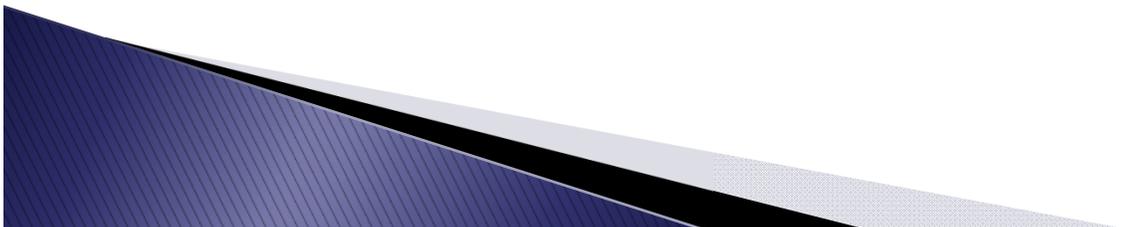




Report from NSF

Gail Dodge

- ▶ Budget
- ▶ Physics Division Personnel
- ▶ NSF Funding Opportunities
 - Accelerator Physics
 - Mid-Scale Instrumentation
 - NRT



NSF FY15 Request Summary



	FY 12 (M\$)	FY 13 (M\$)	FY 14 (M\$)	FY15 Request (M\$)	Change (from FY14)
NSF Total	7,105.41	6,901.91	7,171.92	7,255.00	+1.2%
R&RA	5,758.30	5,558.88	5,808.92	5,807.46	0.0%
MPS	1,308.70	1,249.34	1,299.80	1,295.56	-0.3%

R&RA: Research and Related Activities (includes directorates)
MPS: Mathematical and Physical Sciences

FY14 Operating Plan has now been approved by Congress.

NSF MPS FY15 Request



MPS Funding (Dollars in Millions)

	FY 2013 Actual	FY 2014 Estimate	FY 2015 Request	Change Over FY 2014 Estimate	
				Amount	Percent
Astronomical Sciences (AST)	\$232.17	\$239.06	\$236.24	-\$2.82	-1.2%
Chemistry (CHE)	229.39	235.79	237.23	1.44	0.6%
Materials Research (DMR)	291.09	298.01	298.99	0.98	0.3%
Mathematical Sciences (DMS)	219.02	225.64	224.40	-1.24	-0.5%
Physics (PHY)	250.45	266.30	263.70	-2.60	-1.0%
Office of Multidisciplinary Activities (OMA)	27.22	35.00	35.00	-	-
Total, MPS	\$1,249.34	\$1,299.80	\$1,295.56	-\$4.24	-0.3%

Totals may not add due to rounding.

FY14 Operating Plan has now been approved by Congress.

NSF PHY FY15 Request



PHY Funding (Dollars in Millions)

	FY 2013 Actual	FY 2014 Estimate	FY 2015 Request	Change Over	
				FY 2014 Estimate Amount	Percent
Total, PHY	\$250.45	\$266.30	\$263.70	-\$2.60	-1.0%
Research	164.72	165.99	159.35	-6.64	-4.0%
CAREER	7.68	7.34	7.34	-	-
Centers Funding (total)	1.16	0.02	0.02	-	-
Nanoscale Science & Engineering	1.16	0.02	0.02	-	-
Education	5.31	6.98	5.97	-1.01	-14.5%
Infrastructure	80.42	93.33	98.38	5.05	5.4%
IceCube	3.45	3.45	3.45	-	-
Large Hadron Collider (LHC)	18.00	17.37	18.00	0.63	3.6%
Laser Interferometer Grav. Wave Obs.	30.50	36.43	39.43	3.00	8.2%
Nat'l Superconducting Cyclotron Lab.	21.50	22.50	22.50	-	-
Research Resources	6.97	13.58	15.00	1.42	10.5%

Totals may not add due to rounding.



Trends in NSF PHY Research

	FY 12 (M\$)	FY 13 (M\$)	FY 14 (M\$)	FY 15 request (M\$)
Research	192.73	164.72	165.99	159.35
Research Resources	5.75	6.97	13.58	15.00
Total	198.48	171.69	179.35	174.35
NSCL	21.5	21.5	22.5	22.5

Research Resources includes mid-scale and accelerator science, which is new this year (FY14).

The Physics Division is committed to midscale and would like to see it grow, even in a flat budget climate.

Budget Trends – NSF Nuclear Physics



FY	Hadrons & Light Nuclei (k\$)	Structure & Heavy Ions (k\$)	Fund. Sym. (k\$)	Nucl. Astro. (k\$)	Theory (k\$)	Program Total (k\$)	NSCL (k\$)	Total Nuclear Physics (k\$)
2009	7,663	4,734	5,572	N/A	1,149	19,118	20,500	39,618
2010	6,421	6,863	5,532	1,078	3,855	23,749	21,000	44,749
2011	5,349	6,485	5,336	1,994	3,719	22,883	21,500	44,383
2012	7,657	3,375	5,855	1,610	3,829	22,326	21,500	43,826
2013	5,218	4,259	5,304	1,654	3,474	19,908	21,500	41,408

There was an additional \$11,811K from ARRA in 2009.

JINA (Joint Institute for Nuclear Astrophysics) \$2,150 K/year

MRI: \$2,360 K in FY12 (normally less than \$1 M)
 \$3,021 K in FY13

NSF People



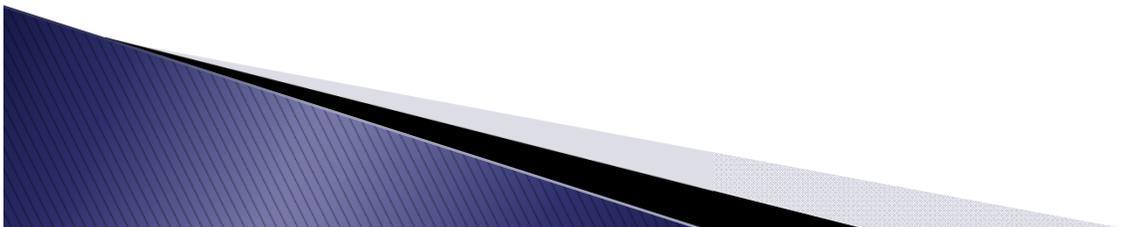
- ▶ **France Cordova** – Director (sworn in April 2, 2014)
- ▶ **Fleming Crim** – Associate Director for MPS
- ▶ **Denise Caldwell** – Physics Division Director
- ▶ **Brad Keister** – Deputy Division Director
- ▶ **Bogdan Mihaila** – nuclear theory program officer
(now permanent)
- ▶ **Jim Whitmore** – particle astrophysics program officer
- ▶ **Jean Cottam** – particle astrophysics program officer
- ▶ **Gail Dodge** – nuclear experiment program officer
(will return to ODU in August)
- ▶ **Alice Mignerey** – nuclear experiment program officer (part time)
- ▶ **Search underway** for two people in experimental nuclear physics
 - **Permanent** (or VSEE) – position closes **May 6, 2014**
 - <https://www.usajobs.gov/GetJob/ViewDetails/364236100>
 - **Rotator** (IPA)
 - <https://www.usajobs.gov/GetJob/ViewDetails/364238900>



Accelerator Science



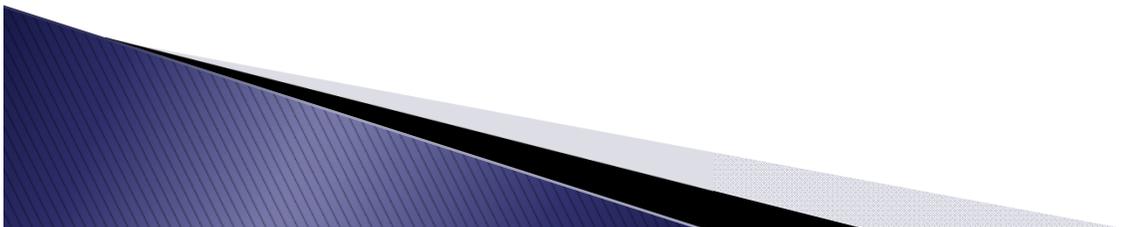
- ▶ The Physics Division is accepting proposals to a new program in accelerator science. Proposals have been received for consideration in FY14. There has been a very robust response to this new program.
- ▶ Next target date is November 28, 2014.
- ▶ Intended to fund accelerator **science**, not R&D for specific projects. Collaboration with a national lab (e.g. prototyping) is fine.
- ▶ Program Description is posted (13-7243).





Mid-Scale Instrumentation

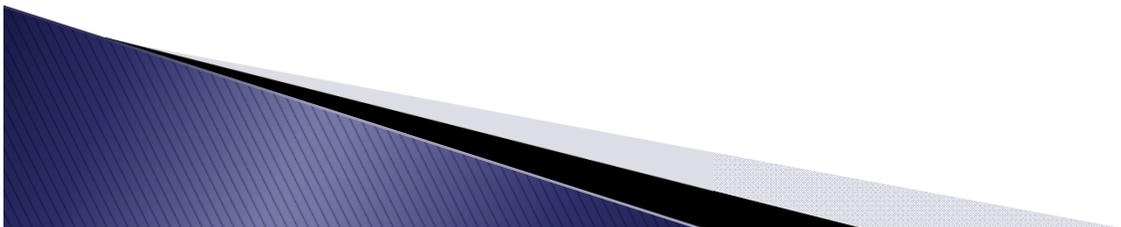
- The Physics Division has established a mid-scale instrumentation fund. The intention is to fund projects above \$4 million (the MRI limit).
- This funding is NOT available for “operations” so program funds will have to be used to run the experiment.
- **Contact us for more information.** You cannot apply to mid-scale directly; all proposals must go through the program.
- A priority of the division (and the directorate) is to increase the resources available for mid-scale.



NSF Research Traineeship Program (NRT) (replaced IGERT)



- ▶ Designed to encourage the development of bold, new, potentially transformative, and scalable models for STEM graduate training that ensure that graduate students develop the skills, knowledge, and competencies needed to pursue a range of STEM careers.
- ▶ Priority research theme – data enabled science & engineering
- ▶ Proposals are encouraged on any other crosscutting, interdisciplinary theme
- ▶ Letter of Intent due May 20, 2014 (optional)
- ▶ Full proposal due June 24, 2014





Physics at the Information Frontier (PIF)

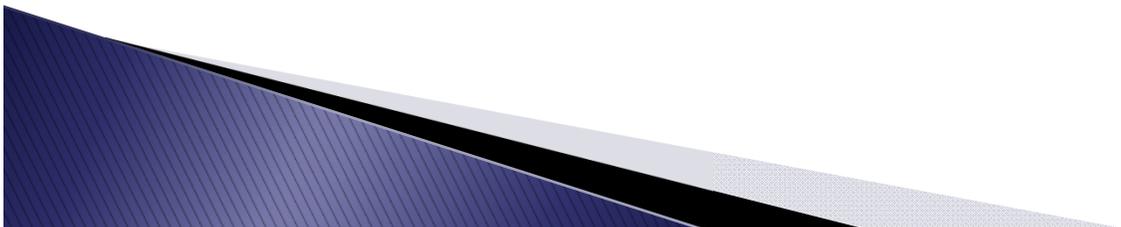
- ▶ MPS, ENG, and OCI have recently established a new cross-directorate program in **Computational and Data-Enabled Science and Engineering** (CDS&E: PD 12-8084).
- ▶ The goal of the CDS&E program is to identify and capitalize on opportunities for major scientific and engineering breakthroughs through new computational and data analysis approaches
- ▶ In Physics this program is implemented in the **Physics at the Information Frontier** program, which includes support for data-enabled science, community research networks, and new computational infrastructure, as well as for next-generation computing. It focuses on cyber-infrastructure for the disciplines supported by the Physics Division while encouraging broader impacts on other disciplines.
- ▶ Target Date: Dec. 1, 2014



Physics Frontier Centers



- ▶ The Physics Frontiers Centers (PFC) program supports university-based centers and institutes where the collective efforts of a larger group of individuals can enable transformational advances in the most promising research areas.
- ▶ **JINA** is an existing PFC
- ▶ Competition now entering its final stages. Reverse site visits will be in May.



Final Thoughts



Search underway for two people in experimental nuclear physics

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