#### Professional Development Committee

University of Utah

January 22nd, 2020

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### Departmental Funding (Tuition Benefit & Teaching)

Without a Master's Degree: (Some international Masters degrees fall into this category as well)

- Guaranteed 10 semesters funding & tuition benefit
- Automatic 2 semester extension of tuition benefit after teaching or TA-ing for 4 semesters

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With a Master's Degree:

- Guaranteed 8 semesters funding & tuition benefit
- No extensions without exceptional circumstances

### Departmental Funding (Tuition Benefit & Teaching)

All Students:

- Will be asked to register for only 3 semesters of thesis research once you are out of tuition benefit.
- Asked to submit a graduation plan each year during 5th year and beyond to stay in good standing with the department.
- Not guaranteed but usually: If in good standing you still get teaching assignments at normal graduate student pay through the first 6 years of PhD, sometimes for 7th and beyond as well. Sometimes students in their 7+ year will only be offered teaching funding at the adjunct/summer rate. This is handled on a case by case basis, and it is unclear if standards in the department are changing.

For questions contact Hannah H.

### 1 Summer

- From the Department
- Internships/Fellowships
- Counselor/Facilitator of Math programs

### 2 Year/Semester

### 3 Travel





### Summer

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From the Department

### Teaching in the Department

#### Eligible: Everyone

Time: The whole summer (May 11–July 29, 2020), the first half (May 11–June 17, 2020), the second half (June 18–July 29, 2020)

#### Application: There will be an email in February

- Money: 3-credit class: \$4900, 4-credit class \$6200 (2019), 5-credit class (class+labs) \$7500
  - Other: Nat Smale is doing the assignment. Priority is given to experienced teachers.
- Students: Look at the schedule from the last summers to see who has taught a summer class before.

- Summer

From the Department

### Summer high school program

# Eligible: Everyone (pure math background preferred)

Time: 4 weeks (June 15–July 10, 2020)

- Application: If you are interested talk to Stefan Patrikis. There might be an email in February/March.
  - Money: \$4000 (2019)
  - Other: The topic is number theory.
    - Link: https://www.math.utah.edu/highschool/ summerhsp.php

Students: Allechar S, Peter M

From the Department

### RTG pre-REU

Eligible: Everyone (the topic is: Symmetry, randomness, and computation)

Time: Four weeks (May 11–June 5, 2020)

- Application: If you are interested talk to Sean Howe. This is not always advertised to the grads mailinglist.
  - Money: about \$4000
  - Other: The topic varies, in 2020 it is 'Symmetry, randomness, and computation'.

Link: http://www.math.utah.edu/~howe/reu2020/ Students: Allechar S

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Summer

From the Department

### TA Training

Eligible: Everyone with teaching experience

Time: About 2–3 weeks before the fall semester starts

Application: There is an email to grads (for this summer that was November 2019).

Money: \$1000 (2019)

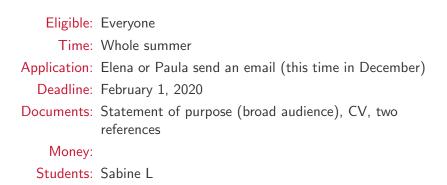
Other: The organization will change, since Kelly is leaving. Karl is organizing them from now on.

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Students: Sabine L, Allechar S, Anna N

From the Department

### Departmental Summer Research Fellowship



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From the Department

## RTG Summer Research Fellowship

### Eligible: US citizens and permanent residents in Algebra, Geometry, and Topology

Time: Whole summer

# Application: Either apply to the departmental one or there is an email in March.

Documents: Research plan, letter/email from advisor/mentor Money:

Students: Hannah H

- Summer

From the Department

## Bridge Program for Business Students

# Eligible: Everyone (preferred that you have taught 1090 or 1100)

Time: For four weeks, five days per weeks, two hours each day.

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Application:

Money: \$4000 (2018)

Other:

Students: Allechar S

- Summer

From the Department

### Teaching Related Project

Eligible: Everyone

Time: As agreed upon.

# Application: If you have an idea of a project talk to the corresponding course coordinator.

Money: Depends on the number of hours agreed upon before.

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Students: Sabine L

Summer

Internships/Fellowships

### Summer internship at Los Alamos National Lab

Eligible: Everyone (depending on the security clearance and/or OPT (?) for F1-visa holders)

Time: Differs by program.

- Application: Multiple deadlines, the next March 30, 2020. They often open in October.
  - Money: \$24.35–\$31.75 per hour (depending how far along in the degree)
  - Other: Find someone who knows people where you want to apply to give you an advantage.

Link: https:

//www.lanl.gov/careers/career-options/
student-internships/graduate/index.php

Students: Samantha H

Summer

Internships/Fellowships

### NSF Mathematical Sciences Graduate Internship Program

Eligible: Everyone Time: May-September Application: Deadline: Middle of January Money: \$12000 plus travel Link: https://orise.orau.gov/nsf-msgi/ Students:

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Internships/Fellowships

# Mickey Leland Energy Fellowship (MLEF) Program

- Eligible: US citizens
  - Time: 10 weeks

Application:

Deadline: Mid-January

- Money: weekly stipends of \$750/\$850 (depending on master/PhD student)
  - Other: Applications from underrepresented and minority students are encouraged

Link: https://orise.orau.gov/mlef/default.html
Students:

Summer

Internships/Fellowships

### AAAS Mass Media Science & Engineering Fellows Program

# Eligible: US citizens or permanent resident enrolled as a student

Time: 10 weeks

Application: Open in October.

Money: Stiptend \$6000 and travel expenses

Link: https://massmediafellowship.aaas.org/

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Students: Rebecca H

Internships/Fellowships

### Hinckley Policy Institute

Eligible:

Time:

Application:

Deadline: Varies depending on internship (around January)

Money: Not all internships are paid.

Other: Local, federal policy or global internship

Link: https://www.hinckley.utah.edu/internships

Students: Rebecca H

Summer

Internships/Fellowships



There are many (local) companies that have internships or are willing to create one on request. The department has some contacts and some alumnis are in positions to help.

Counselor/Facilitator of Math programs

### Counselor Jobs at the Ross Mathematics Program

#### Eligible:

- Time: Six weeks in the USA (Ohio Dominican University, Columbus, Ohio, June 21–July 31, 2020) or Five weeks in Asia (Changzhou, Jiangsu, China, July 5–August 7, 2020)
- Application: By email, during the first few month of the year. Paula send an email about it.
  - Money: Room and board; at Ross/USA salary is \$4500; at Ross/Asia salary is \$2500 plus travel reimbursement
    - Other: The topic is number theory. (2020)
    - Link: https:
      - //rossprogram.org/counselors/to-apply/
  - Students: Matthew B

Summer

Counselor/Facilitator of Math programs

### PROMYS

#### Eligible:

Time: July 5–August 15, 2020 at Boston University, Boston, Massachusetts

Application:

- Money: \$3800, housing and food
- Other: Number theory.
  - Link: https://promys.org/counselors/ counselor-application

- Summer

Counselor/Facilitator of Math programs

# MathILY(-Er)

#### Eligible:

Time: June 28–August 1, 2020 at Bryn Mawr College, Bryn Mawr, Pennsylvania (or June 7–June 27, 2020 at TBD for the less advanced)

Application:

Money:

Other: Number theory and general discrete math.

Link: http://www.mathily.org/staffpos.html

- Summer

Counselor/Facilitator of Math programs

### LSU Math Circle Summer Program

#### Eligible:

Time: June 7—June 27, 2020 at Louisiana State University, Baton Rouge, Louisiana

Application:

Money:

Other: Number theory, combinatorics, other topics in pure math.

Link: https://www.mathcircle.us/employment Students: Matthew B

Summer

Counselor/Facilitator of Math programs

### Quantitative Methods Math Circle Summer Program

Eligible: Time: July 5–July 25, 2020 Application: Money: Other: Introduction to computational methods in number theory and combinatorics Link: https://www.mathcircle.us/employment Students: Matthew B

└─ Summer

Counselor/Facilitator of Math programs

### Mathworks Honors Summer Math Camp

#### Eligible:

Time: June 21–August 1, 2020 at Texas State University, San Marcos, Texas

#### Application:

- Money:
  - Other: Number theory, coding in Mathematica, other pure math topics
    - Link: https://www.txstate.edu/mathworks/about/ Employment-Opportunities.html

Summer

Counselor/Facilitator of Math programs

### Young Scholars Program

Eligible:

Time: TBD at University of Chicago, Chicago, Illinois Application:

Money:

Other: Number theory, discrete math

Link: http://www.math.uchicago.edu/ysp/

Summer

Counselor/Facilitator of Math programs

### SUMaC

#### Eligible:

Time: July 12–August 8, 2020 at Stanford University, Stanford, California

Application:

Money:

Other: Several areas of pure math

Link: https://spcs.stanford.edu/ instructional-and-academic-jobs

Counselor/Facilitator of Math programs

### Canada/USA MathCamp

#### Eligible:

Time: July 1–August 13, 2020 at Champlain College, Burlington, Vermont

Application:

Deadline: January 31, 2020

Money: \$5000, food, housing, travel reimbursement

Other: General pure math and CS

Link: https:

//www.mathcamp.org/jobs/grad\_students/

Summer

Counselor/Facilitator of Math programs

### **HCSSiM**

#### Eligible:

Time: June 28–August 8, 2020 at Hampshire College, Amherst, Massachusetts

Application:

Money:

Other: Several topics in pure math

Link: https://hcssim.org/jobs/

- Summer

Counselor/Facilitator of Math programs

### New York Math Circle Summer Program

Eligible:

Time: July 27–August 13 at Stuyvesant High School, New York, New York

Application:

Money:

Other: Several topics in pure math

Link: https://www.nymathcircle.org/hiring

Counselor/Facilitator of Math programs

## **BEAM** Discovery

### Eligible: Time: July 1–August 11, 2020 at City College of New York or June 17-July 28, 2020 in Los Angeles Application: Deadline: February 27, 2020 Money: \$3840, food (but not housing), unlimited NYC MetroCard Other: Several topics in pure and applied math Link: https:

//www.beammath.org/counselor-application

└─ Summer

Counselor/Facilitator of Math programs

### **BEAM Summer Away**

#### Eligible:

Time: July 2–August 29, 2020 at Bard College (Annandale-on-Hudson, New York) or June 18–July 15, 2020 at Harvey Mudd College (Claremont, California)

Application:

Counselor/Facilitator of Math programs

### Awesome Math

#### Eligible:

Time: June 3–June 20, 2020 at University of Texas at Dallas or June 22–July 10, 2020 at Cornell or July 12–July 30, 2020 at Cornell or June 24–July 12 at University of Puget Sound

Application:

- Money: \$2600 per session, food + housing, travel reimbursement
- Other: Several topics in pure math
  - Link: https://www.awesomemath.org/ summer-program/positions/apply-now/

Summer

Counselor/Facilitator of Math programs

### Awesome Math

Eligible: Time: June 28–August 8, 2020 Application: Deadline: February 1, 2020 Money: \$3500, food + housing Other: Several topics in pure math Link: http://depts.washington.edu/simuw/current/ pdf/ta\_app.pdf Students: Matthew B

Counselor/Facilitator of Math programs

## Counselor for Epsilon Camp

### Eligible:

Time: July 19–August 2, 2020 at the Univ. of Colorado at Colorado Springs

Application:

Deadline: March 1

Money: Salary: \$2000 (meals and private dorm room are provided, travel is reimbursed)

Other: A 2-week summer camp for 7–11 year olds.

Link: https://epsiloncamp.org/jobs

Students:

└─ Year/Semester

### Year/Semester

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#### └─ Year/Semester

# Graduate Research Fellowship

Eligible: Everyone who has passed their quals.Time: The academic year (fall and spring semester)Application: We usually get the notification by the middle of December, it is beneficial to start the documents earlier. The department chooses two students (one pure, one applied) who will then apply to the grad school.

Deadline: Departmental: first week of January

Documents: Statement of purpose (really general), two letters of recommendation, CV, letter from the department chair

Money: \$18700 plus tutition benefit (2020)

Link: https://gradschool.utah.edu/tbp/ graduate-fellowship-opportunities/

# University Teaching Assistantship

Eligible: Everyone (shared applications possible)Time: The academic year (fall and spring semester)Application: We usually get the notification by the middle of December, it is beneficial to start the documents earlier. The department chooses two students who will then apply to the grad school.

Deadline: Departmental: first week of January

Money: \$18700 plus tutition benefit (2020)

Other: The department will choose two students (one pure, one applied) to suggest to the grad school.

Link: https://gradschool.utah.edu/tbp/ graduate-fellowship-opportunities/

Students: Allechar S, Anna N

# **RTG** Fellowship

Eligible: US citizens and permanent residents in Algebra, Geometry, and Topology

Time: One or two semester

Application:

Documents: Statement of purpose (half a page), letter/email of recommendation of a faculty member

Money:

Other: You have better chances if you are involved in RTG activities (Seminar, Conference, Speaker series,...). If you are not involved in any of these, you might be required to.

Students: Peter M

Year/Semester

# **Teaching Related Project**

#### Eligible: Everyone

Time: During one semester, it should take about 15 hours of work.

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- Application: If you have an idea of a project talk to the corresponding course coordinator.
  - Money: Replaces the hour in the tutoring center.
  - Other:

Students: Sabine L



#### Year/Semester

# Los Alamos National lab: Graduate Research Assistant Program

Eligible: Everyone

Time: Year-round

Application:

Money: \$24.35–\$31.75 per hour (depending how far along in the degree)

Link: https:

//www.lanl.gov/careers/career-options/
student-internships/graduate/index.php

# NSF Graduate Research Fellowship Program

Eligible: US citizens and permanent residents in their first or second year of graduate training (including master program)

Time: Three years, which can be taken during total of five

Application:

Deadline: End of October

Money: \$34000 per year

Documents: Three letters of recommendation, research statement, personal statement

Students: Keshav P, Erin L

Eligible: Students in Math-Bio who passed their oral exam.

Time: Fall, Spring and Summer (changes depending on when they get the funds)

Application: Expect an announcement late summer/early fall.

Documents: Research statement and letter of recommendation.

- Money: Stipend, Insurance, tuition and travel to one (possible more) conference
  - Other: This is renewed on a year by year basis, so there is no guarantee that that this scholarships will continue to exist.

Students: Jake M

# DOE Computational Science Graduate Fellowship

Eligible: US citizens or permant residents, first year graduate students in applied math

Time: Year-long

Application:

Deadline: January 15, 2020

Money: The fellowship provides four years of support, but must be renewed each summer.

link: https:

//www.krellinst.org/csgf/about-doe-csgf

# Womens Congressional Policy Institute Fellowship

Eligible: Graduate students or those graduated within 2 years who identify as women

Time: January to July

Application:

Money:

Link: https://www.wcpinst.org/our-work/ congressional-fellows/

Students: Rebecca H

### Travel

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Opportunities

— Travel

## Graduate Student Travel Assistance Award

# Eligible: Everyone (but only once) if you are presenting research work.

Application: Through the Website.

- Money: Up to \$500 from the grad school with the department matching the amount.
  - Link: https:

//gradschool.utah.edu/current-students/
graduate-student-travel-assistance-award/

Students: Janina L

— Travel

# Early Career Professional Development Program

Eligible: First and second year graduate students.

Application: Through the Website.

- Money: Up to \$500 from the grad school if there is funding from the department or another source.
  - Other: You have to demonstrate your intent to participate in the workshop.
    - Link: https://gradschool.utah.edu/currentstudents/graduate-student-travel-assistance-award/

Students: Janina L

- Travel

# ASUU Travel Funding

#### Eligible: Everyone

Application:

Money: Everything but food (travel, lodging, conference fee), up \$600 but everything above \$300 should have extenuating circumstances

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Other:

Students: Rebecca H

Funding Oppo	rtunities
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— Travel

# Travel Support from the Department

#### Eligible: Everyone

- Application: Email Paula (who will tell you who is in charge during that year)
  - Money: The estimate you give them. Make it a little bit higher then you expect, since they might not allow you to increase it.

- Travel

# **RTG Travel Support**

Eligible: US citizens and permanent residents in Algebra, Geometry, and Topology

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Application:

Money:

└─ Other

## Other

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-Other

# Teaching Bridge class in the Department

Eligible: Everyone

Time: One or two weeks at the beginning or just before the semster.

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Application: Ask the course coordinators.

Money: Depends on the class.

Other: Classes: 12, 13, 14, 15

Students: Janina L

— Other

# **EDGE Summer Session**

# Eligible: Women who are starting grad school or finishing their first year.

Time: Four weeks (June 1–26, 2020)

Application:

Deadline: March 13, 2020

Money: Stipend plus travel, room and board.

Link: https:

//www.edgeforwomen.org/summer-session/

Students: Samantha H

# MSRI Summer Graduate School

#### Eligible: Everyone.

Time: Two weeks.

- Application: The deadline is early December, admitted on frist-come first-serve basis until February. Students are nominated by the department.
  - Money: Reimbursement of the costs.
    - Link: http://www.msri.org/web/msri/scientific/ workshops/summer-graduate-school

Students: Samantha H

# Graduate Student Mathematical Modeling Camp

#### Eligible: Everyone.

Time: One week (June 10–13, 2020)

Application: Deadline in mid-April, but the earlier the better.

- Money: Possible reimbursement of the costs. Lodging and meals provided.
  - Other: Inderdisciplinary problem solving.
    - Link: https://www.mathsci.udel.edu/events/ conferences/gsmmc-2020

# IMA Special Workshops

#### Eligible: Everyone.

Time: One or two week.

Application:

Deadline: The deadlines vary, e.g. for a math-to-industry bootcamp it is February 28, 2020

Money: Food per diem, travel cost and \$800 stipend

Link: https://www.ima.umn.edu/special-workshops Students: