



NSF News
Denise Caldwell
NSF Physics Division Director



Processing NSF Proposals

- We are in the process of finishing the review of FY 2016 PHY division proposals – More in December
- Just in:
 - Physics Frontier Centers Pre-Proposals
 - FY 2017 CAREER proposals



NSF Upcoming Due Dates (1)

- Full Proposal Deadline Date: October 26, 2016
 - Atomic Molecular and Optical Physics - Experiment and Theory; Elementary Particle Physics - Experiment; Gravitational Physics - Experiment and Theory; Integrative Activities in Physics; and Particle Astrophysics – Experiment
- Full Proposal Deadline Date: November 11, 2016
 - Nuclear Physics - Experiment and Theory
- Full Proposal Deadline Date: December 1, 2016
 - Elementary Particle Physics - Theory; Particle Astrophysics and Cosmology - Theory; Quantum Information Science
- Full Proposal Deadline Date: February 1, 2017
 - Accelerator Science
- Major Research Instrumentation:
 - Full Proposal Deadline Date: January 11, 2017

NSF Upcoming Due Dates (2)



- **Software Infrastructure for Sustained Innovation - SSE & SSI (SI2: SSE & SSI)**
 - SSI Proposals Deadline Date: September 19, 2016
 - SSE Proposals Deadline Date: February 21, 2017

Software Infrastructure for Sustained Innovation (SI²: SSE & SSI)



- The SI² program includes three classes of awards:
 - **Scientific Software Elements (SSE):** SSE awards target small groups that will create and deploy robust software elements for which there is a demonstrated need; these software elements will in turn advance one or more significant areas of science and engineering.
 - **Scientific Software Integration (SSI):** SSI awards target larger, interdisciplinary teams organized around the development and application of common software infrastructure aimed at solving common research problems faced by NSF researchers in one or more areas of science and engineering. SSI awards will result in a sustainable community software framework serving a diverse community or communities.
 - **Scientific Software Innovation Institutes (S²I²):** S²I² awards will focus on the establishment of long-term hubs of excellence in software infrastructure and technologies, which will serve a research community of substantial size and disciplinary breadth.

The National Strategic Computing Initiative Turns One



- [NSF] Issued a Software Institute Conceptualization award:

“Conceptualization of an S2I2 Software Institute for High Energy Physics”

Award 1558216 (Elmer, Princeton) / 1558233 (Sokoloff, Cincinnati) / 1558233 (Neubauer, UIUC)

that sponsors community workshops and conceptual work to take advantage of the significant data and computing requirements of the Large Hadron Collider as a science driver for next generation high-performance software and sustainability developments.

Slides from NSF Director's Presentation to NSB Open Session (Big Ideas)



NATIONAL SCIENCE FOUNDATION

NSF IDEAS FOR FUTURE INVESTMENT

Dr. France A. Córdoba

Director, National Science Foundation

May 6, 2016

Slides from NSF Director's presentation to NSB Open Session



NSF Ideas for Future Investment

RESEARCH IDEAS

- Harnessing Data for 21st Century Science and Engineering
- Shaping the New Human – Technology Frontier
- Understanding the Rules of Life: Predicting Phenotype
- The Quantum Leap: Leading the Next Quantum Revolution
- Navigating the New Arctic
- Windows on the Universe: The Era of Multi-messenger Astrophysics

PROCESS IDEAS

- Growing Convergent Research at NSF
- Mid-scale Research Infrastructure
- NSF 2050



Windows on the Universe

The Era of Multi-messenger Astrophysics

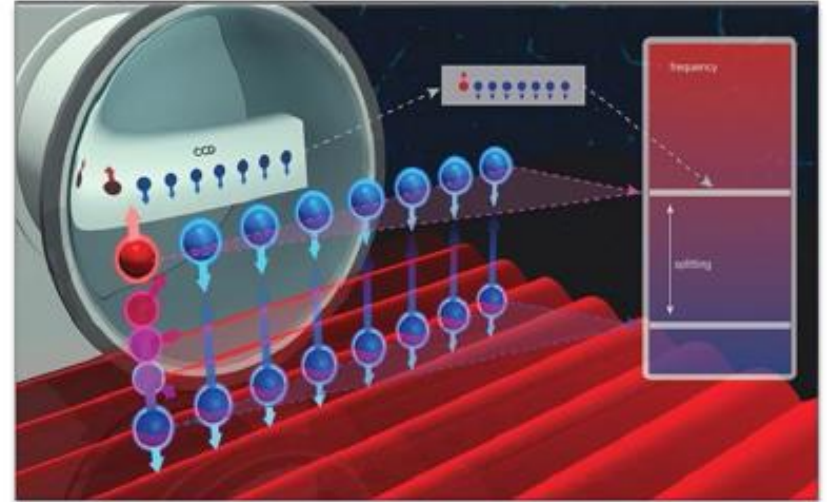
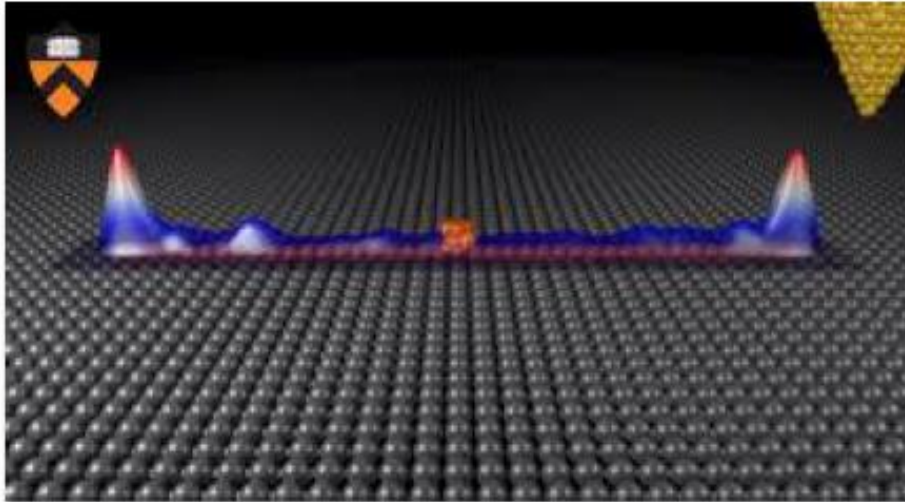


Harnessing Data for 21st Century Science and Engineering



The Quantum Leap

Leading the Next Quantum Revolution



See:

[ADVANCING QUANTUM INFORMATION SCIENCE:
NATIONAL CHALLENGES AND OPPORTUNITIES](#)

Mid-scale Research Infrastructure



Growing Convergent Research at NSF

