National Science Foundation

NSF/MPS Grant Opportunities

NSF headquarters in Alexandria, VA

Keith R. Dienes
Division of Physics (PHY)

Hans Krimm
Division of Astronomy (AST)

Leonard Spinu
Division of Materials Research (DMR)

http://www.nsf.gov/

AAPT New Faculty Workshop
November 2, 2017

National Science Foundation

NSF has moved!

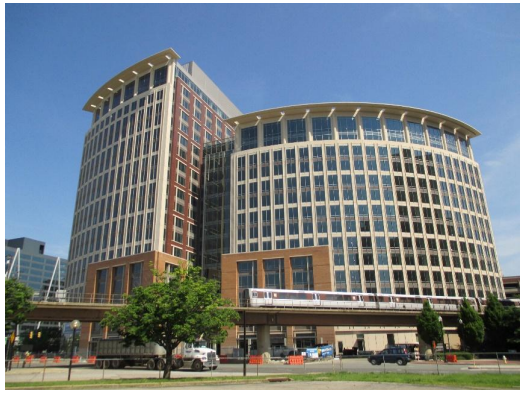
… from Arlington, VA to Alexandria, VA

Before: → **Now:**

25 mins to/from DCA

4201 Wilson Blvd.
Arlington, VA 22230

10 mins to/from DCA

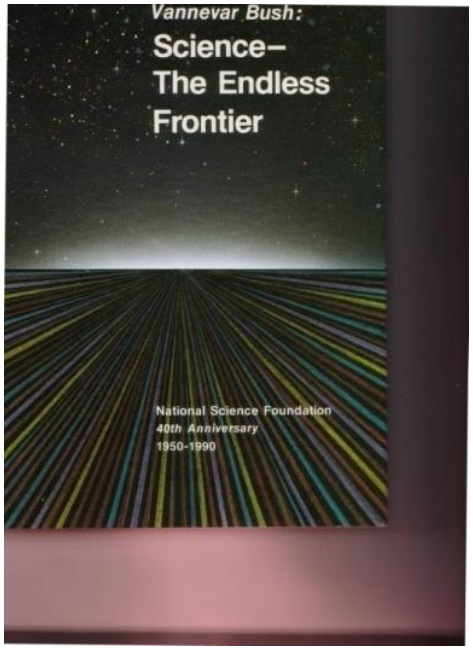


2415 Eisenhower Ave.
Alexandria, VA 22314

National Science Foundation

NSF Vision and Goals

- Vision: A nation that creates and exploits new concepts in science and engineering and provides global leadership in research and education
- Mission: To promote the progress of science; to advance the national health, prosperity, and welfare; to secure the national defense …
- Strategic Goals:
  - Transform the frontiers of science and engineering
  - Stimulate innovation and address societal needs through research & education
  - Excel as a Federal science agency



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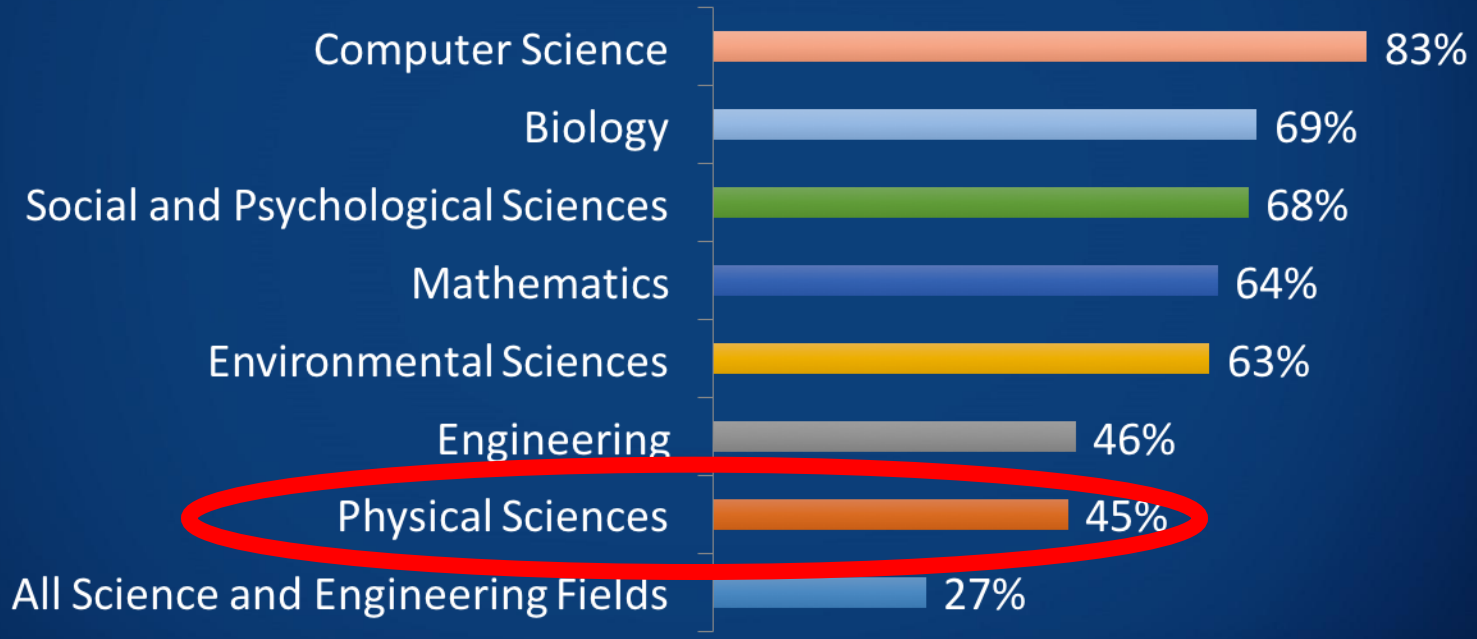
NSF Support of Academic Basic Research in Selected Fields

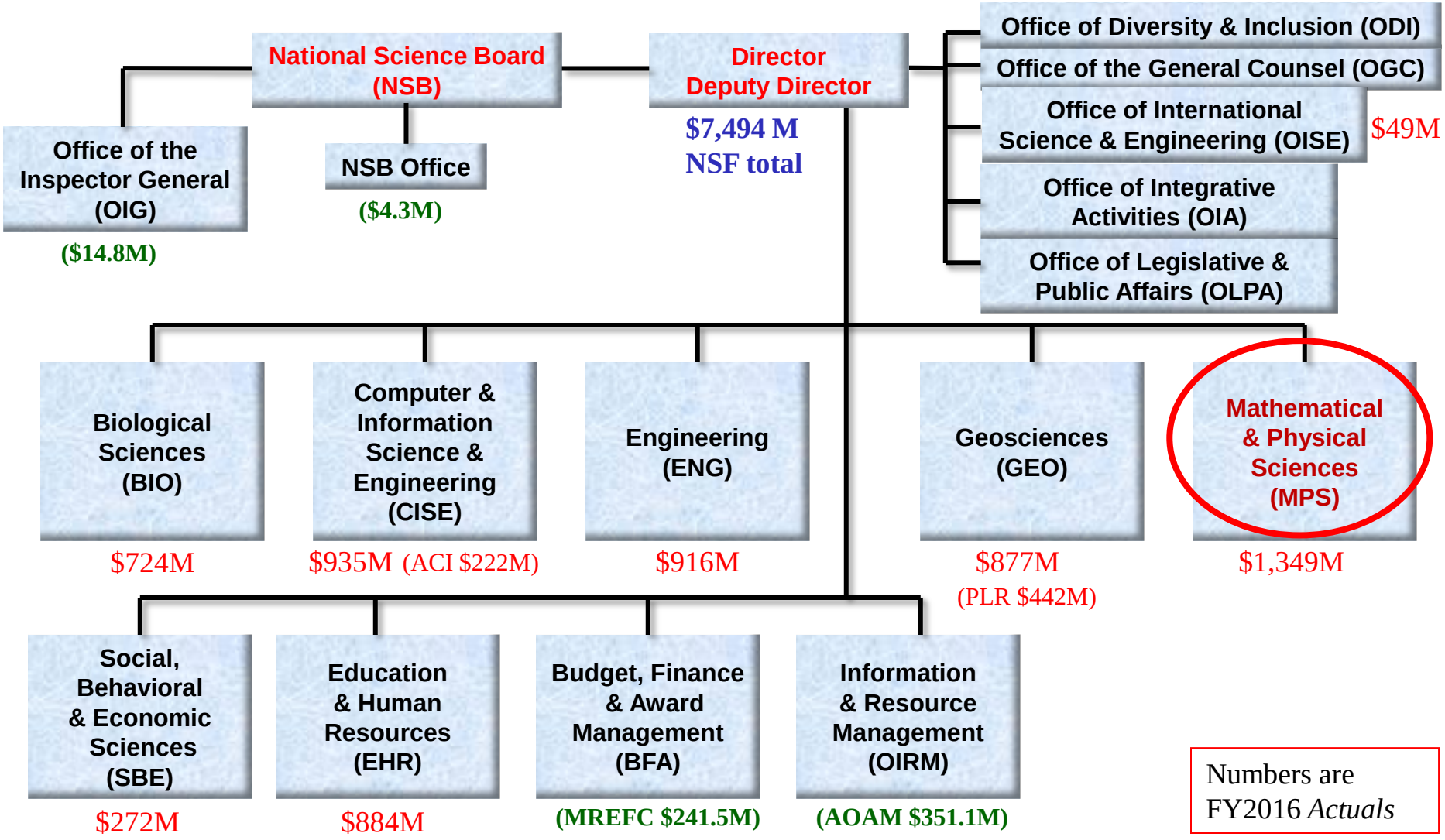
(as a percentage of total federal support in 2015)



Note: Biology includes Biological Science and Environmental Science. Biology and Psychological Sciences exclude National Institutes of Health funding from the total amount of federal support.

Source: NSF/National Center for Science and Engineering Statistics, Survey of Federal Funds for Research and Development

NSF Organization Chart



Numbers are FY2016 *Actuals*

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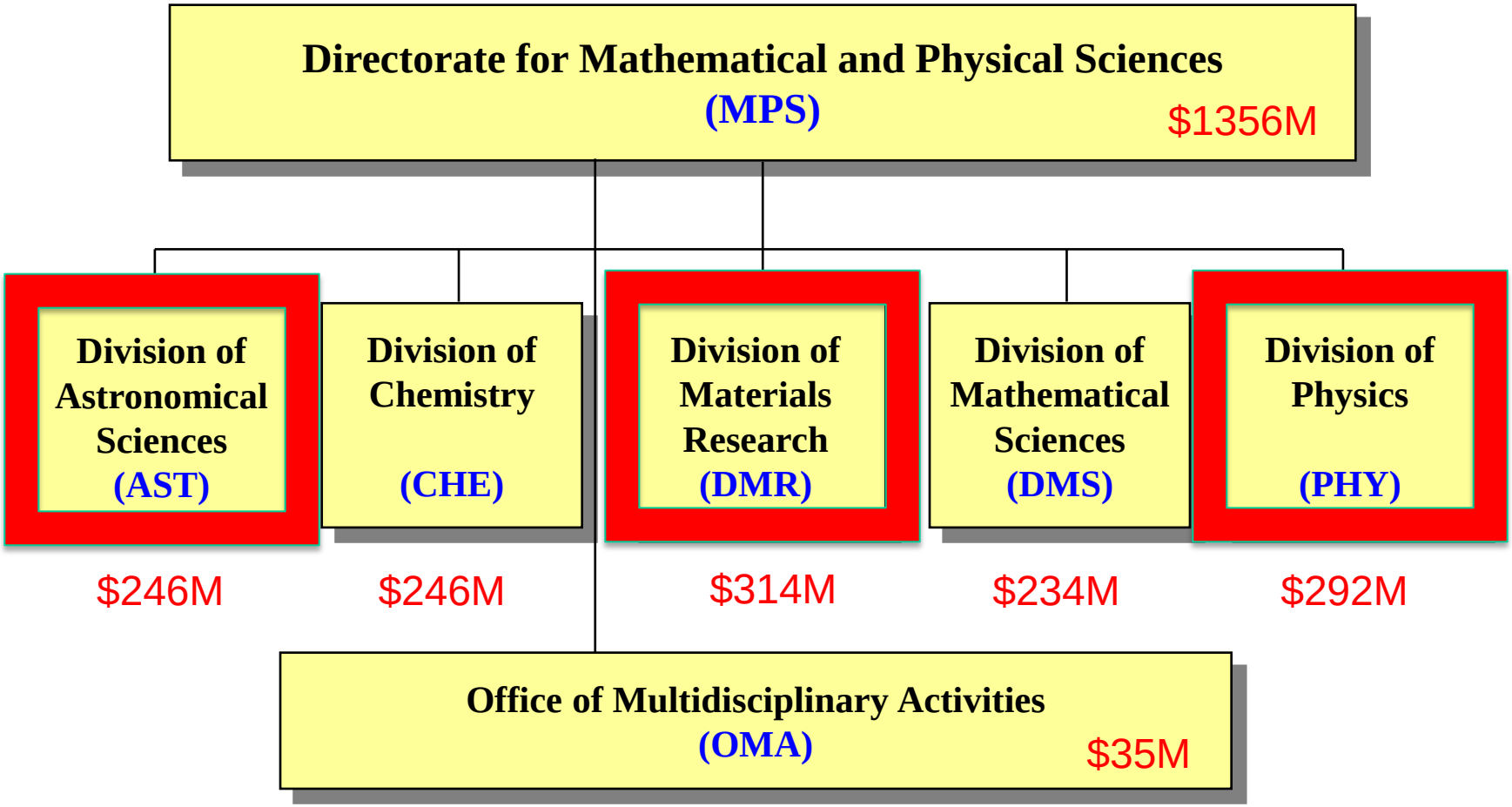
Directorate for Mathematical and Physics Sciences (MPS)



Numbers are FY 2017 Actuals

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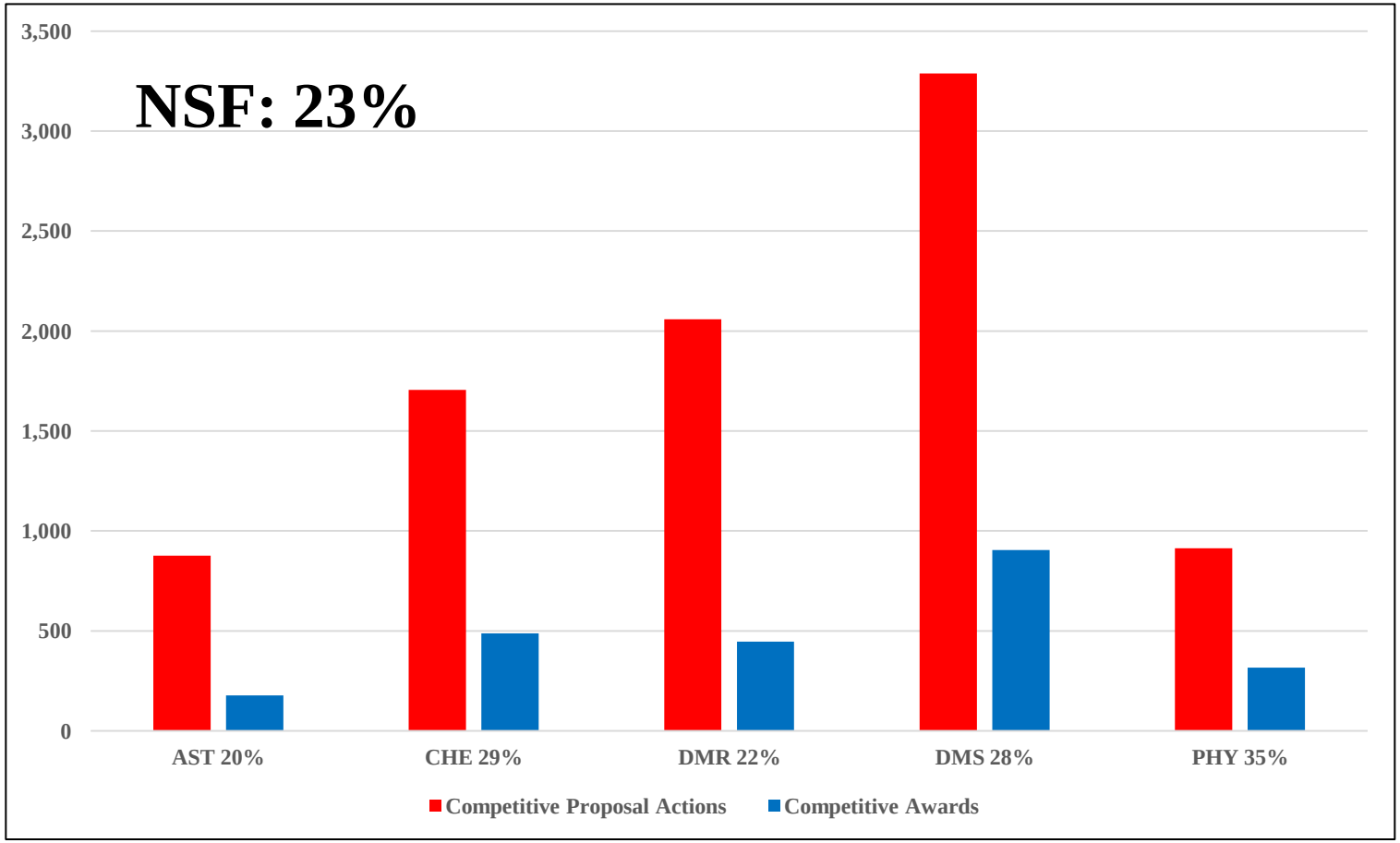
Funding Rates

FY 17



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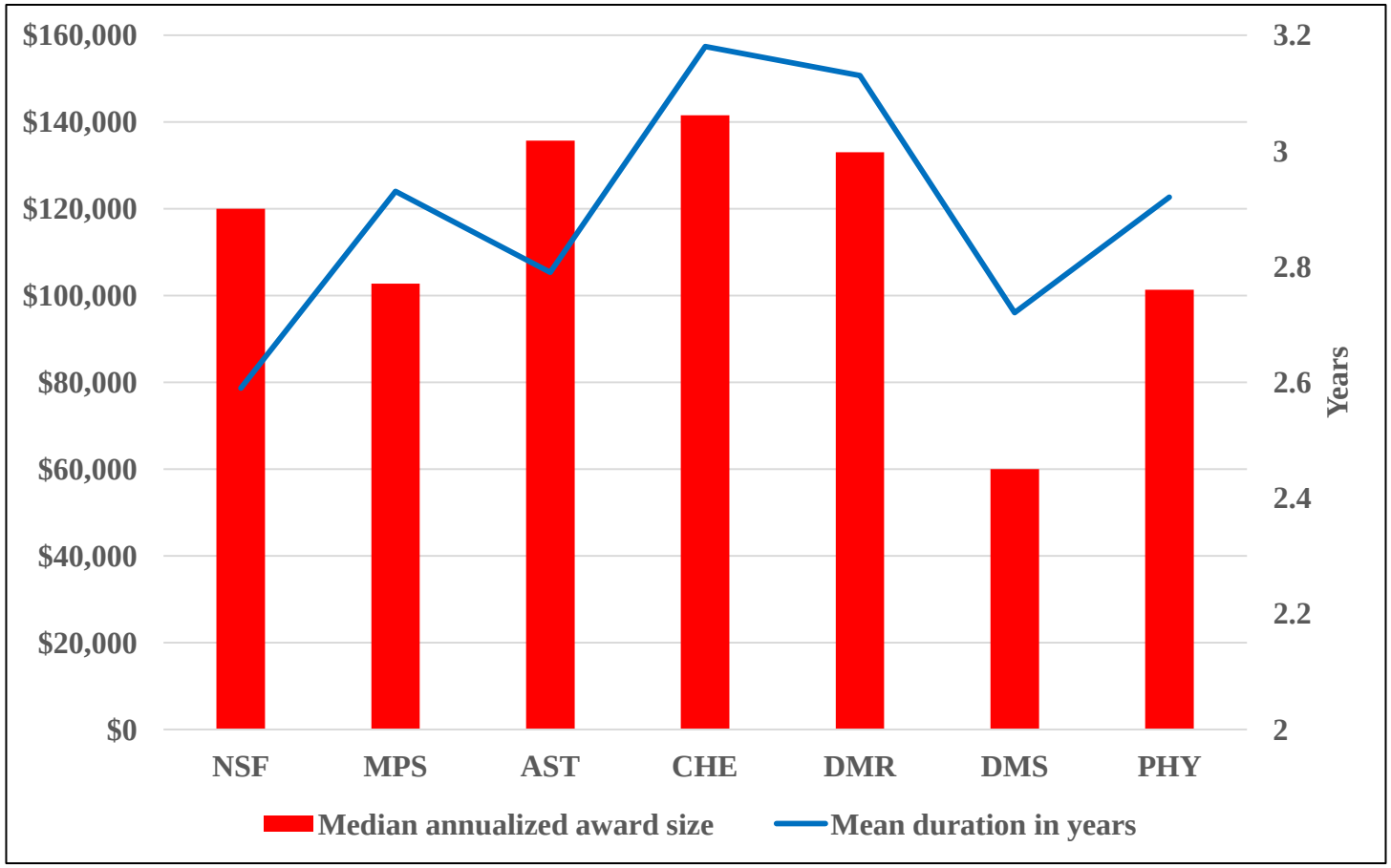
Median Annualized **Award Size** and **Duration**



Award duration 1-5 years
(longer allowed, but rare)

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How to Apply for Funding

In general, you submit a proposal via fastlane.nsf.gov or research.gov to a particular **Solicitation** within a particular Division, specifying a particular Program.

- Designating secondary programs for co-review is OK if your work is inter-cross/disciplinary.
- If your selection is inappropriate, we will try to find the correct intellectual home for your proposal and transfer it internally.

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How to find the right Solicitation and/or Program?

- Investigate Program websites
- Search the Award Database (at nsf.gov) using relevant keywords to see what has already been funded in different programs.
- Talk to your colleagues in similar discipline (but beware that things may have changed).
- ***Read*** the relevant Solicitation.
- Contact the relevant Program Director ?
  - One or two paragraphs describing the project
  - Possible phone call to discuss project

  Not to get a scientific evaluation, but to discuss appropriateness for that Program.

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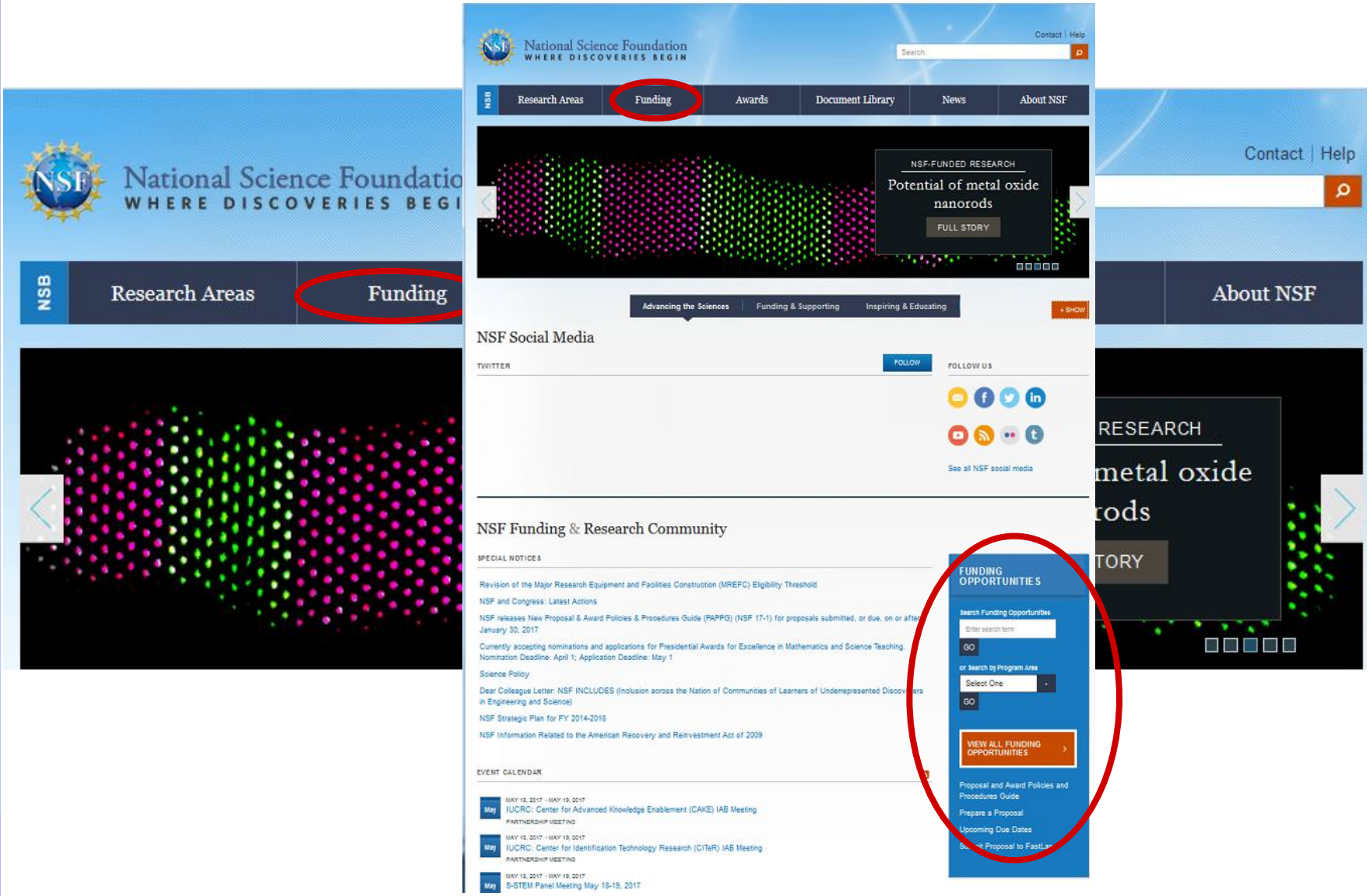
Funding Opportunities www.nsf.gov



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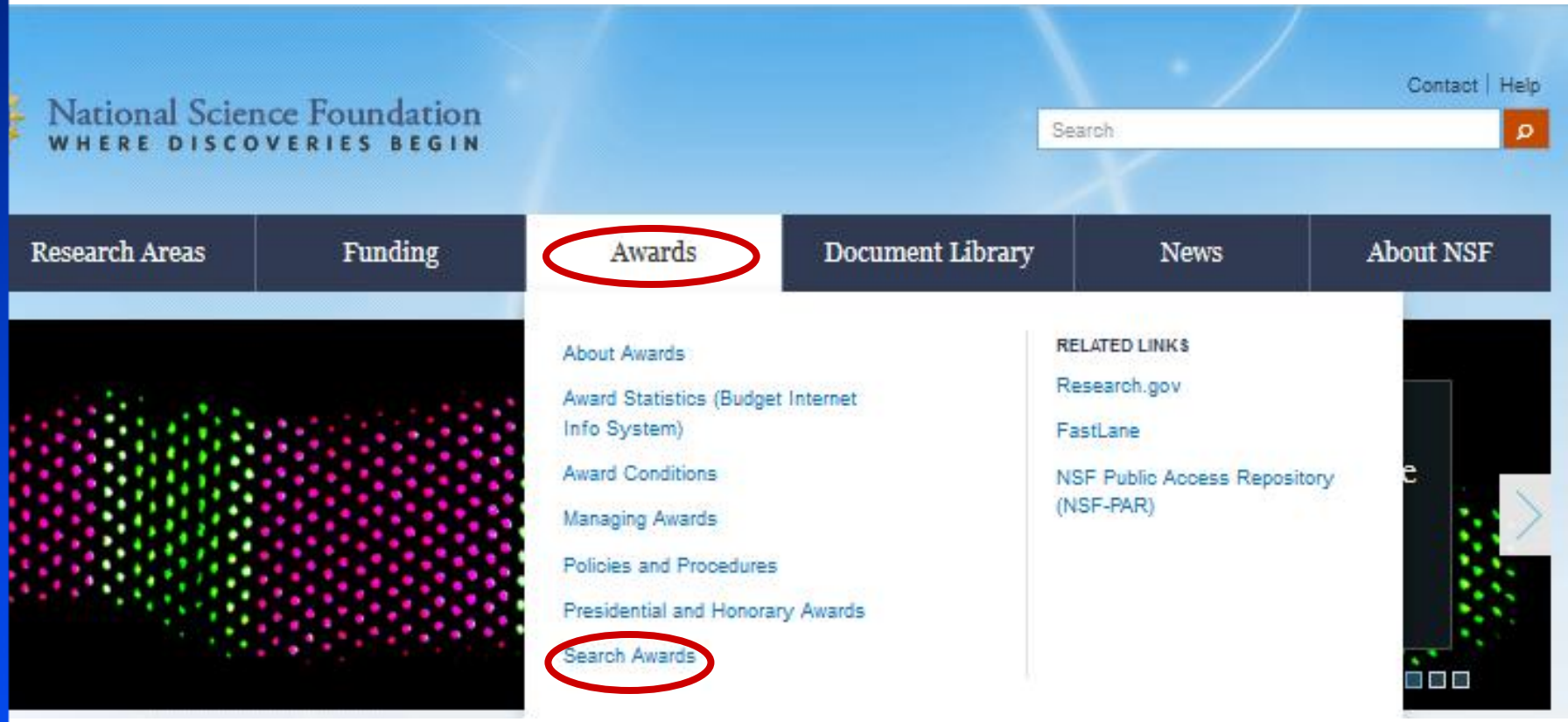
www.nsf.gov – Search Current Awards



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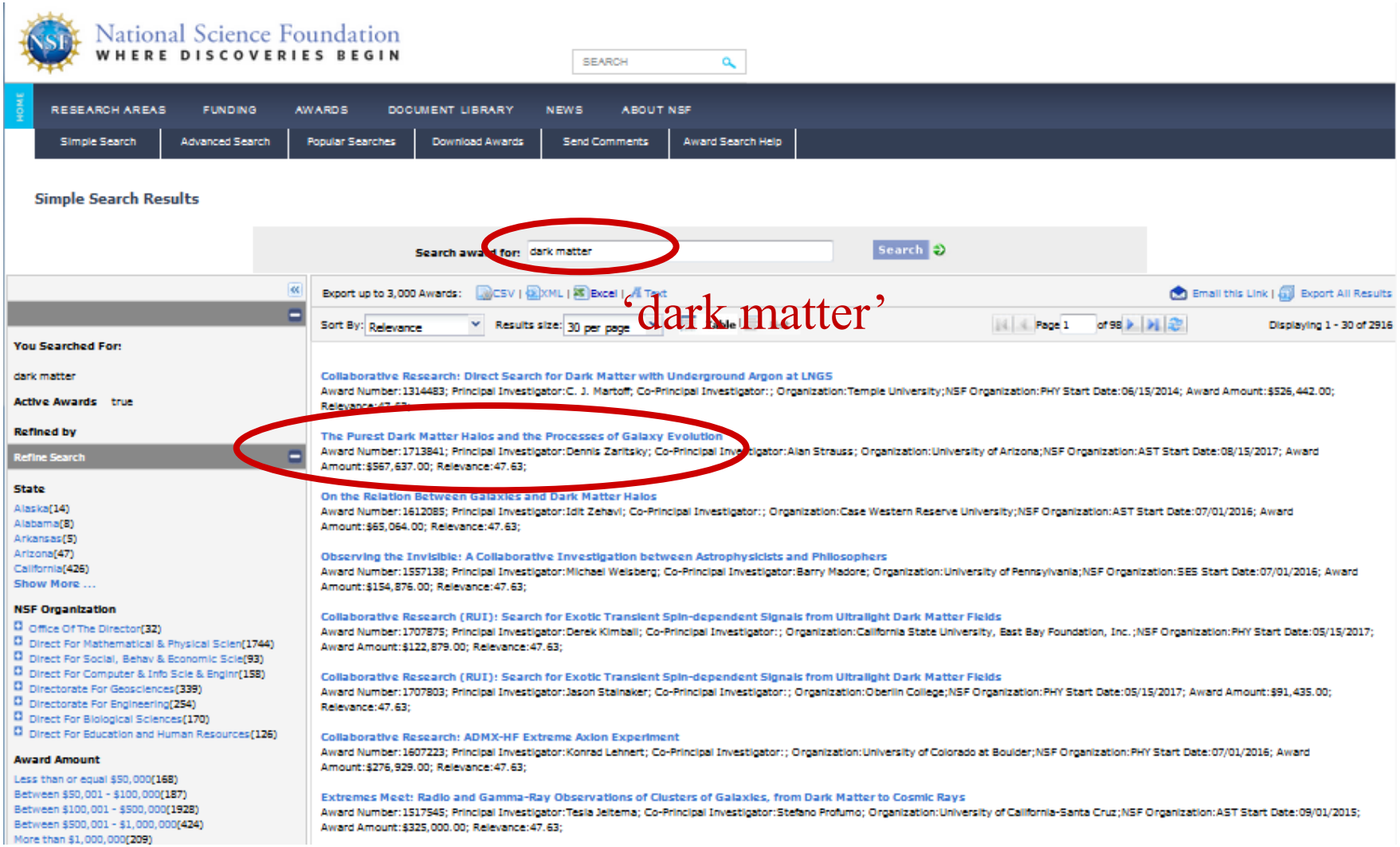
www.nsf.gov/awardsearch



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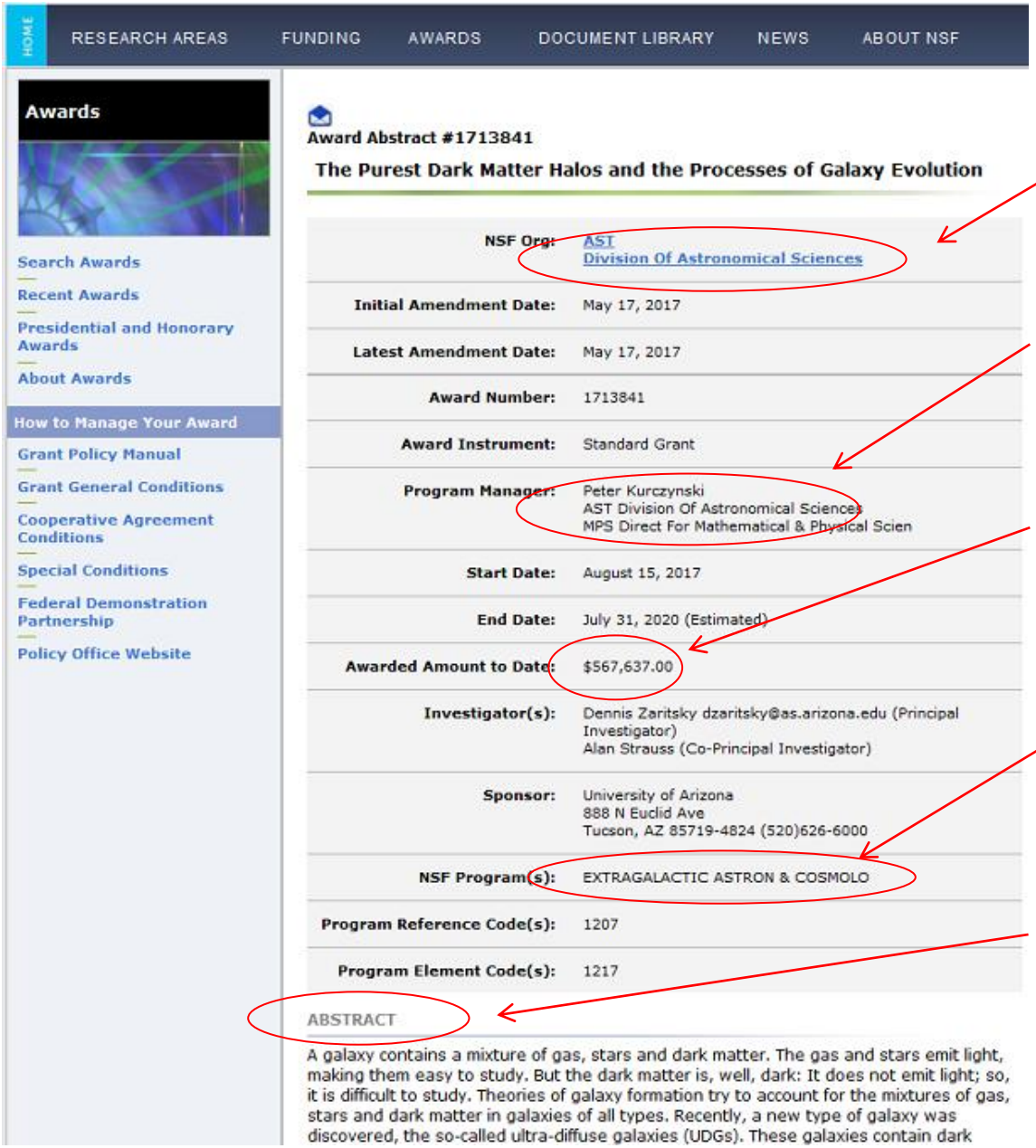

Division that made the award.

Program Director currently managing the award.

Funds allocated to date. See ‘expired’ awards for standard level of investment per award.

Program(s) that funded this award.

Abstract for this award – reviewing abstracts provides information on research scope of the program – *does your research fit?*

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Now you want to begin writing.

- What are the rules?
- Is there guidance as to what is expected?

In general, your proposal must comply with two sets of rules/expectations:

- Those listed in the **PAPPG** (minimal NSF-wide expectations/requirements)
- Those listed in the **Solicitation** (specific to program, may supplement or override the PAPPG).

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Proposal & Award Policies & Procedures Guide

(see link within Fastlane under "Proposals, Awards, Status")

(PAPPG) NSF 17-1

- Contains guidelines for all proposals (except when program Solicitation stipulates otherwise)
- Also provides guidance for Award process, from issuance and administration through closeout
- Also describes NSF organizations and offices most relevant to grantees
- Also provides a list of Statutes and Executive Orders
- Is updated often: make sure you are looking at the most current edition!

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The Solicitation

In Program Announcement/Solicitation, look for:

- Goal of Program
- Eligibility
- Special proposal preparation and/or award requirements
- Deadlines/Target dates/ Submission windows
- Pre/Full proposal

In case of a conflict between the PAPPG and the Solicitation, the Solicitation overrides the PAPPG.

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Parts of an NSF Proposal

- Project Summary and Project Description --- each must explicitly and separately address **Intellectual Merit** and **Broader Impact**
- Project Description -- also include Results from Prior NSF support
- References -- All Authors, Titles of Articles
- Biographical Sketch
- Budget -- your declaration about what you need to complete the proposed research (including overhead, etc.) --- consult with your SRO
- Current and Pending Support declaration
- Post Doc Mentoring Plan – if needed, one page in Supplementary Docs
- Data Maintenance Plan – two pages in Supplementary Docs
- Collaborator & Affiliations List – Single-Copy Document; special format
- Others as needed… see PAPPG

Non-conforming proposals may be returned without review!!!

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Things to consider while writing

- **Why *this* research project?**
- Why you and not someone else?
  - Uniqueness of research, educational opportunities, available facilities...
- What are your strengths?
  - Capture the reviewers' attention in the Summary and Introduction. Make them want to read more.
- *YOU* must convince the reviewer you are worthy of funding
- Express yourself clearly
  - It's not the reviewer's job to figure out what you are trying to accomplish and why. Good expository writing is key!

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Before Your Submit Your Proposal

- Get someone else (with experience) to read the proposal, and leave your ego behind!
- Don’t wait until the deadline to submit (and ask your SRO how much time they will need in advance).
- Upload, then download and Print the PDF file after finishing and double-check the font size, diagrams, etc.

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Merit Review Criteria

NSF-funded Projects are expected to be of the highest intellectual quality with the potential to advance, if not transform, the frontiers of knowledge.

Projects are also expected to contribute more broadly to achieving societal goals, either through the research itself or through activities related or complementary to the research.

Two Merit Review criteria are considered when evaluating ALL NSF proposals:

- **Intellectual Merit**: the potential to advance knowledge
- **Broader Impacts**: the potential to benefit society and contribute to the achievement of specific, desired societal outcomes

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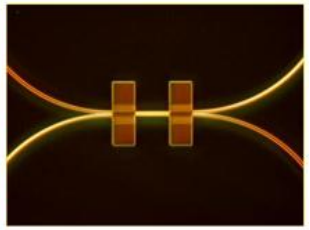
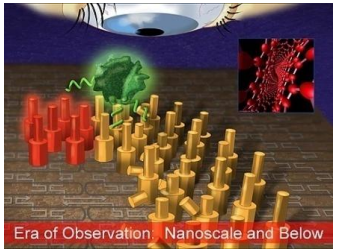
Intellectual Merit

For example…

- How important is the proposed activity to advancing knowledge and understanding within its own field or across different fields?
- How well qualified is the proposer (individual or team) to conduct the project?
- To what extent does the proposed activity suggest and explore creative, original, or potentially transformative concepts?
- How well conceived and organized is the proposed activity?
- Is there sufficient access to resources?





Broader Impacts

For example…

- How well does the activity advance discovery and understanding while **promoting teaching, training, and learning**?
- How well does the proposed activity broaden the participation of **underrepresented groups**?
- To what extent will it enhance the **infrastructure** for research and education, such as facilities, instrumentation, networks, and partnerships?

- Will the **results be disseminated** broadly to enhance scientific and technological understanding?
- What may be the benefits of the proposed activity to **society**?

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Broader Impacts

NSF Broader Impacts are (intentionally) broadly defined.

Examples include, but are *not limited to*:

- improved STEM education and educator development at any level;
- increased public scientific literacy and public engagement with science and technology;
- full participation of women, persons with disabilities, and underrepresented minorities in science, technology, engineering, and mathematics (STEM);
- improved well-being of individuals in society;
- development of a diverse, globally competitive STEM workforce;
- increased partnerships between academia, industry, and others;
- improved national security;
- increased economic competitiveness of the United States;
- enhanced infrastructure for research and education.

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How Proposals become Grants

- Proposals are evaluated by combination of
  - **External ("ad-hoc") reviews:** Program Director selects experts from relevant scientific community to evaluate proposal on its **intrinsic** merits and supply written review and overall score
  - **Panel evaluation:** Program Director convenes Panel of experts from community to evaluate proposal and **compare** it with competing proposals in order to develop recommended relative rankings. Panel ultimately writes Panel Summary outlining their recommendation and why.

- Within the constraints of available funding, Program Director then makes "final" decisions: which proposals and at what funding levels? Funding levels might be negotiated with PI as needed.

- Division Director then "concurs", giving final scientific approval. If funding recommended, NSF's Division of Grants and Agreements then gives final overall approval establishes the new grant.

Congratulations!

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Funding Decisions

Along with the advice provided by reviewers/Panels, NSF staff give careful consideration to the following in making funding decisions:

Integration of Research and Education

One of the principal strategies in support of NSF's goals is to foster integration of research and education through the programs, projects, and activities it supports at academic and research institutions…

Integrating Diversity into NSF Programs, Projects, and Activities

Broadening opportunities and enabling the participation of all citizens, women and men, underrepresented minorities, and persons with disabilities, are essential to the health and vitality of science and engineering. NSF is committed to this principle of diversity and deems it central to the programs, projects, and activities it considers and supports.

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Each Division has its own programs to which you can submit a proposal.

However, there are several important Solicitations which cut *across* NSF….

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RUI: ***Facilitating Research at Primarily Undergraduate Institutions***

- RUI proposals from eligible institutions must be submitted in response to existing NSF funding opportunities and must abide by guidelines and deadlines in those documents.

- Current RUI solicitation is **NSF 14-579**. You submit here and designate which Program should receive your proposal. ***RUI solicitation has extra requirements*** beyond the regular Program Solicitations and PAPPG.

There is no single Foundation-wide deadline for RUI proposals – see Division programs.

MPS AGEP GR *Supplements*

- Available to PIs to support qualifying graduate students at AGEP or AGEP Legacy Institutions only!
  https://www.nsf.gov/mps/broadening_participation/index.jsp

- Graduate Student Eligibility
  - Emphasis placed on under-represented groups
  - Not currently supported by federal government (NSF, DOE, NIH,…)
  - US Citizen, US National, or US Permanent Resident

- Stipend, tuition, benefits, and IDC (~$60k). Renewable up to two times.

See DCL 16-125 for more information

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CAREER

Faculty Early Career Development Program
NSF 17-537

See previous presentation by Kathy McCloud.

Important points to bear in mind…

- Not a research excellence prize!
- Not intended as a default proposal mechanism for new Assistant Professors.
- Has a specialized purpose which may not be suitable for all PI's.

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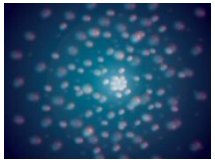
Division of Physics (PHY)

Keith R. Dienes
kdienes@nsf.gov

The Physics Division – A Broad, Rich and Diverse Research Portfolio

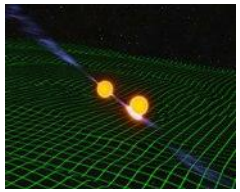
Hot – Active Galactic Nuclei Produce High Energy Cosmic Rays in Pierre Auger Observatory

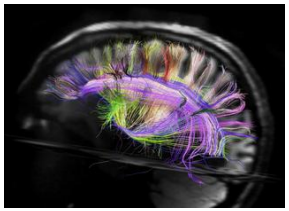


Cold – Ultracold Molecules at JILA

Large – Nucleosynthesis in Accreting White Dwarfs at JINA

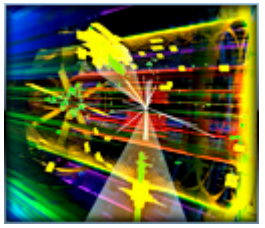
Small – Inspirals Produce Space-Time Distortion Less than Diameter of Proton in LIGO

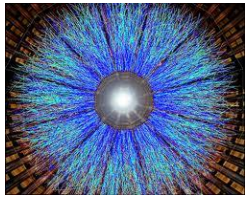




Living – Brain Wave Images with Diffusion MRI

Non-Living – Proton-Proton Collisions at CERN





Old – Big-Bang Soup Recreated in Quark-Gluon Plasma at RHIC

New – Quantum Network at CalTech

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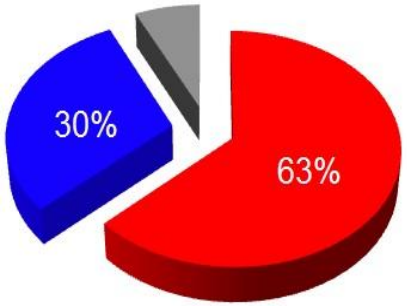
Division of Physics

Facilities	Experiment	Theory	Cross-cutting
Large Hadron Collider	Atomic, Molecular, Optical	Atomic, Molecular, and Optical	Physics Frontier Centers
IceCube	Elementary Particle Physics	Elementary Particle Physics	Integrative Activities in Physics
LIGO	Particle Astrophysics	Astrophysics and Cosmology	Computational Physics
NSCL	Gravitational Physics	Gravitational Physics	Quantum Information Science
	Nuclear Physics	Nuclear Physics and Nuclear Astrophysics	
	Physics of Living Systems	Physics of Living Systems	
	Accelerator Science	Accelerator Science	
	Plasma Physics	Plasma Physics	
	LIGO Research Support		

Centers, Education



Facilities

Individual Awards
Small Teams

Note: Condensed-Matter Physics is within DMR, not PHY!

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World Class Major Facilities

Keeping Researchers at the Frontier

National Science Foundation

Division of Physics

***Program Solicitation*:**
Investigator-Initiated Research Projects (17-561)
https://www.nsf.gov/pubs/2017/nsf17561/nsf17561.pdf

Be aware:

- **New requirements for some PI's!**
- **Does not override existing solicitations such as RUI, CAREER, REU sites, etc.**
- **Deadlines instead of target dates!**
- **Separate deadlines for different Physics programs**

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Division of Physics

Full Proposal Deadlines (due by 5 p.m. submitter's local time):

October 25, 2017:

- Atomic, Molecular & Optical Physics - Experiment & Theory;
- Elementary Particle Physics - Experiment;
- Gravitational Physics - Experiment & Theory;
- Integrative Activities in Physics;
- LIGO Research Support;
- Particle Astrophysics -Experiment;
- Physics of Living Systems

November 8, 2017: Nuclear Physics - Experiment and Theory

December 7, 2017:

- Elementary Particle Physics - Theory;
- Particle Astrophysics and Cosmology - Theory;
- Quantum Information Science

December 6, 2018: Computational Physics

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Division of Physics

Changes to note:

- (for all Divisions:) Collaborators and Other Affiliations is now a Single-Copy Document (not sent to reviewers, seen by NSF only)
- There are restrictions on the allowed content in *Letters of Collaboration* or *Membership in large collaborations*

PI's with **concurrent sources of support:**

- Explain how the proposed work is distinct from other funded activities.
- Discuss commitments (such as deliverables, specific projects, percentage of total research effort, etc.) associated with other support
- Put in the Current/Pending Support section… *item for peer review*.

Additional Information for Midscale Instrumentation:

For proposals to support instrumentation acquisition or development at the level of $4 million and above. This language may also apply to requests for lesser amounts if the cognizant Program Director concludes that the complexity of the instrumentation merits this approach. Investigators should first contact the Program Director for their physics subdiscipline. Proposals should be submitted to the appropriate PHY Program (not a separate solicitation.)

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Division of Astronomy (AST)

Hans Krimm
hkrimm@nsf.gov

AST Division Programs

nsf.gov/ast

Individual Investigators
(Lead: James Neff)

- **AAG** — Astronomy and Astrophysics Research Grants
- **SPG** — Solar and Planetary Research Grants
- **CAREER** — Early Career Faculty
- **AAPF** — Postdocs

Research

- **ATI** — Advanced Technologies and Instrumentation
- **MRI** — Major Research Instrumentation

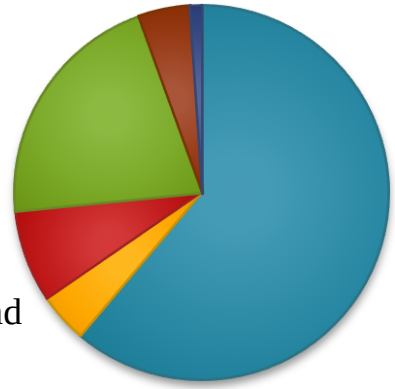
Technology/ Instrumentation

- **REU**

Education and Special Programs

Mid-scale
(Lead: Rich Barvainis)

- **MSIP**



Facilities
(Lead: Ralph Gaume)

- **ALMA**
- **NRAO**
- **Gemini**
- **NOAO**
- **NSO**
- **Arecibo**
- **LSST**

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Astronomy and Astrophysics Research Grants (AAG)

Solar and Planetary Research Grants (SPG)

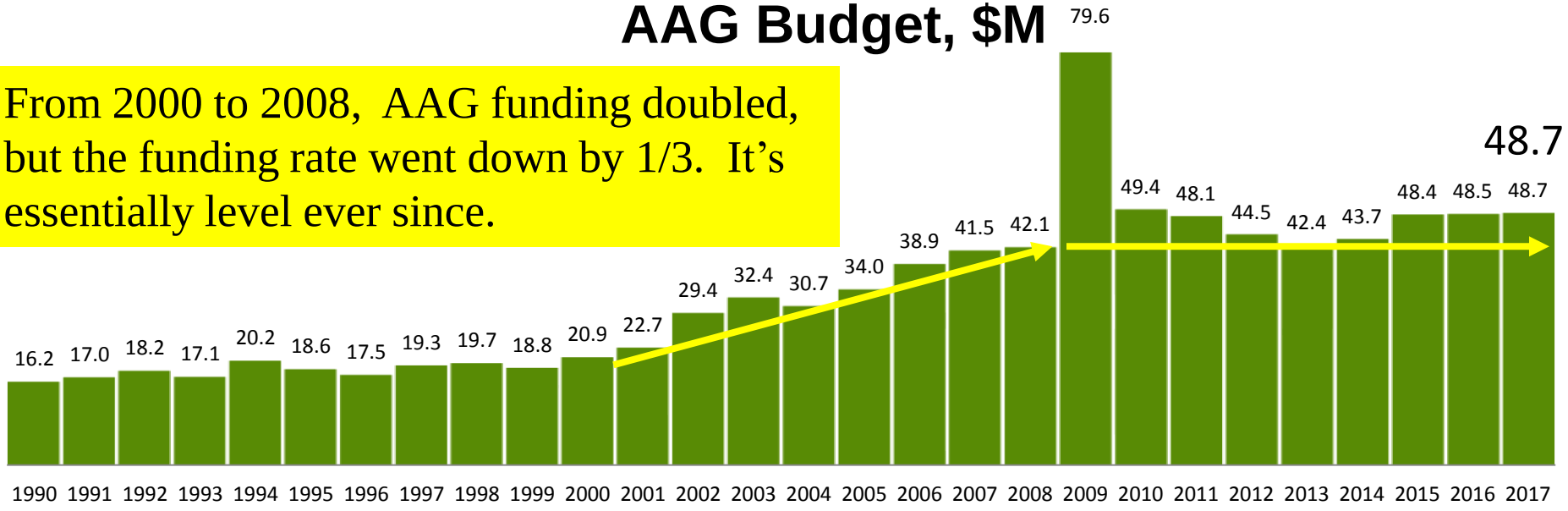
Annual AAG deadline: November 15

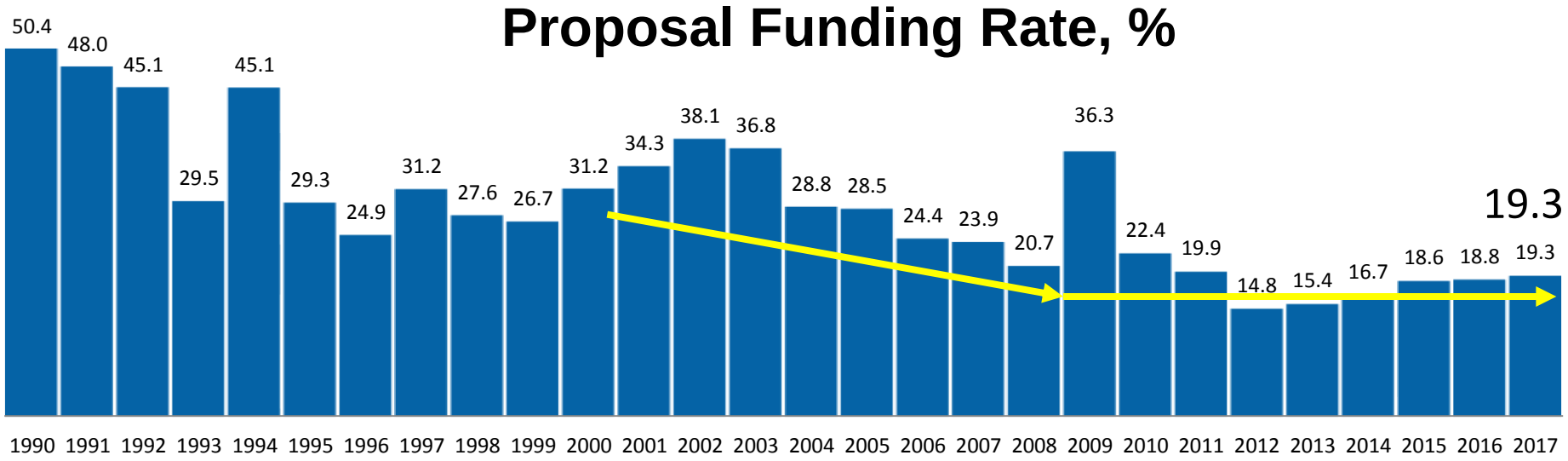
(no deadline for SPG)

- Research grants for observational, theoretical, laboratory, and archival data studies in all areas of astrophysics
- Also support programs that *enable* new research capabilities
- Proposals may span multiple disciplines and/or areas of study and may utilize multiple techniques.

AAG Funding History, 1990-2017

From 2000 to 2008, AAG funding doubled, but the funding rate went down by 1/3. It's essentially level ever since.





IIP Update

- *No Proposal Deadline* pilot underway for the Planetary/Exoplanetary and Solar portions of AAG
- MSIP solicitation has been released for FY2018.
- ATI deadline postponed. Program review in progress.
- PAARE deadline postponed. Program review in progress
- New MRI solicitation expected for FY2018

AAG/SPG Overview

- AAG = Astronomy & Astrophysics Res. Grants (due Nov. 15, 2017)
- SPG = Solar and Planetary Research Grants (no deadline pilot)
- An award is made to an institution: university, observatory, center (like CfA), NOT directly to another federal agency (like NASA).
- Typical awards are 3 years, ~$400K including institutional indirect
- Usual budget is for salary (grad student, postdoc, faculty summer (<= 2 mos), ”soft money” academic year), travel, publication costs.

AAG/SPG program overview:
Observational, theoretical or laboratory
Stellar, planetary, extraplanets, galactic, extragalactic or cosmology
Proposals that are solely or predominantly for the acquisition, analysis, or interpretation of space-based data from NASA-supported missions will be returned without review.

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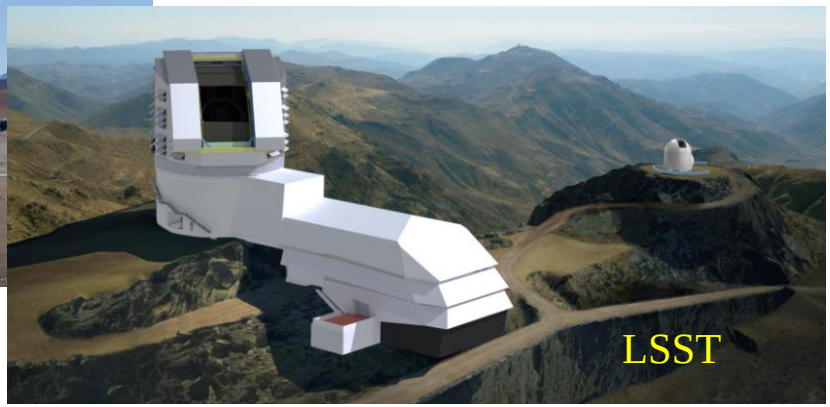
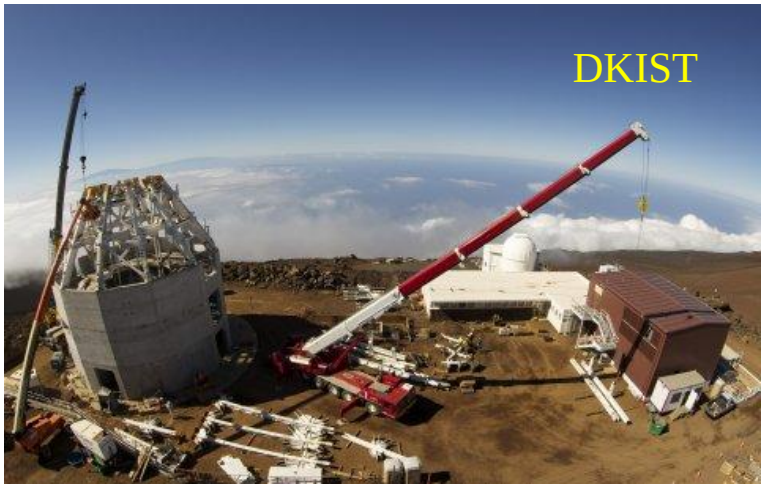
Our Facilities

Arecibo





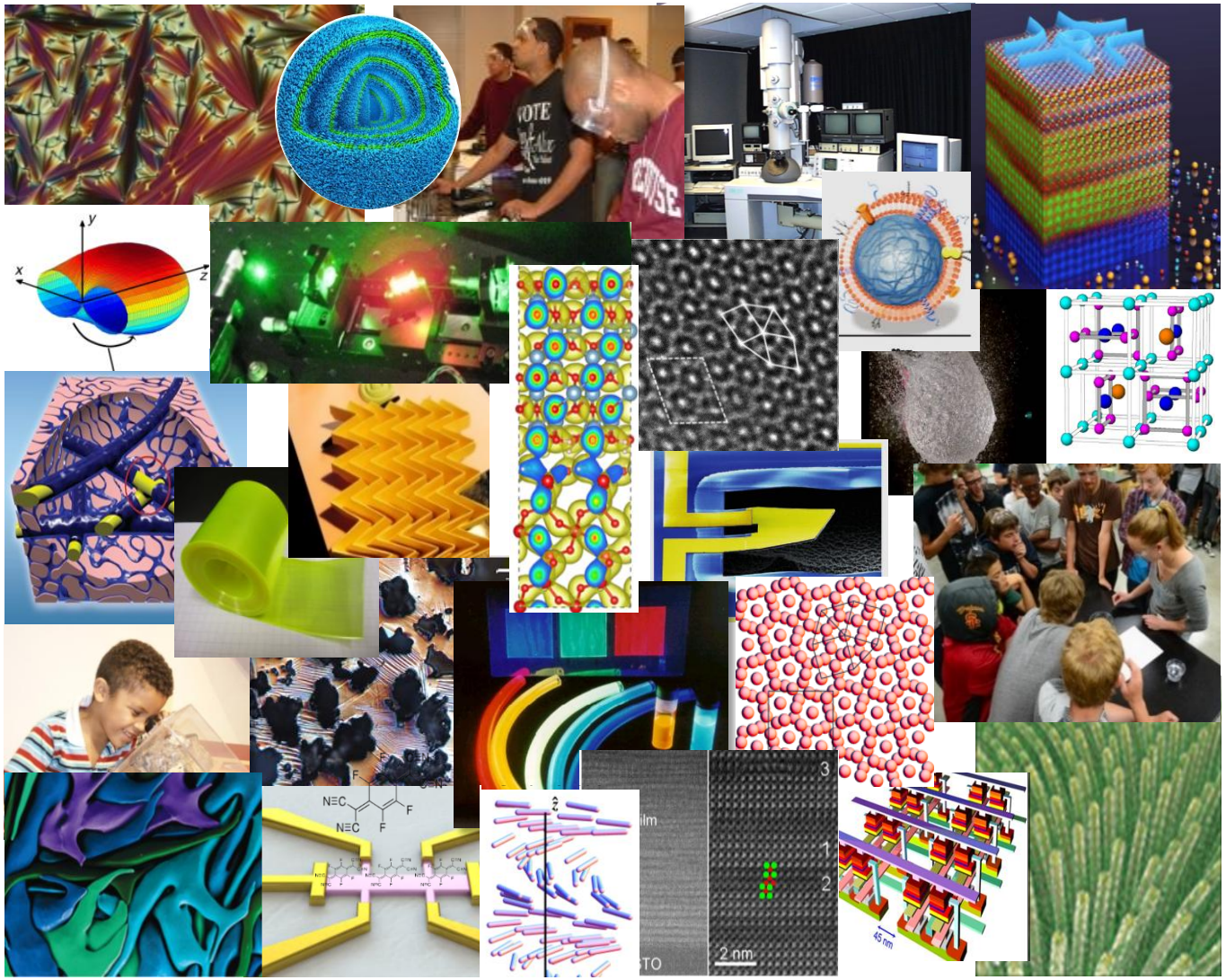
Anyone may propose for observing time on NSF AST-funded facilities

National Science Foundation

Division of Materials Research (DMR)

Leonard Spinu
lspinu@nsf.gov

NSF Division of Materials Research (DMR)



DIVISION OF MATERIALS RESEARCH - DMR

Topical Materials Research Programs (TMRPs)

Biomaterials
Ceramics
Electronic & Photonic Materials
Metals and Metallic Nanostructures
Polymers

Condensed Matter & Materials Theory
Condensed Matter Physics
Solid State and Materials Chemistry

Cross-Cutting Activities

Diversity

International

Education

Centers & Teams

Materials Research Science & Engineering Centers **(MRSEC)**

Partnerships in Research & Education in Materials **(PREM)**

Designing Materials to Revolutionize & Engineer our Future **(DMREF)**

National Facilities & Instrumentation Program

Cornell High Energy Synchrotron Source (CHESS)

National High Magnetic Field Laboratory (NHMFL)

Center for High Resolution Neutron Scattering (CHRNS)

National Nanotechnology Coordination Network (NNCI)

Materials Innovation Platforms **(MIP)**

Division of Materials Research (DMR)

OFFICE OF THE DIVISION DIRECTOR


Linda Sapochak
Division Director


Sean L. Jones
Acting Deputy Division Director


Nelia Odom-Jefferson
Operations Specialist


Velma Lawson
Program Support Manager

ADMINISTRATIVE UNIT


Meghan Ackerman
Program Specialist


Benita Fair
Program Specialist


Renee Ivey
Program Specialist


Claudia Johnson
Contractor


Allison Smith
Program Specialist


Kelsey Smith
Student Program Assistant


Aubrie TenEyck
Contractor


Elaine Washington
Program Specialist


Denese Williams
Program Analyst

Program Directors

National Facilities and Instrumentation


Leonard Spinu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Designing Materials to Revolutionize and Engineer our Future


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Materials Research Science and Engineering Centers


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PREM


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Condensed Matter Physics


Tomasz Durakiewicz


Germano Iannacchione

Electronic and Photonic Materials


Miriam Deutsch


Tania Paskova

Condensed Matter and Materials Theory


Daryl W. Hess


Alex Kloronomos

Solid-State and Materials Chemistry


Birgit Schwenzer


Eugene Zubarev

Metals and Metallic Nanostructures


Gary Shiflet

Polymers


Andrew J. Lovinger

Biomaterials


Alex Simonian

Ceramics


Lynnette Madsen

Cross-Cutting Activities

Divisional

Expert


Freddy Khoury

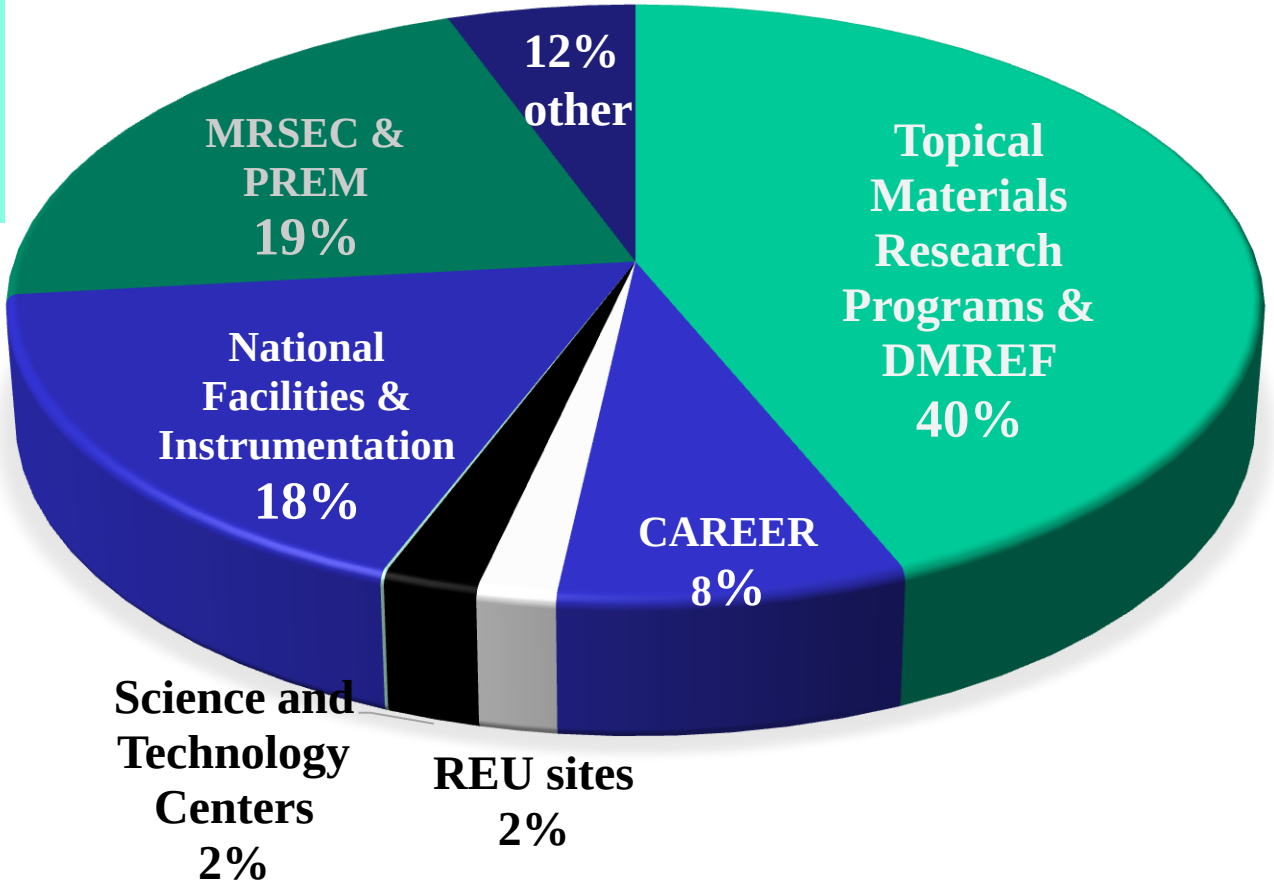
Last Updated: 08/16/2017

DMR DIVISION OF MATERIALS RESEARCH
DIRECTORATE FOR MATHEMATICAL AND PHYSICAL SCIENCES

Where Materials Begin & Society Benefits

DMR Budget Distribution

FY15 $307M
FY16 $310M
FY17 $314M
FY18R $283M



DMR Solicitations for "Unsolicited" Proposals for TMRP

Biomaterials (BMAT)
Electronic & Photonic Materials (EPM)
Metals and Metallic Nanostructures (MMN)
Polymers (POL)
Condensed Matter Physics (CMP)
Solid State and Materials Chemistry (SSMC)

Division of Materials Research: Topical Materials Research Programs (DMR-TMRP)

PROGRAM SOLICITATION
NSF 17-580

REPLACES DOCUMENT(S):
PD 03-1710, PD 03-1773, PD 03-1775, PD 06-7623, PD 09-1771, PD 10-1762

Submission Deadline: Nov 1

Ceramics (CER)

PROGRAM SOLICITATION
NSF 16-597

REPLACES DOCUMENT(S):
PD 15-1774

Condensed Matter and Materials Theory (CMMT)

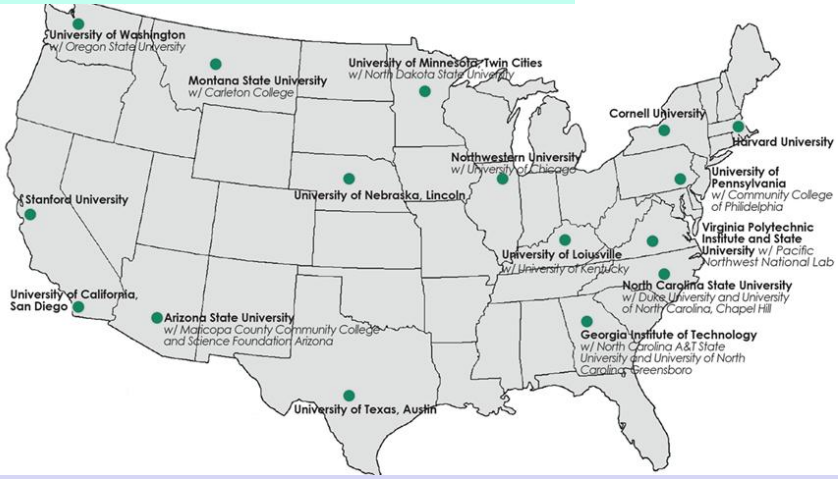
PROGRAM SOLICITATION
NSF 16-596

REPLACES DOCUMENT(S):
PD 09-1765

Open Window – No Deadlines

National Facilities & Instrumentation

Cornell High Energy Synchrotron Source (Cornell, Ithaca)



National Nanotechnology Coordinated Infrastructure http://nnci.net/about-nnci

Center for High Resolution Neutron Scattering (NIST, MD)

National High Magnetic Field Facility (Florida)

Materials Innovation Platforms (MIP)

MIP Concept: Combine a focused research effort in an interactive feedback loop together with a mid-scale user facility open to the community in order to accelerate advancement of a materials research topic of national importance.

2D Crystal Consortium
NSF Materials Innovation Platform

PennState

www.mip.psu.edu

Focus: 2-dimensional chalcogenide materials for future electronics

e.g., Can theory model growth kinetics and guide materials synthesis?

PARADIM

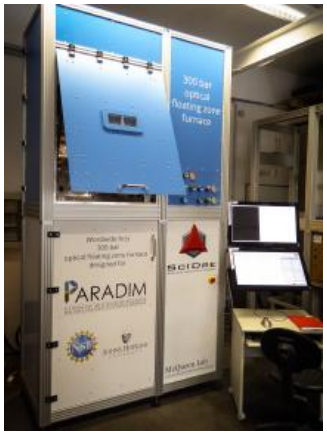
www.paradim.org

Focus: interfacial materials, combining oxides & 2D materials, for valleytronics & spintronics

e.g., Can we design and create new interfacial materials by "breaking" Gibbs' & Pauling's rules?

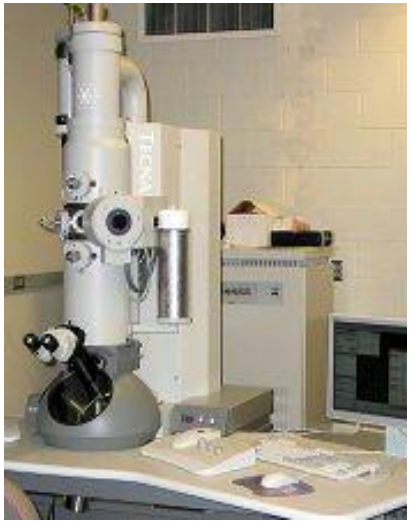
Current Status:

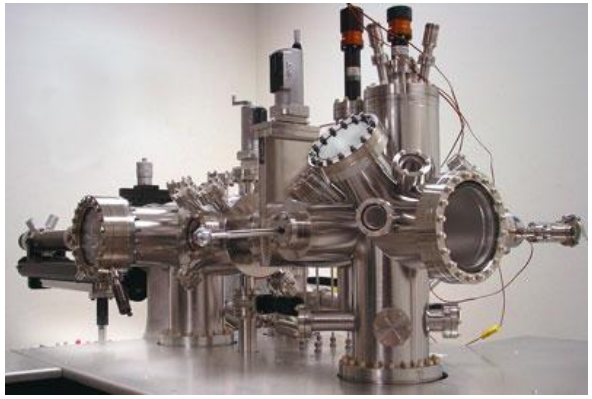
- Accept user proposals; some samples delivered to users already
- World's first 300-atm floating-zone furnace at Paradim-JHU
- Integrated MBE, CVD, ARPES & STM/AFM later in 2017
- Access to computational, TEM & other capabilities
- Webinars and summer schools

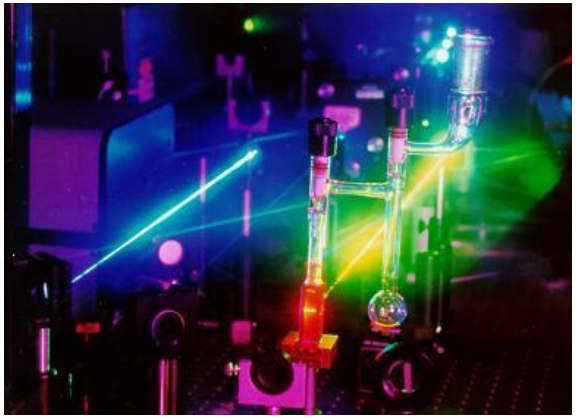


Instrumentation

- Major Research Instrumentation (MRI)
- Divisional instrumentation programs
- Research grants







Major Instrumentation Program (MRI)
NSF – 15-504, FAQ - 15 - 012

Next Deadline: January 2018 **(New Solicitation expected)**

Restrictions on organization submission eligibility

Submission limit - Three (3) per organization: *If three proposals are submitted, at least one of the proposals must be for instrument development.*

Awards - up to $4M for development or acquisition proposals

Cost-sharing at the level of 30% of the ***total project cost*** is required for Ph.D.-granting institutions and non-degree-granting organizations. ***Cost-sharing is not required for non-Ph.D. granting institutions.***

Merit Review - At the time of submission, PI's are asked to identify an NSF division(s) to review proposal. NSF reserves the right to place proposals in the appropriate division(s) for review.

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Questions?

Ask Early, Ask Often

(starting now!)

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DMR: Leonard Spinu, lspinu@nsf.gov

Backup Slides

Outline

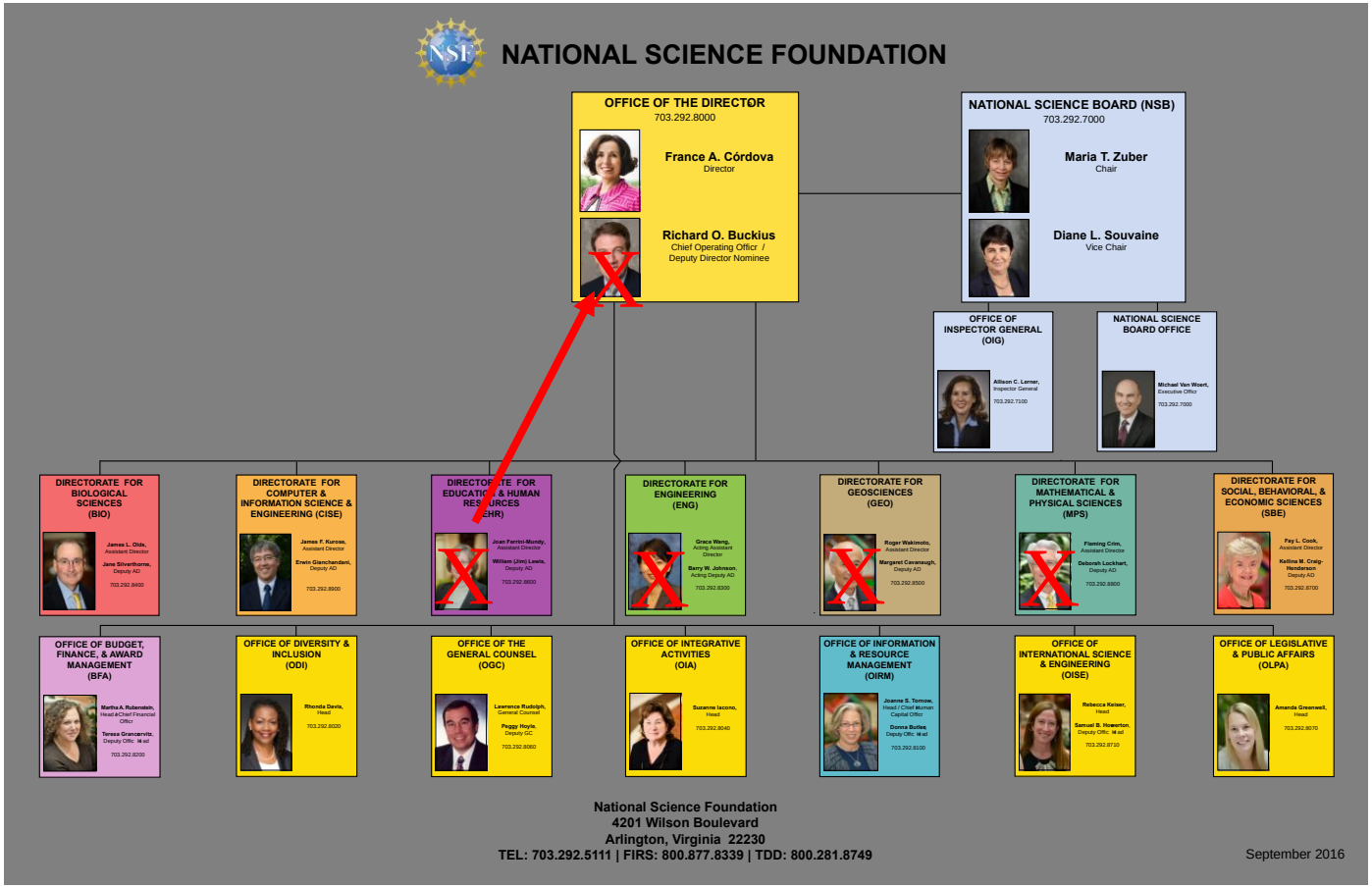
NSF Overview (Jim N)

Division of Astronomical Sciences (Jim N)
Division of Physics (Jim W)
Division of Materials Research (Tess)

Major Research Instrumentation Program (Tess)
RUI (Tess)
MPS AGEP GR *Supplements (Tess)*
CAREER Proposals (Tess)

Merit Review Criteria (Jim W)
Funding opportunities overview (Jim W)

Transitions: NSF



- Major NSF leadership transition in Jan/Feb
- Acting ADs for MPS, GEO, ENG, and EHR
- New Acting Chief Operating Officer
- GEO AD started on June 1; ENG AD will start on June 19.

National Science Foundation

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MPS Overall Funding—FY 2018 Request

MPS Funding

(Dollars in Millions)

	FY 2016 Actual	FY 2017 (TBD)	FY 2018 Request	Change Over FY 2016 Actual Amount	Change Over FY 2016 Actual Percent
Astronomical Sciences (AST)	$246.63	-	$221.15	-$25.48	-10.3%
Chemistry (CHE)	246.52	-	221.05	-25.47	-10.3%
Materials Research (DMR)	309.88	-	282.87	-27.01	-8.7%
Mathematical Sciences (DMS)	233.95	-	209.78	-24.17	-10.3%
Physics (PHY)	276.91	-	253.30	-23.61	-8.5%
Office of Multidisciplinary Activities (OMA)	34.89	-	31.28	-3.61	-10.3%
Total	**$1,348.78**	-	**$1,219.43**	**-$129.35**	**-9.6%**

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Principles Applied to MPS

- Support early career
  - CAREER request relatively stable. Targeted REU reductions if undergraduate students could be supported through national facilities and normal research awards. 8,000 graduate students to be supported through research awards.
- Protect the core; cross disciplinary programs
  - Major research facilities are “core” to MPS.
  - Retained flexibility to fund the best science by rolling some cross-disciplinary programs into core programs.
- Strategic and prioritized reductions within directorates
  - Emphasized funding of highest priority facilities; reductions proposed for some facilities in transition.
  - Reduced mid-scale and instrumentation; support individual investigators.
  - Prioritized low-level investments leading to “Big Ideas”.

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CAREER

ELIGIBILTY: As of Directorate Deadline

- Hold a doctoral degree by the deadline date in a field supported by NSF;
- Be untenured until October 1 following the deadline; and
- Have not previously received a CAREER award (prior or concurrent Federal support for other types of awards or for non-duplicative research does not preclude eligibility);

AND

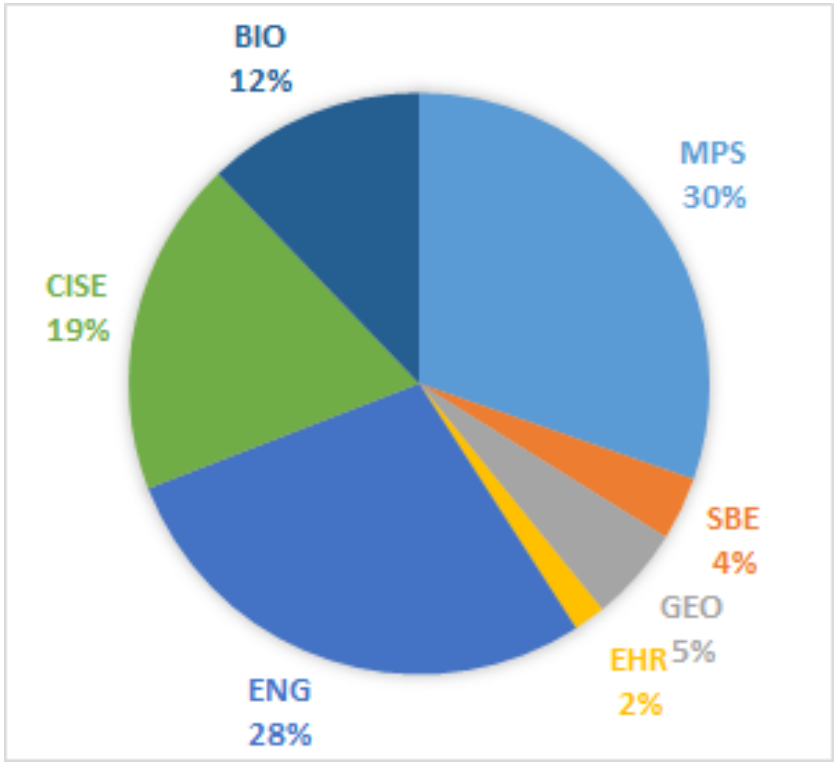
- By October 1st following the deadline for submission of CAREER proposals: Be employed in a tenure-track (or tenure-track-equivalent) position as an **assistant professor (or equivalent title)** at an accredited institution located in the U.S., its territories, or possessions, or the Commonwealth of Puerto Rico, that awards degrees in a field supported by NSF;

OR

- Be employed in a tenure-track position (or tenure-track-equivalent position) as an **assistant professor (or equivalent title**) at an organization located in the U.S., its territories or possessions, or the Commonwealth of Puerto Rico, that is a non-profit, non-degree-granting organization such as a museum, observatory, or research lab.

CAREER Program

Awardees are selected based on their plan of *outstanding research*, *excellent education*, and the integration of research and education within the context of the mission of their organizations, *building a firm foundation for a lifetime of leadership*.



FY2016

Increased participation of those traditionally under-represented in science and engineering is encouraged.