Information on Graduate Studies in **Mathematics & Statistics** and **Computational Science & Engineering**

Dr. Matheus Grasselli

on behalf of Dr. Bartosz Protas, Associate Chair, Graduate

office: HH/326 Email: bprotas@mcmaster.ca

October 3, 2019

[a copy of this presentation is available at
https://ms.mcmaster.ca/bprotas/graduate.shtml]

Why go to Grad School?

- Love of the subject
- Enhanced job opportunities — advanced degrees useful in
  - Academia
  - Industry
  - Government

What do graduates do after finishing?

- M.Sc. programs feed into Ph.D. programs
- M.Sc. degrees offer advanced training in analytical and quantitative skills essential in e.g., financial math, statistics, big data, scientific computing
- some M.Sc. graduates go to professional schools (law, business, teachers' college, etc.)
- Ph.D. graduates often target academic jobs, but are also successful in industry and government

Where to go to grad school?

- big versus small universities
- critical mass in your field of research interest
- which country?
  Canada, United States, UK, France, Germany, Australia, Spain, Brazil, ...

Consider Grad School at Mac!

- Research and training opportunities in
  - core areas of pure and applied mathematics
  - statistics and big data
  - financial math
  - math biology
  - scientific computing
- Project and thesis M.Sc. in Mathematics
  - project-based M.Sc. in less than 12 months!
- Project and thesis M.Sc. in Computational Science & Engineering (CSE)
- Gain knowledge and experience before going on to professional program or Ph.D.

How do I get into grad school?

- *Apply!* Lots of information available online:
  - websites, social media
  - Email grad advisors and potential supervisors, directors of specialized programs, etc.
- Most require a B+ honours degree (average based on math courses taken in last one or two years)
- Admission to some program can be very competitive minimum grade averages are not indicative ....
- It helps a lot to approach potential supervisors in parallel with submitting an application
- Strong research potential is important, especially for Ph.D. *try to build up credentials (project courses, USRAs, etc.)!*

Typical Application Checklist

- Statement of research interests
- Reference letters (at least 2) from *professors knowledgeable about your mathematical abilities*
  - invest time in allowing professors to get to know you so that they can provide meaningful information!
- GRE (Graduate Record Examinations) scores (for the US)
- Transcripts
- Application fee

What to expect in Grad School?

- Courses, TA responsibilities, seminars, ...
- Research may start right away or within a year — finding a supervisor is essential!
- At McMaster: possible transfer directly from M.Sc. to Ph.D.
- Direct entry to Ph.D. programs common in the US
- Comprehensive or qualifying exams are common in most Ph.D. programs

Scholarships

- NSERC CGS–M (www.nserc.ca)
  - Canadian/PR
  - A- (80%) average minimum in each of last 2 years
  - value: $17,500
- OGS (osap.gov.on.ca)
  - Canadian/PR
  - A- (80%) average minimum in each of last 2 years
  - value: $15,000 ($5,000 per term)
- Commonwealth, Canada-US Fulbright, French Embassy, etc.
- Universities often top-up these awards

Important Deadlines

- November to January — grad school application deadlines
- February 1 — application at McMaster
- December 1 — NSERC CGS-M (no internal application)
- no deadline for OGS (part of grad school application)
- GRE registration deadline for subject test is early September

Additional Resources

- Application Procedure for McMaster (Mathematics & Statistics)

https://www.math.mcmaster.ca/index.php/graduate-studies/application-procedure.html

- Application Procedure for McMaster (Computational Science & Engineering)

https://computational.mcmaster.ca/graduate-studies/application-process.html

- School of Graduate Studies

https://graduate.mcmaster.ca/

I am always happy to meet with you to discuss
any questions you might have.
$\Longrightarrow$ book an appointment via Email

GOOD LUCK WITH YOUR APPLICATIONS AND HOPE TO SEE YOU IN OUR GRADUATE PROGRAM!