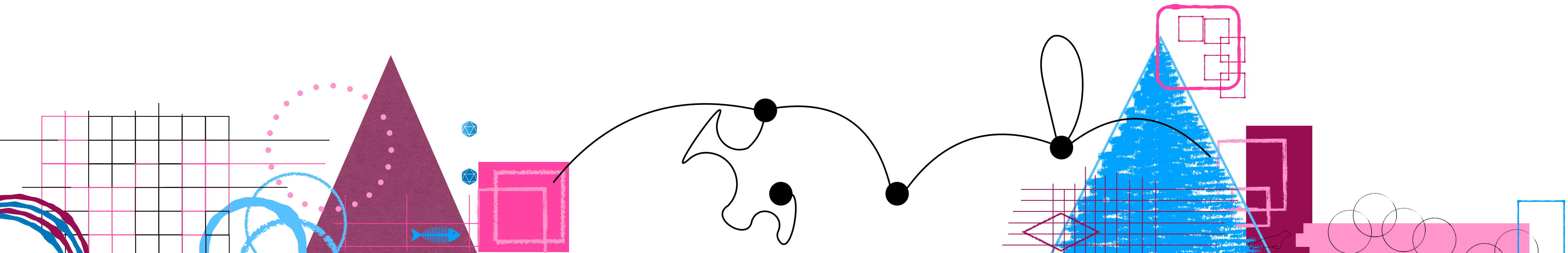


Wooing a supervisor

What not to do?

- Starting with “Dear Sir/Madam” or “Dear Prof.” etc.
- A generic email that could be sent to anyone
- Arrogance

Keep in mind that supervisors might receive many requests!



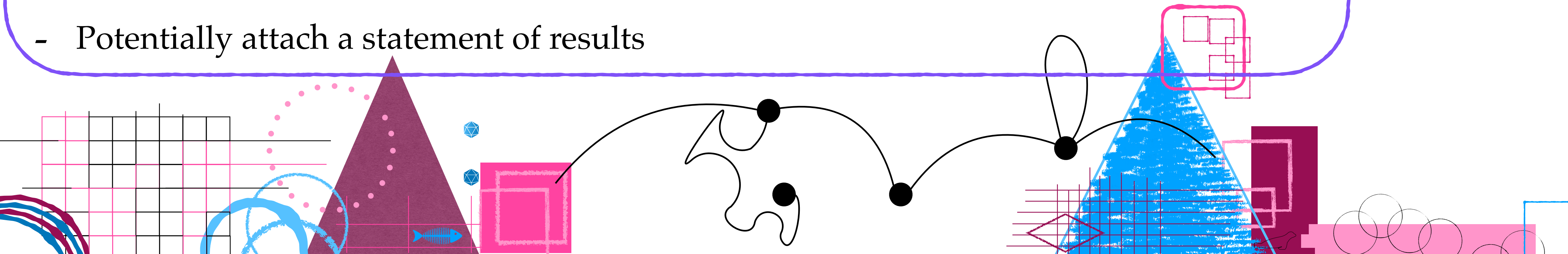
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What not to do?

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Things that might work

- Personalise / adapt your email to the supervisor and their projects or research interests
- Be considerate: we are all busy and receive loads of emails
- Briefly explain your background and motivation
- Kindly ask for a brief personal (Zoom) meeting
- Potentially attach a statement of results

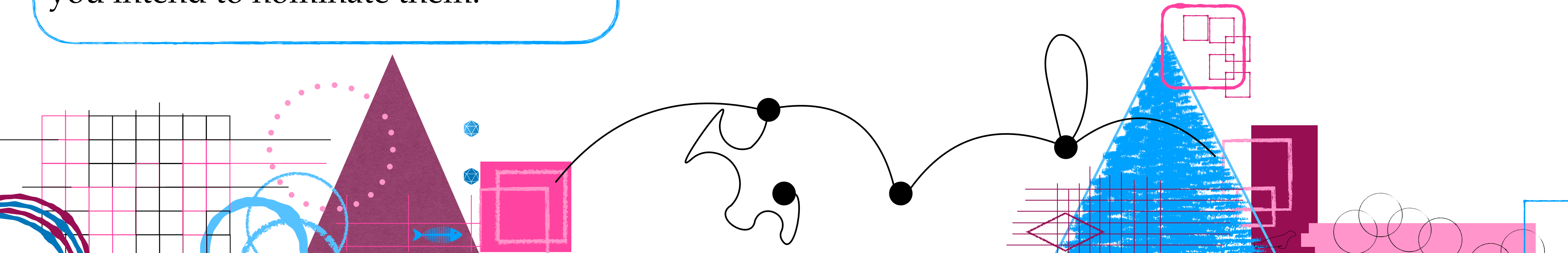


Talking to a potential supervisor

Follow-up: You are not expected to decide right away but once you made up your mind it would be kind to let the supervisor(s) know whether you intend to nominate them.

You scheduled a meeting, what do you talk about?

- Your academic interests, motivation and background
- Your preferences (abstract / hands-on, theory / computer)
- What projects there are on offer and what they entail
- Whether projects can be adapted to your interests
- What knowledge you are expected to have
- How supervision will work in practice
- Availability during certain periods



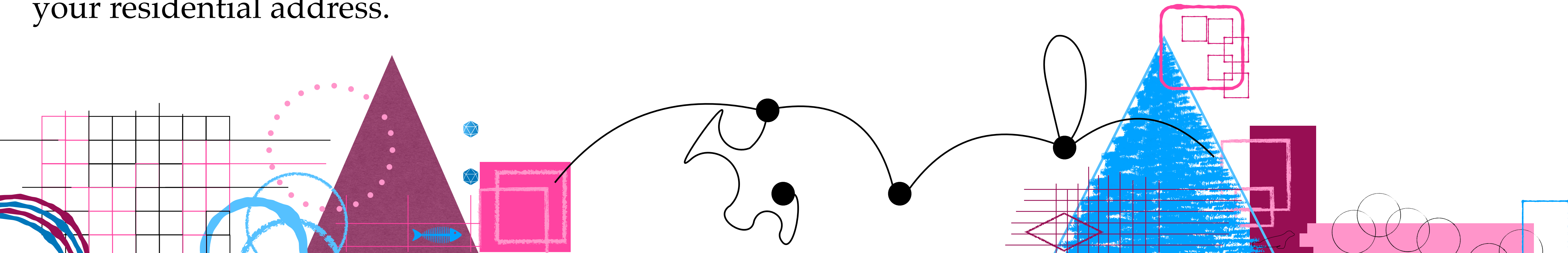
How to apply

The application form is available on the web page [How to apply](#)

Documents to be provided for upload

- Current academic transcript or statement of results
- Curriculum Vitae (≈ 2 pages)*
- 1 page statement of motivation addressing:
 - Why you are interested in the VS Program?
 - What are your research area(s) of interest?
 - Why do you believe you are a good candidate?
 - What are your future plans and how the VS Program fit in?

*Please do not include sensitive information such as mobile phone numbers, private email addresses or your residential address.



What other research opportunities are there?

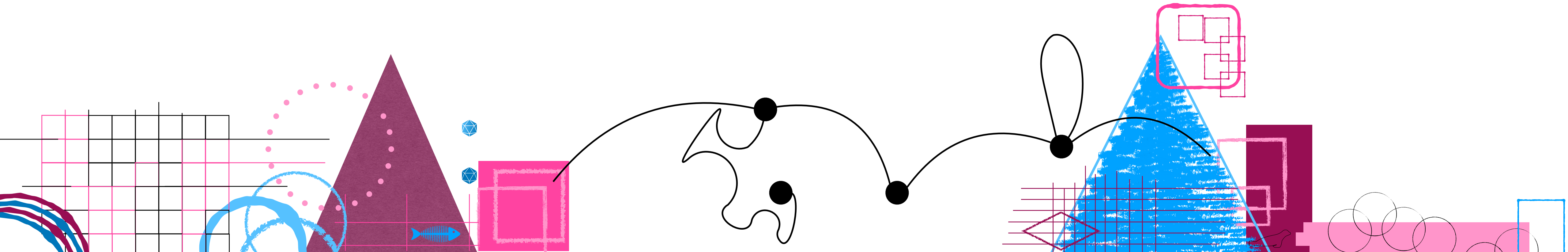
AMSI Vacation Research Scholarship

Students who already participated in the School's Vacation Scholarship program are strongly encouraged to consider an application for an AMSI Vacation Research Scholarship.

Science Research Project in the Bachelor of Science

Students with an excellent academic record can potentially take the module "Science Research Project" (SCIE30001) as part of their degree. Check MS Prime for more information.

It is **not permitted** to recycle a Vacation Scholarship Project as a Science Research Project



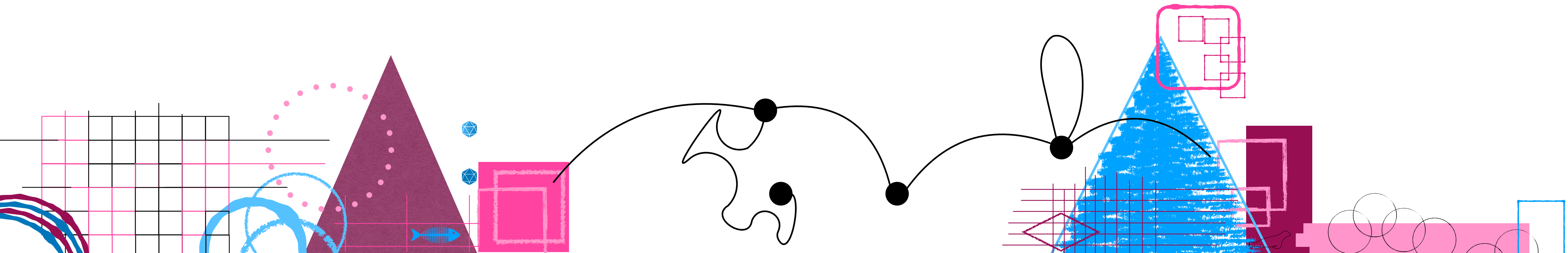
Guest presentations

Students experience

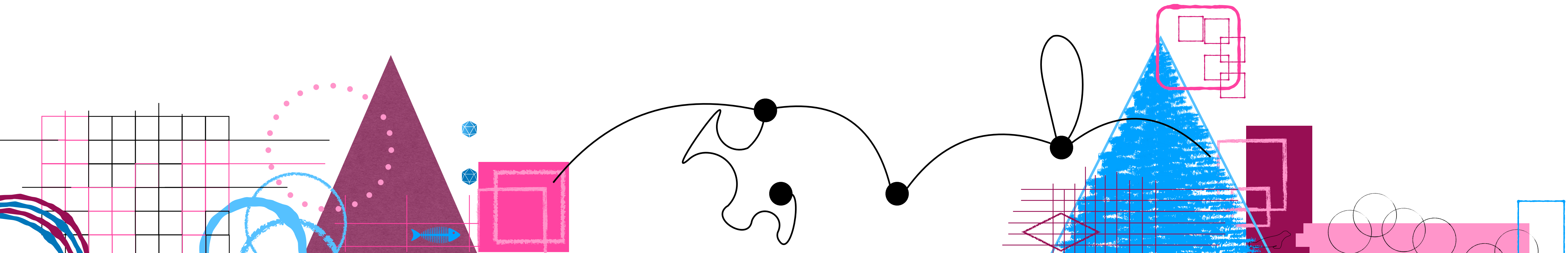
- William Shepard
- David James

Presentations by academics

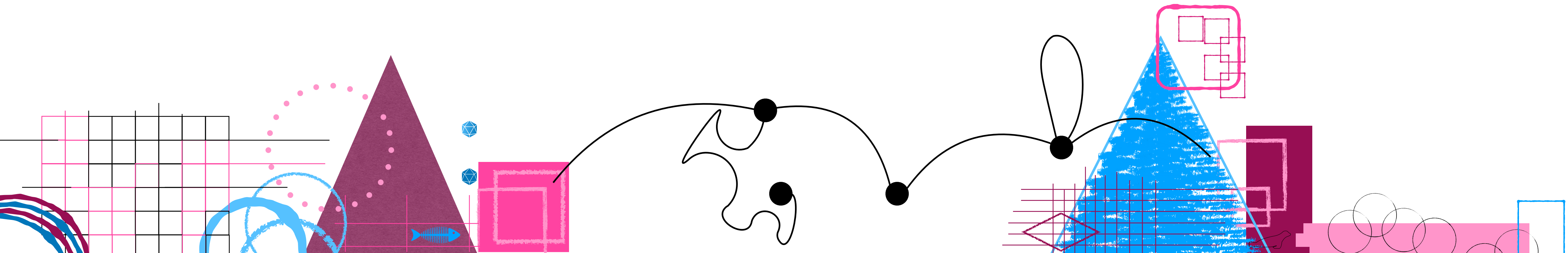
- Dr Arunina Ray (pure math, topology)
- Dr Mark Fackrell (operations research, game theory)



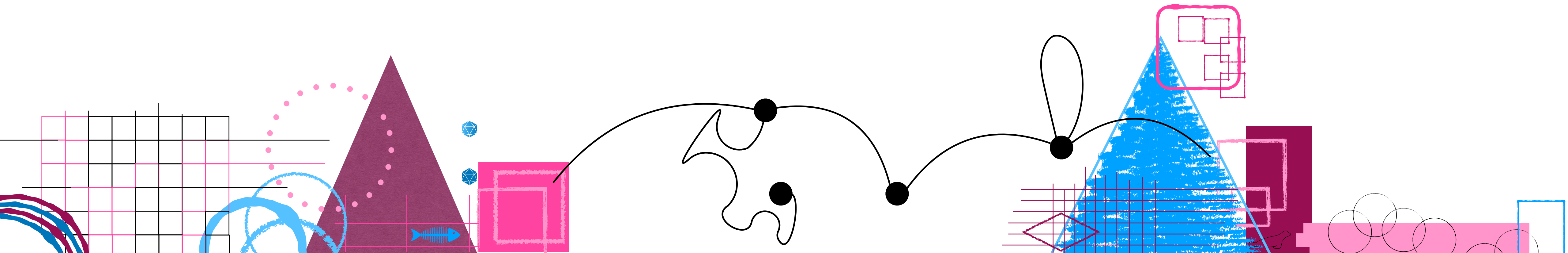
- Dr Arunina Ray (pure math, topology)



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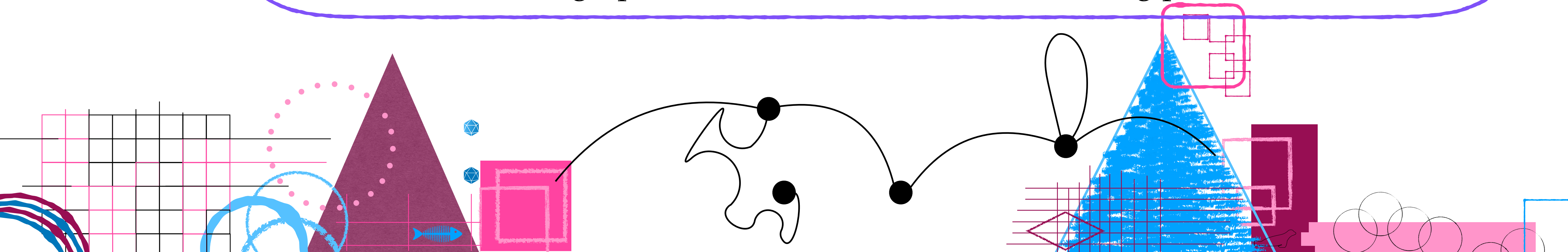


- William Shepard



My Experience

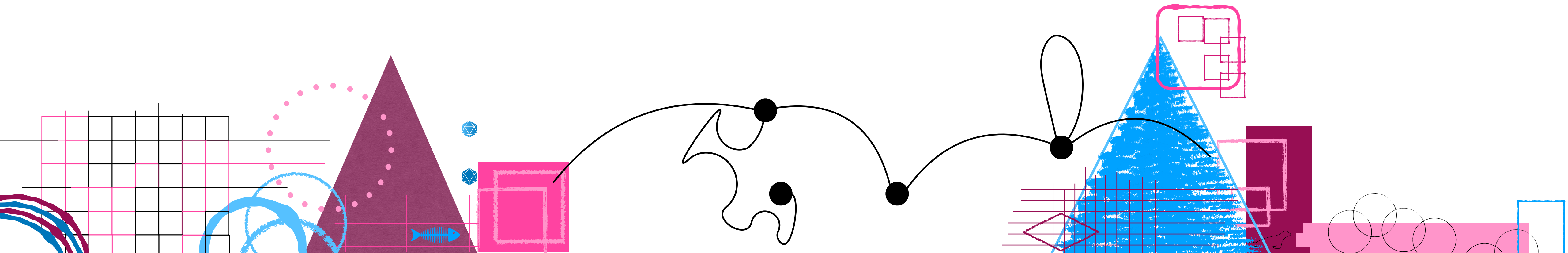
- Working in the Infectious Disease Dynamics Unit with Dr Oliver Eales and A / Prof Freya William Shepard
- Focus on mathematical biology and statistical methods in epidemiology
- Timeline
 1. Week 1: Reading and understanding previous models and domain knowledge
 2. Week 2: Programming previous models to apply to current dataset
 3. Week 3: Learning new statistical methods and programming newly devised method
 4. Week 4: Writing up results and discussion and creating poster



- William Shepard

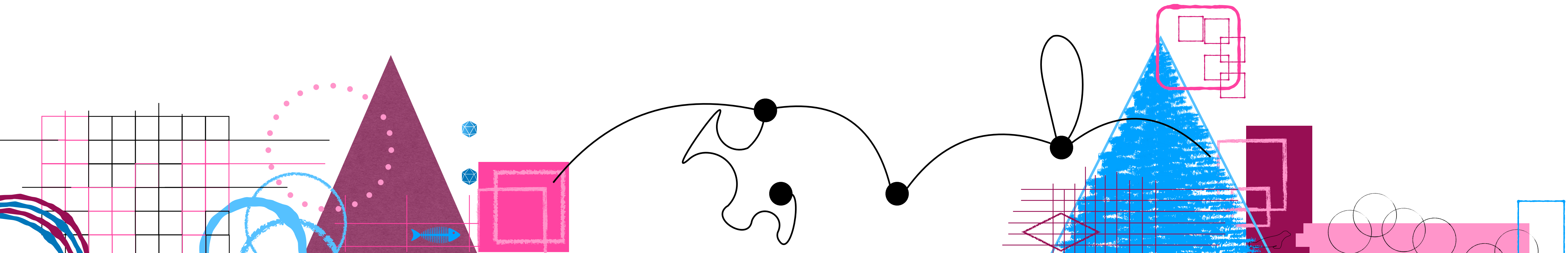
What I got out of it

- Created a new model, felt like I was doing my own work
- Got my first real taste for research
- Learned new skills, both technical and soft
- Met new people in a different faculty and learned what it was like to work as a full time academic

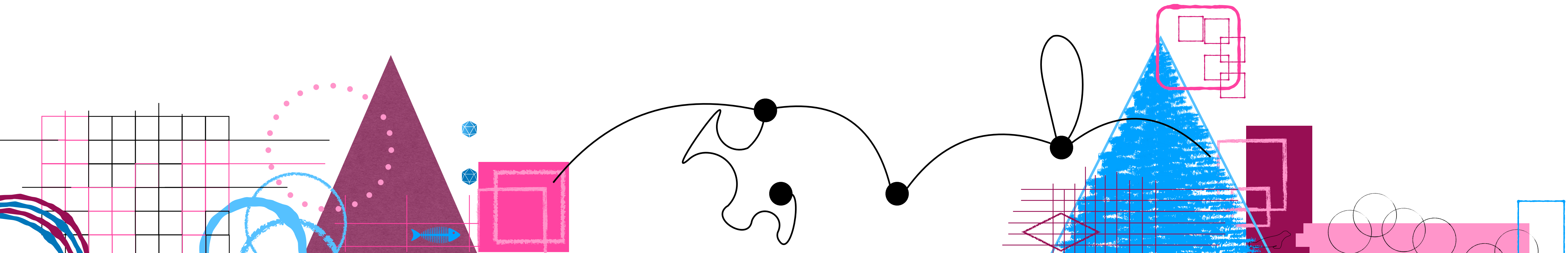


Applying for the program

- Don't be intimidated!
- Understand your potential supervisor's background
- Try to meet in person if possible
- Use the lists of available supervisors and projects on the Vacation Scholarship webpage
- Look at past posters get an idea of the types of projects there are



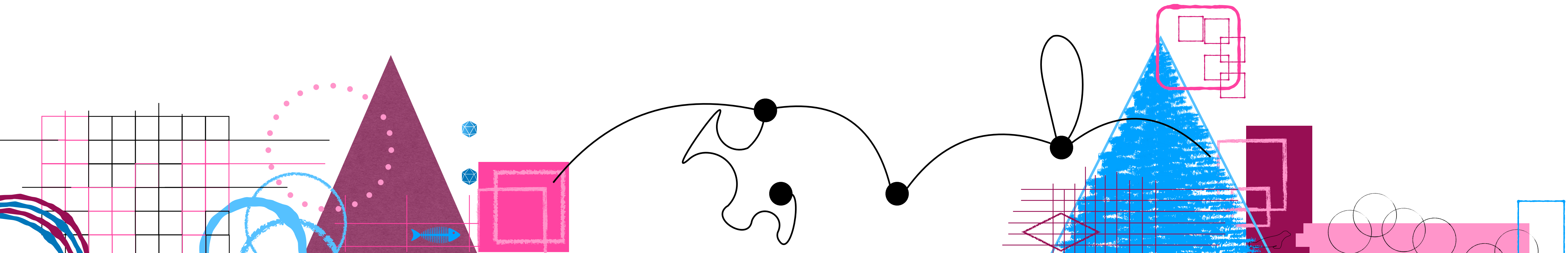
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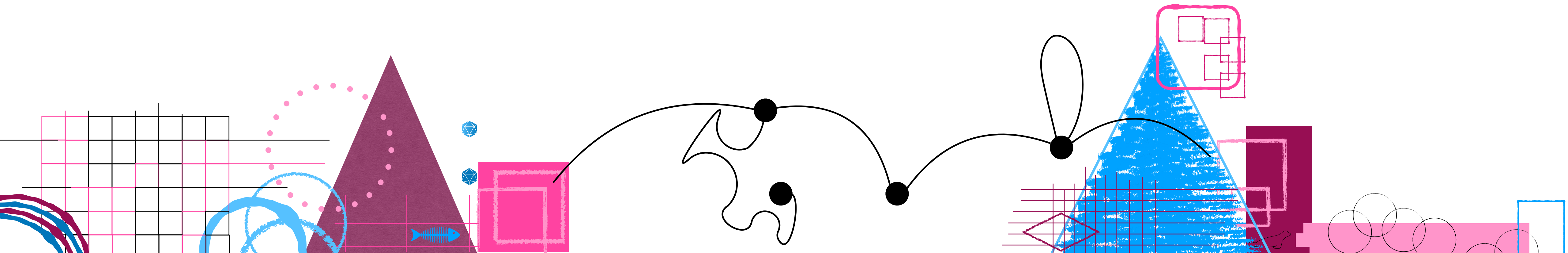
Timeline breakdown

- Preparation: a few textbook chapters in the weeks beforehand
- First week and a half learning the relevant background knowledge
- Second week looked at the actual problem in detail, some motivation for it and previous work on it
- Third and fourth weeks working on original results
- Last (fourth) week making poster as well as researching



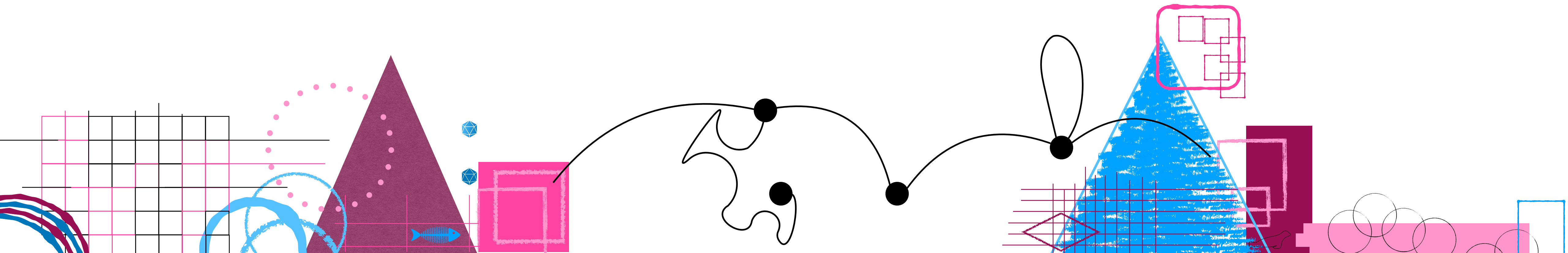
Benefits

- Opportunity to research deeply into a problem, rather than an overview
- Get experience working with and talking to active researchers
- Learning how new research is communicated
- (Depending on the project) Freedom to choose exactly which parts to really dive deep into
- Producing original results and finding out the level of rigour required
- Get a feel for research to inform postgrad decisions



Differences to regular coursework

- Very self-motivated – lots of time spent alone, often no clear list of things to do / lectures to watch, etc
- LOTS of reading and not all of it relevant – have to decide what is and is not useful for yourself
- No “answer sheet” for many questions – either find a paper / textbook discussing the question or rigorously check yourself



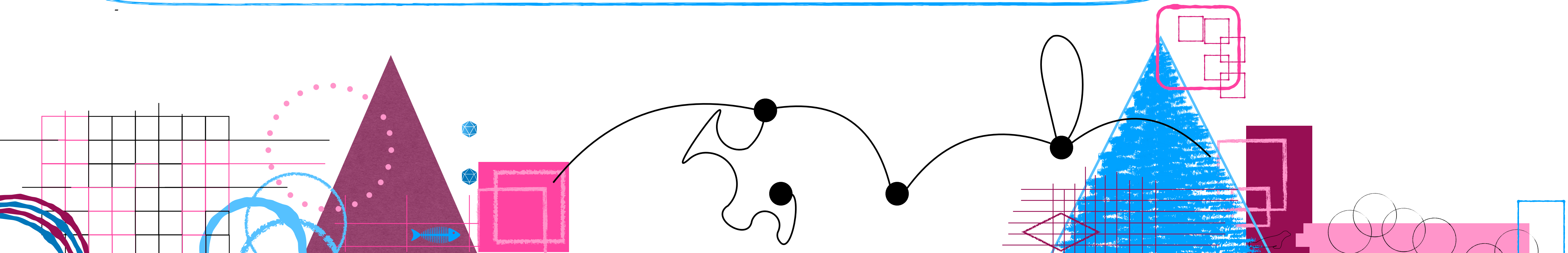
General advice

Looking at projects/supervisors

- Look for topics building off areas you're interested in – ask lecturers, tutors, etc if unsure
- You don't need previous experience in the research area

Once you get a project

- If you aren't sure, ask – that is the whole point of this program
- Keep your research materials organised
- Original work can mean extending that of others in different contexts



Questions, comments, concerns?

