Welcome to the Mathematics Department

A Guide for the Perplexed

Caleb McWhorter & Erin Griffin

Syracuse University
August 2018

Department History

Graduate Student Organization

Graduate Student Organization (GSO)

- Office located in Lyman Hall.
- http://gradorg.syr.edu/
- GSO represents the graduate students at SU.
- Offers travel grants to students.
- Help to fund the MGO conference.
- Hold events, typically at the Inn Complete.

PAY YOUR GSO FEE!

Mathematics Graduate Organization

Mathematics Graduate Organization (MGO)

Title	Name	Email
President	Caleb McWhorter	cgmcwhor@syr.edu
Vice President	Casey Necheles	clnechel@syr.edu
Treasurer	Erin Griffin	egriff02@syr.edu
Secretary	Rachel Gettinger	rngettin@syr.edu
Colloquium Organizer	Sara Beberman	sebeberm@syr.edu
GSO Senator	Erin Tripp	eetripp@syr.edu
GSO Senator	Joash Geteregechi	jmgetere@syr.edu
WebMaster	Caleb McWhorter	cgmcwhor@syr.edu

Caleb   Casey   Erin   Rachel   Sara   Erin   Joash

MGO Facebook

Friday Febuary 20 , 1:00 pm, Carnegie 300

The sum of $\frac{1}{n^2} = \frac{\pi^2}{6}$: an easier proof
Claudio DiMarco, Syracuse University

The Cauchy condensation test shows that series $\sum_{n=1}^{\infty} \frac{1}{n^p}$ converges if and only if p>1. "Euler's series" is the above sum with p=2. It is a classical and important result that the sum of this series is $\frac{\pi^2}{6}$. We will present a simple "proof from the book" of this fact that requires only calculus. This is a welcome departure from the trappings the proof found in (blue) Rudin which relies on Parseval's theorem.

Last Updated Feb 19, 2015

MATHEMATICS GRADUATE ORGANIZATION: SYRACUSE UNIVERSITY

SYRACUSE UNIVERSITY MATHEMATICS GRADUATE ORGANIZATION

This is the homepage of the Syracuse University Mathematics Department Mathematics Graduate Student Organization. On this site you can find a variety of information regarding the Mathematics Graduate Program at Syracuse University, locate resources for graduate students, find information regarding the Annual New York State Regional Graduate Mathematics Conference, and much more! Be sure to check out our Facebook page as well as the Mathematics Department website!

Resource Links

Resources found at this link.

- Departmental Resources
- University Resources
- Software Links
- Comic links
- Teaching resources

Resources found at this link.

- Homework, Quiz, Exam Templates
- Syllabus & Expectations Templates
- Comment Card Templates
- Resources on 'How To.'

Resources found at this link.

- Prelim Solutions
- Qual Exam Materials
- Course Notes
- Outside University Resources

Resources found at this link.

- Departmental Seminars: Algebra, Analysis, Topology, Applied Math, Statistics
- MGO Colloquium
- Graduate Student Seminar
- Directed Reading Program

Technology & Resources

Technology & Resources

- Blackboard
- Personal Websites
- Mathematica
- Geogebra
- Sage & MAGMA
- Cables available from Sandy.
- Any and all app resources.

A Note on Library Resources

Student Tutoring Resources

- Math Help Room
- Calculus Clinic
- CLASS
- Private Tutoring

Tutoring

- Send course list to the department.
- Tutoring List
- You may **not** tutor a course which you are teaching. For example, if you teach MAT 295 or are a MAT 295 recitation instructor, you may not tutor for **any** MAT 295 section.
- The tutoring rate is $40/hr.
- Many students will want to use ApplePay or Venmo.

Odds 'n Ends

- AMS Membership
- Travel Funds
- Counseling Services
- Recitation Expectation Sheet
- Abide by FERPA
- Filming Resources Available

Syracuse

Things to Do

- Hiking, Walking, etc.
  - Green Lakes
  - Onondaga Lake Park
  - Clark Reservation
- Rock Gym
- Destiny USA
- Apple Picking at Beak and Skiff
- Niagara Falls
- Westcott Cultural Fair
- Skeneateles Day Trip
- Ithaca: AppleFest, Harry Potter Fest, Chili Fest, etc.
- Intramural Sports
- Local Ice Skating

Places to Eat

- Appiza
- Dinosaur BBQ
- Stoop Kitchen
- Kitty Hoynes
- Pastabilities
- Blarney Stone
- Inn Complete
- Alto Cino
- Beer Belly
- Texas de Brazil
- Brooklyn Pickle

Coffee

- Starbucks
- Recess
- Kubal
- Freedom of Espresso
- Tim Hortons
- Rise and Grind Cafe

Places to Drink

- Now and Later
- Blarney Stone
- Inn Complete
- Als
- Benjamin's
- Empire Brewing Company
- Downtown Pubs
- Medieval Brewery
- 1911 Tasting Room
- World of Beer

General Advice

Advice

- If you're an extrovert, find places to make friends outside of the department as well as making friends inside the department (personal experience lol)
- Find people you can actually study with
- Try to learn things well the first time through (and make materials you can use for studying later)
- Ask older students for help *after* consulting with your peers
- Try to keep yourself healthy and your life balanced-ish. [Work really hard, but remember that you want to do this for the rest of your life. Sprint when you need to but remember that you're in a marathon.]
- *Read* the texts. [Especially Rudin. Learn how to read Rudin.]
- Do practice problems on your own if you're struggling with something even if they aren't assigned
- Grad school is a lot of self motivated study, don't expect the homework to cover everything you need to be doing to prepare. [Especially in 601/602.]

Quotes of Paul Halmos

- "The only way to learn mathematics is to do mathematics."
- "A good stock of examples, as large as possible, is indispensable for a thorough understanding of any concept, and when I want to learn something new, I make it my first job to build one."
- "Don't just read it! Ask your own questions, look for your own examples, discover your own proofs. Is the hypothesis necessary? Is the converse true? What happens in the classical special case? Where does the proof use the hypothesis?"

Questions?