



National Science Foundation

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American Physical Society Meeting

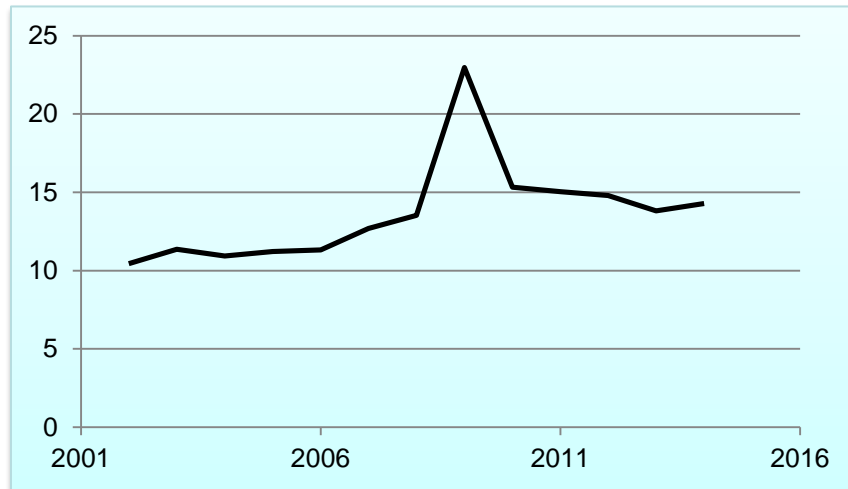
Baltimore, MD– April, 2015

Budget news

Progression of NSF budget in the last three fiscal years (FY) and FY16 request (in millions):

	FY13 Actual	FY14 Actual (Δ from last FY)	FY15 Estimate (Δ from last FY)	FY16 Request (Δ from last FY)
NSF	\$6,902	\$7,131 (3.3%)	\$7,344 (3.0%)	\$7,724 (5.2%)
MPS Directorate	\$1,249	\$1,268 (1.5%)	\$1,337 (5.4%)	\$1,366 (2.2%)
PHY Division	\$250	\$267 (6.8%)	\$275 (3.0%)	\$277 (0.7%)
Gravity programs	\$13.8	\$14.3 (3.6%)	about the same	

Gravity programs
(in millions)



Division of Physics: Investigator-Initiated Research Project

(NSF 14-576 soon to be NSF 15-XXX)

- Starting in 2014, **all proposals** submitted to the Division of Physics programs (*LIGO Research Support, Theor. Grav. Physics, Exp. Grav. Physics, etc.*) **have to go through this solicitation!**
- This includes:
 - **Conference** proposals.
- This does not include:
 - **CAREER, MRI, INSPIRE, RUI**, etc. and any other proposal that pertains to an NSF-wide solicitation.
 - **Supplements** and **EAGER**. You can use NSF 15-1 GPG
- It has **Deadlines** (instead of Target Date).
 - All three Grav. Physics programs: **Oct 28, 2015**
- See Auxiliary slides for more information



Other programs' deadlines

- **INSPIRE: New revised solicitation**
 - Only Track 1: \$1M max / Duration up to 5 years
 - Support of two or more Prog. Directors from different disciplines
 - No LOI needed / No Deadlines (similar to EAGERs)
- **SI2: SSE (elements-small), SSI (interdisc.-larger), S2I2(institutes- largest):**
 - Part of CIF-21: Div. of Advanced Cyberinfrastructure (ACI) solicitation
 - Deadlines: **Many!**
- **MRI**
 - New revised solicitation in 2014
 - Major change: In **Acquisition** proposals the 70% cost requested from NSF can only be used for **equipment**: personnel costs (if any) have to come from the cost-sharing 30%.
 - Deadline: **January 13, 2016**
- **CAREER**
 - Deadline: **July 23, 2015**



DFG-NSF Lead Agency Agreement

New DFG-NSF opportunity for collaborations between US and German groups in Gravitational Physics (experimental, computational & theoretical projects)

- This works in a way similar to the NSF “Collaborative Research” proposals: single proposal core with two sets of budgets, CVs, etc.
- Researchers decided which is the “lead” agency (NSF or DFG)
- The Lead Agency conducts the review process with participation of officers from the non-lead agency (i.e., single review simplifies administrative workload)
- It incentivates international collaborations for small groups
- If interested, contact me (pmarrone@nsf.gov) and read **NSF solicitation 15-033**



Ideas Lab – “Measuring Big G”

The Newtonian constant of gravitation, G , is the fundamental constant of physics known with the least precision (CODATA relative uncertainty = $1.2 \cdot 10^{-4}$). Measurements made in the past decade and a half show a spread of values larger than their individual estimated errors, creating a discrepancy at a level of 10σ .

Ideas Lab

- Special NSF mechanism to promote new ideas and projects
- Interested PIs send a two-page application to participate in the workshop: No expertise in measuring G required!
- Invited applicants spend a week with Mentors at NIST: The proposed novel ideas get refined, clarified, evolved, etc.
- The top selected projects are invited to submit design concept proposals to the Exp. Gravity program for funding.
- Announcement expected in late Spring. Workshop tentatively planned for early Dec. 2015.



Reducing the PI's administrative workload

- National Science Board report “*Reducing Investigators` Administrative Workload for Federally Funded Research*”
 - Among the findings: on average 42% of the PI's time is spent on administrative tasks. **This has not changed since the last survey in 2005.**
- Do you have any ideas on what Physics Division can do?
 - Email me (pmarrone@nsf.gov)
- Example: Proposal preparation template
 - It provides a quick rundown of what is needed in each proposal section
 - Highlights the most common mistakes
 - Informs of changes in the GPG in the past three years



Committee of Visitors 2015

- In February 2015, members of the Physics community convened at NSF to review the activities of Physics Division in the past 3 years.
- Ten subpanels were assembled to review each program management and portfolio (including Gravitational Physics).
- The report is open to the public and can be found (soon) in the NSF Physics Div. homepage.
- Physics Division is currently redacting a response to the CoV questions and this will be made public in a few weeks.



Writing proposals: Mentoring program

- New Mentoring Program: The goal is to make the expertise of senior researchers on proposal writing to young investigators
- How does it work?
 - The Mentee requests a Mentor (email me at pmarrone@nsf.gov).
 - I will send you a list of Mentor Volunteers. You can contact anyone you like without identifying them to NSF.
 - Mentor will read your proposal and provide feedback once. **Send the proposal timely!** Mentors are busy people.
 - NSF accepts no responsibility on the interaction/outcome of the program!



For the latest news:

<http://www.nsf.gov/div/index.jsp?div=PHY>

[NSF 14-576](#)

[DFG-NSF Agreement](#)

[2015 CoV Report](#)

Email any questions to
pmarrone@nsf.gov
or call (703)292-7372

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Physics (PHY)

PHY Replaces DCL with Solicitation NSF 14-576

The Physics Division has issued a solicitation ([NSF 14-576](#)) for FY2015 that replaces its prior annual Dear Colleague Letter. The solicitation follows most of the requirements in the Grant Proposal Guide, but has additional requirements that relate primarily to proposers who anticipate having multiple sources of support, and proposals involving significant instrumentation development. The solicitation also has deadlines instead of target dates. All proposals submitted to the Physics Division that are not governed by another solicitation (such as CAREER) should be submitted to this solicitation; otherwise they will be returned without review.

DFG collaboration on Gravitational Physics

The Physics Division has issued a Dear Colleague Letter ([NSF 15-033](#)) to announce a new opportunity for collaborations between US groups and their German counterparts on Gravitational Physics. The Deutsche Forschungsgemeinschaft (DFG) and NSF have recently signed a lead agency agreement that outlines a joint co-review process for projects from international collaborations in the areas described in the Gravitational Physics programs. These proposals will be reviewed in competition with other proposals received in the same submission window by one of the agencies which will serve as the lead agency. Note that there are no separate funds available for these efforts; proposals must compete with all other proposals within the program and must succeed on the strengths of their intellectual merit and broader impact. The result of the review process will be shared between the agencies and support will be granted when both DFG and NSF recommendation for funding.

PHY Int'l Activities - Potential Co-Review

The Physics Division has issued a Dear Colleague Letter ([NSF 14-099](#)) to announce the guidelines for "International Activities within the Physics Division - Potential International Co-Review". The DCL outlines a possible coordinated review of projects involving international colleagues and counterpart funding organizations where a mutual review and funding process is beneficial to the advancement of Physics research. Contact with the appropriate NSF Program Officer is a necessary first step and additional time for this coordination must be allowed. Proposals requesting co-review will be competing with all other proposals in that area and must succeed on the strengths of their intellectual merit and broader impact.

PHY Home

- About PHY
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MPS Organizations

- Astronomical Sciences (AST)
- Chemistry (CHE)
- Materials Research (DMR)
- Mathematical Sciences (DMS)
- Physics (PHY)
- Office of Multidisciplinary Activities (OMA)



Auxiliary slides

Solicitation NSF 15-XXX

“Division of Physics: Investigator-Initiated Research Projects”

As of today, the new version of this solicitation has not been released. This will happen sometime during the Summer 2015. Check it out for an update on the specific requirements.



On Fastlane, choose solicitation
NSF 15-XXX
(formerly NSF 14-576)

Do **NOT** choose
NSF 15-1 GPG or anything else.
Prop. will be **returned w/o review!**

Choose the Program in the next
screen

Program Announcement / Solicitation Number Selection

Select a Program Announcement or, if not in response to a program announcement, choose 'NSF 14-1 GPG: Not in response to a program announcement/solicitation'. If the program announcement is within multiple divisions or programs, the next page will allow you to select from the associated divisions and programs. If the program announcement is associated with only one division and program, the unit of consideration will automatically be selected.

There are currently 305 Program Announcements/Program Descriptions

Program Announcement / Solicitation Number

Select one of the items below.

NSF 14-1 Grant Proposal Guide - GPG
NSF 14-579 Facilitating Research at Primarily Undergraduate Institution...
NSF 14-578 Science of Science and Innovation Policy Doctoral Dissertat...
NSF 14-577 Advanced Technological Education
NSF 14-576 Division of Physics: Investigator-Initiated Research Project...
NSF 14-575 US-Japan Big Data and Disaster Research
NSF 14-574 Methodology, Measurement, and Statistics
NSF 14-572 Tribal Colleges and Universities Program
NSF 14-571 NSF/Intel Partnership on Cyber-Physical Systems Security and...

Select

Go Back

Unit Selection Lists

Select the organizational unit you wish to consider your proposal from **either** the Division selection box (if you want to review the NSF Divisions and associated Programs) **or** the Program selection box (if you know the Program you wish to select).

Note: Some program announcements will be associated with multiple Divisions and Programs. In these cases, a logical step-by-step selection process is provided.

Divisions

Select a Division within NSF 14-576

Directorate: MPS Directorate for Mathematical & Physical Sciences
PHY-Division of Physics

Programs

Select a Program within NSF 14-576

Accelerator Science
ASTROPHYSICS & COSMOLOGY THEOR
ATOMIC & MOLECULAR PHYSICS
ATOMIC THEORY
COMPUTATIONAL PHYSICS
ELEMENTARY PARTICLE ACCEL USER
ELEMENTARY PARTICLE THEORY
GRAVITATIONAL EXPERIMENTS
GRAVITATIONAL THEORY

Select Program Show the divisions in this program.



What are the exceptions?

- RUI proposals
Use the RUI solicitation instead but **follow the new Deadlines** for each Physics program
- CAREER, MRI, INSPIRE, SI2, etc.
NSF-wide solicitations or solicitations from other Divisions (AST, ACI, etc.) are unaffected.
- Supplement proposals and EAGER are unaffected (i.e., you can use NSF 15-1 GPG)
- Conference proposals are **not** excepted! They also have to be submitted through NSF 15-XXX and, thus, before Oct 28, 2015.



What is different?

- The solicitation has **Deadlines** instead of Target Dates
 - Gravitational Physics: **Oct. 28, 2015** (and last Wedn. in Oct. thereafter)
 - PIF Computational Physics: **Dec. 3, 2015** (and first Thursday in Dec. thereafter)
- PIs are strongly encouraged to submit **single proposals** for possible co-review **instead of multiple similar proposals** to different programs.



Additional Criteria I

- PIs who have or anticipate **additional concurrent sources of support should clearly explain the differences** between this proposal and the other awards (including ALL grants regardless of the agency of origin)
 - Where? **Project Description** or **Current & Pending** (you may need to upload a separate file in this case)
 - *“The proposal review process will include an assessment of the proposers’ ability to carry out the proposed research in light of these commitments”*
 - PIs with similar proposals for different agencies will be expected to withdraw all other applications should one of them be funded



Additional Criteria II

- For proposals involving development or construction of **complex instrumentation** (typically above \$1M), the following aspects will be assessed by during the review:
 - Ability of the proposers to deliver within the proposed budget
 - Cost, schedule and risk mitigation management (project management documentation should be uploaded as a Supplementary Document)
 - **Contact the corresponding NSF Program Officer for details**



Additional Criteria III

- **List of collaborators** that do not fit in the Bio sketches (such as those of large collaborations) should be included as Supplementary Document
 - For those who belong to the LSC, identify those members with whom the PIs and Co-PIs work closely (i.e., publish non-full-LSC-authorship papers, etc.).
 - The full list of LSC **is not required** for proposals submitted to LIGO Research Support. However, do include any other affiliation (i.e., ANTARES, Ice Cube, etc.)

