Workshop on NSF-GRFP

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- The National Science Foundation (NSF) is a United States government agency.

- It supports fundamental research and education in all the non-medical fields of science and engineering.

- The NSF funds approximately a quarter of all federally supported basic research conducted by the United States' colleges and universities. In mathematics the NSF is the major source of federal funding (Wikipedia).

- Web-page: https://www.nsf.gov/

NSF budget request for 2018

- Total: $6.7 billion (decrease of $841 million from FY 2016).

- DMS (Division of Mathematical Sciences): $234 million (decrease of $24 million).

- GRFP (Graduate Research Fellowship Program): $247 million (decrease of $86 million).

- The National Science Foundation Graduate Research Fellowship Program (NSF-GRFP) is an annual grant that is awarded by NSF to doctoral-level students in the natural, social, and engineering sciences at US institutions.

- 2,000 new Fellows for 2017 (out of 13,000 applicants). In the future it intends to support 1,000 new Fellows (?).

- Benefits: Three-year annual stipend of $34,000 plus $12,000 towards the costs of tuition and fees (paid to the institution).

- Web-page: https://www.nsfgrfp.org/ (Video!)
  More details (Program Solicitation):
  https://www.nsf.gov/pubs/2016/nsf16588/nsf16588.pdf

- 25 fellowships went to applicants from UCLA in 2017 (out of 2069). None of them was in the Mathematical Sciences.

- A total of 86 went to Mathematical Sciences.

- Three of our graduate students received an honorable mention (total 1740).

- It is a realistic goal that the Dept. of Mathematics at UCLA should receive 1–2 fellowships each year.

Why should I apply?

- Last year one out of every 6–7 applications was funded; so the chances are fairly decent.

- Preparing an application is not too much effort. It is also a good learning experience for your professional development.

- Submitting an application helps mathematics as a field and benefits the department.

How do I apply?

- Eligible: US citizens and permanent residents. One application only. First or second-year graduate students (max. of 12 months in grad. school by August 1, 2017).

- Deadline for Mathematical Sciences: Friday, October 27, 2017, 5pm local time. Awards announced the following April.

- Application has to be submitted through FastLane (internet based system of NSF; registration required).

Four application components

- 1. Academic transcripts.

- 2. Personal Statement (max. 3 pages).

- 3. Graduate Research Plan Statement (max. two pages including references).

- 4. Three letters of recommendation (max. 2 pages).

Merit Review Criteria

Important

Both statements have to explicitly address NSF's "Merit Review Criteria": Intellectual Merit and Broader Impacts.

- Intellectual Merit: the potential to advance knowledge.

- Broader Impacts: potential to benefit to society.

Personal statement

Personal, Relevant Background and Future Goals Statement (max. 3 pages):

- Outline your educational and professional development plans and career goals.
- How will graduate school prepare you for a career that allows you to contribute to expanding scientific understanding as well as broadly benefit society?
- Describe your personal, educational and/or professional experiences that motivate your decision to pursue advanced studies in mathematics. Include specific examples of activities.

A good starting point: Update and modify personal statement from your grad. school application.

Graduate Research Plan Statement

Max. 2 pages.

- Present an original research topic that you would like to pursue in graduate school.
- Describe the research idea and your general approach.
- Include important literature citations.
- Address the potential for broader impacts.

A good starting point: REU and other research projects, summer workshops, a graduate course in an interesting area.

This is not read by experts in the area; so keep it simple!

Three letters of recommendation

Suggestions:

- For first-year students: Two letters from your undergraduate institution and one from UCLA(?).

- For second-year students: two or three from UCLA and maybe one from your undergraduate institution(?).