PROPOSAL-WRITING WORKSHOP

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Transparencies downloadable from
www.math.nyu.edu/faculty/kohn
WHY SEEK GRANTS?

• Money (summer salary, travel, hardware)

• Prestige (internal and external)

• Benefit of the process itself
TYPES OF GRANTS

- NSF single investigator grants
- NSF – other types of grants
- NRC for labs e.g. NIST
- DOD agencies: ARO, AFOSR, ONR, DARPA
- DOE, NASA, NIH, NSA, other
SPECIAL NSF PROGRAMS

• Postdoc (US applicants; deadline 3rd Friday of October)

• Interdisciplinary grants (deadline 4th Monday of November)

• CAREER (for tenure-track faculty only)
WHO CAN APPLY?

- NSF Postdocs and NRC: check citizenship requirements

- NSF/DOD: PI must be faculty (e.g. your mentor)

- No double-dipping
WHAT KIND OF WORK IS FUNDABLE?

• NSF: main criterion is quality

• Other agencies: every program has areas of focus

• Listen/talk to program managers
ESSENTIAL ELEMENTS OF ANY PROPOSAL

- General discussion for non-specialists

- Specific discussion for specialists

- Near-term goals: reasonably precise, with an indication of how they will be achieved

- Long-term goals: grander, but still with some basis in reality

- Why are your goals interesting?

- Why are you qualified to achieve them?
HOW DECISIONS ARE MADE

• Peer vs. Panel vs. Program Manager

• Criteria:
  – Quality of the person
  – Importance of the topic
  – Quality of the proposal
  – Impact (on science, students, etc)
WHICH NSF PROGRAM?

- Applied Math vs Computational Math vs Analysis

- If in doubt, alert relevant program managers

- Target dates are not deadlines, but . . .
MISCELLANEOUS TIPS ON PROPOSAL PREPARATION

• Link to your past and present activities.

• Do something new.

• For NSF: discuss (explicitly) “broader impact” as well as “intellectual merit.”

• Write science not fluff.

• Put your preprints on the web, and refer to them.
• For NSF: present yourself, not just your research.

• Ask around for examples you might emulate.

• Think about who will be judging your proposal, and write for them. But do not assume your proposal will be read only by experts.

• Do a good literature search. Try to be current on relevant preprints as well as published work. No proposal ever had too many references.
• Talk to friends and colleagues. Do at least a little work on the project, to be sure it makes sense and to report some preliminary progress.

• Include some ideas of your own. You should be slightly concerned about the reader stealing your ideas.

• Don’t be underambitious or overambitious.

• Develop and express a vision of your own.
• Ask friends or colleagues to comment on your first draft. Expect to make changes.

• Do a professional job: spelling errors, grammatical errors, or latex errors suggest the proposal was prepared with undue haste.

• Write well. Every sentence should be grammatical and clear. Avoid sentences that are too long or too short. Each paragraph should have a purpose. The whole proposal should be organized logically.