Supervision Tips Talk by the Emmy Noether Society

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The following notes are based on an informal talk hosted by the Emmy Noether Society (ENS) on Michaelmas 2021, in which Maria Gutierrez, the ENS Postgrad Representative for the year 2021-22, shared some things that helped her make the most out of her undergraduate supervisions. These should not be taken as official advice, neither by the society nor the speaker. It is important to experiment with them to see which ones work well for you and which ones don't.

• General Tips

- Don't expect to do 100% on every example sheet! Remember supervisions don't go into your transcripts.
 It is better to attempt more easier questions than to spend 10 hours on a single long question.
- Talk to your friends but don't copy answers!
- Start every question on a new paper: it is pleasing to look at and you will have to cross out many attempts as you proceed. It helps both your supervisor and you, since these questions come up in exams and it would be easier for you to revise from.
- Have some idea about which parts of the courses you are comfortable / uncomfortable with!

• Before the Supervision

- Make a list of questions you want to talk about during supervision. Try to talk about these first. Supervisors may not know what you need help with, and it benefits both you and your supervisor to point that out.
- Study for the supervision. Flipping through your notes and remind yourself about the questions will
 increase your confidence. More importantly, if you study for the supervision, it is easier for you to check
 your understanding.
- Write down how you think you did.

• During the Supervision

- Perhaps take a 15 minute break to relax before the supervision. Don't be late!
- Ask questions even if they are not on the example sheet. Is this question a part of a broader topic? Does it generalize? Are they typical exam questions?
- Notice yourself if you lose focus

• After the Supervision

- Reflect on your supervision. Fill in any blanks and correct your notes, and check whether your intuition for solutions is correct.
- Exam questions might come from example sheets, particularly for the pure courses. Some non-examinable materials may also appear on exams in different forms.
- For exams: it is better to be very knowledgeable on a few courses than knowing a lot of different courses.
- Q & A: I have my solutions but they are messy. Is it worth my time to rewrite them?
 - Messy mathematically: Yes. Messy aesthetically: No. But they should be at least readable: you need them for future exam preparation and reference!