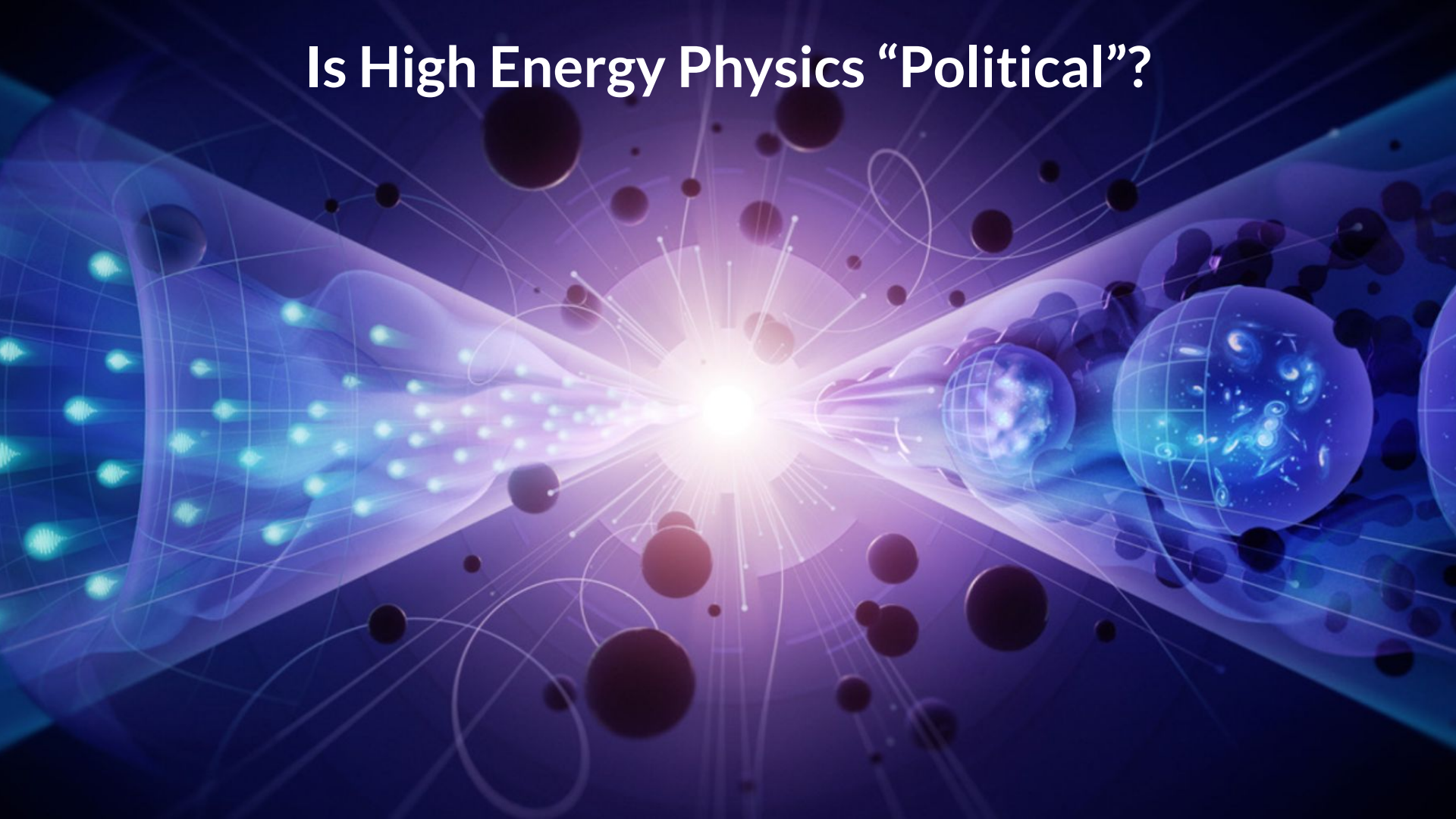
Government Relations Report:

DC Trip Recap + Plans for 2025

Kiley Kennedy, obo the Government Relations Subcommittee

December 18, 2024

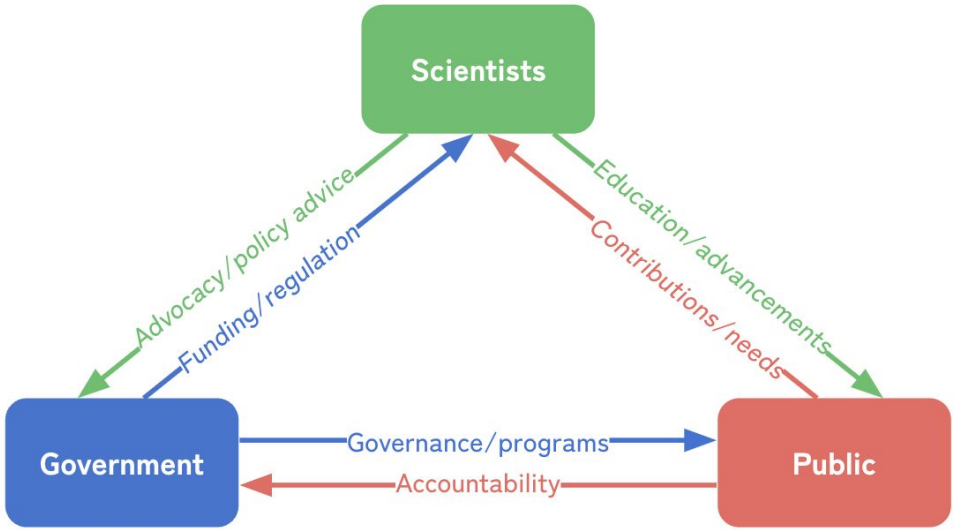
Is High Energy Physics “Political”?



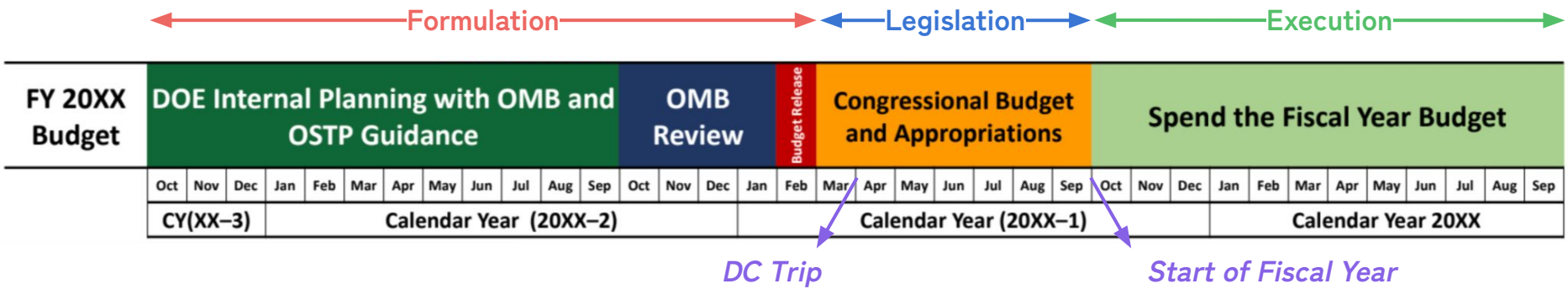
Is High Energy Physics “Political”?

Not really, but…

- We (scientists) are embedded in a complex web of varying interests, understanding, and power
- Funding levels depend on the interplay of a variety of evolving factors



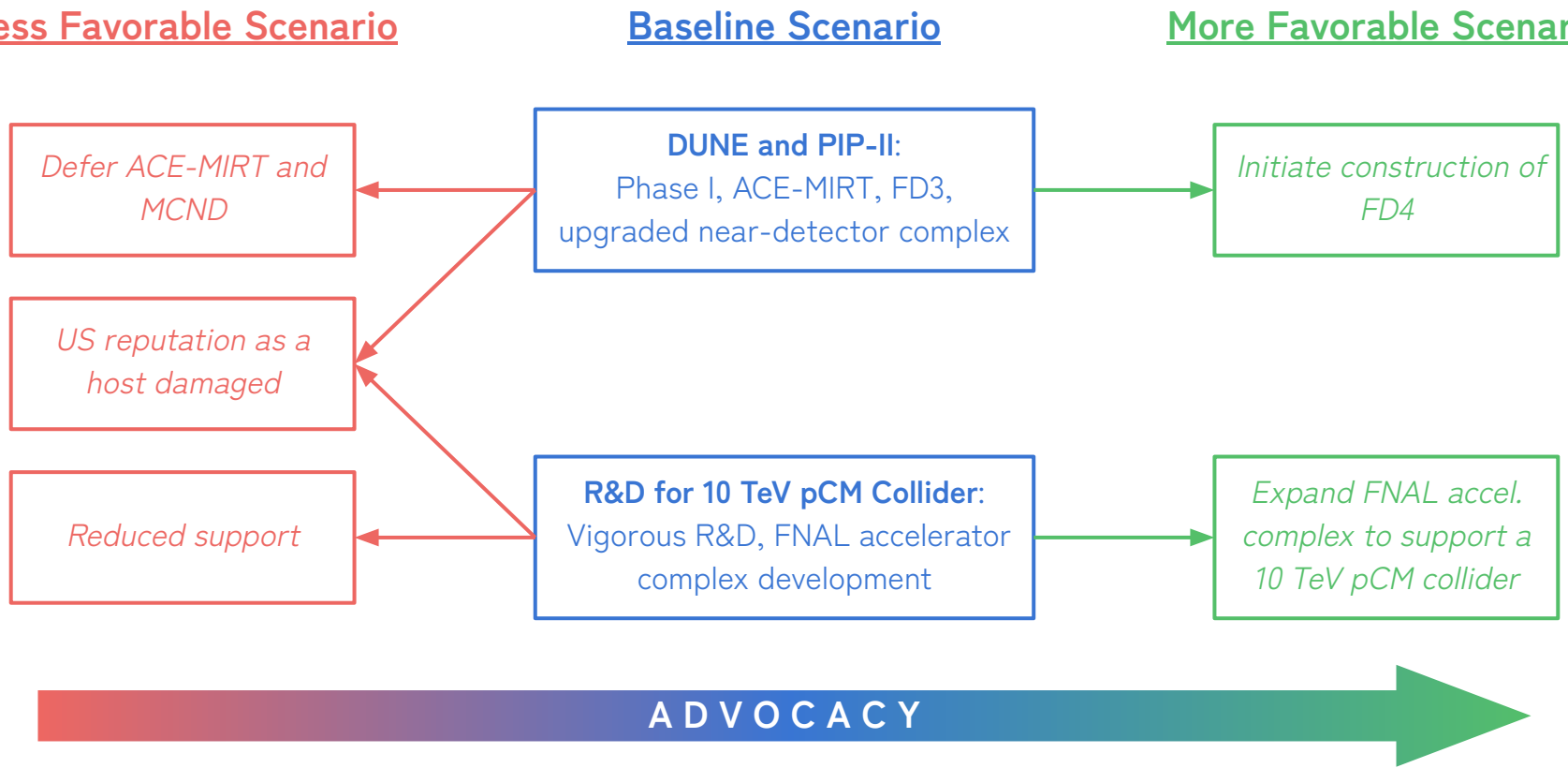
Federal Budgeting and Funding in a Nutshell



- **Formulation**: Executive Branch prepares the President's Budget Request (PBR)
  - White House Office of Management and Budget (OMB) works with executive branch agencies (DOE, NSF) to develop budget proposals based on funding levels and priorities
- **Legislation**: Congress enacts laws that control spending
  - Each chamber develops its own budget resolutions and bills, which may differ from PBR
  - Bill must be passed by both chambers and signed by the President
- **Execution**: Executive Branch agencies carry out program

P5 Budget Scenario Breakdown (2 Examples)

*Highly simplified



HEP Annual Advocacy Effort – The “DC Trip”

- Joint effort between UEC, USLUA, and SLUO, with support from APS DPF, **on behalf of entire US HEP Community**
  - Recent uptick in support from ANL, BNL, LBNL
  - Interest from SURF Users Org., potentially PNL, LBL
- Team of ~40-70 volunteers travel to DC for ~3-5 days of meetings with legislative and executive offices

HEP Annual Advocacy Effort – The “DC Trip”

- Joint effort between UEC, USLUA, and SLUO, with support from APS DPF, **on behalf of entire US HEP Community**

Prof. Breese Quinn: ***“We have worked hard to successfully earn the reputation of being the ‘gold standard’ of program planning, not just in science, but more broadly. We have profited from that reputation immensely.”***

- Team of ~40-70 volunteers travel to DC for ~3-5 days of meetings with legislative and executive offices

Our Advocacy Goals

"The Ask" for FY2025

The U.S. particle physics community asks for your support of the P5 Report's strategic plan by providing FY2025 appropriations that include:

$1.385B for High Energy Physics within a budget of $9.5B for the Department of Energy's Office of Science, and $11.9B for the National Science Foundation, consistent with the bipartisan CHIPS and Science Act

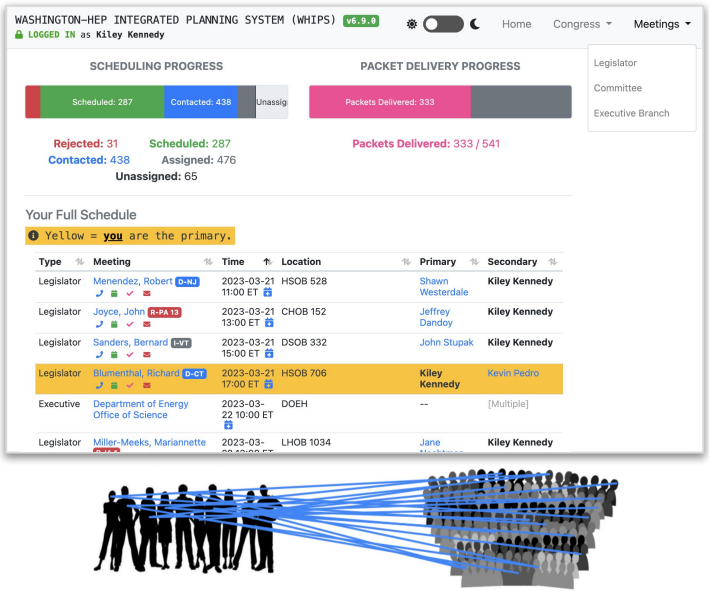
This level of funding will advance HEP's highest priority large-scale projects, sustain operations of existing and recently constructed facilities, and promote a portfolio of small and medium-sized projects. This funding level is especially important to increase support for scientific researchers at universities and national laboratories across the country who are exploring our quantum universe through the Higgs Boson, dark matter, dark energy, neutrinos, and new particles and forces that govern the origin and evolution of the cosmos.

- Funding priorities set by the latest P5 Report
- Convey the nature, excitement, and importance of the physical sciences, and HEP in particular
- Establish and build relationships with every congressional office

Organization + Materials

WHIPS – *Washington-HEP Integrated Planning System*

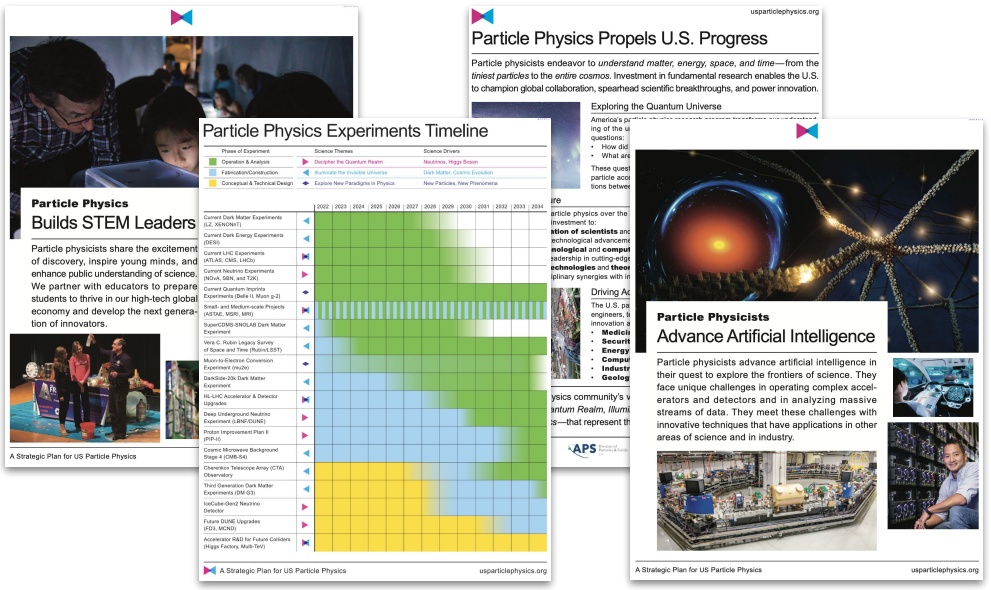
- Centralized platform for planning, executing, and documenting HEP advocacy efforts
- Logistics, Institutional Memory, Materials



Developed and maintained by Justin Vasel + Fernanda Psihas

Materials – *"The Packet"*

- P5 priorities, physics motivations, experiments, facilities, applications, outreach, and much more
- Adapt materials for each meeting



Led by Michael Cooke, Bryan Field + the UsParticlePhysics.org Content Group

On the Ground in DC

Legislator Meetings *(most common)*

In pairs, meet with up to 541 legislative offices in House and Senate

Committee Meetings

In small groups, meet with relevant Appropriations Subcommittee offices

Executive Meetings

In groups of ~10-15, meet with OMB, OSTP, DOE (OSC + HEP), NSF, State

2024 DC Trip By the Numbers

532
Offices Contacted

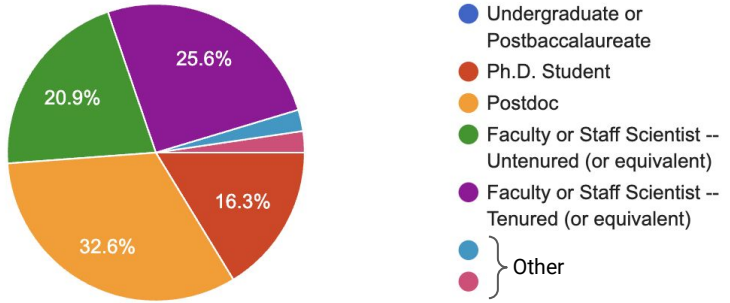
384
Meetings Scheduled

70
Participants

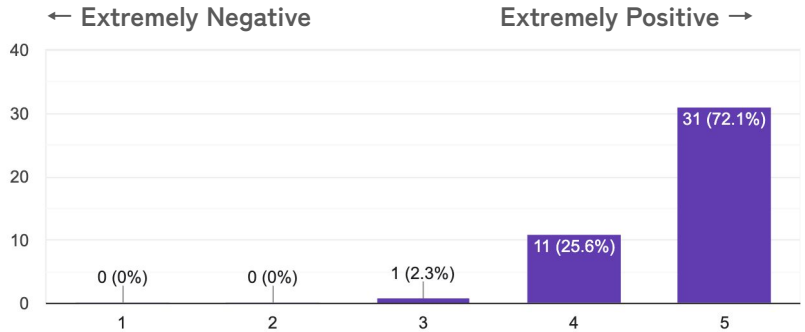
453
Packets Delivered

4500+
Connections Tracked by WHIPS

Participant Career Stage Breakdown:



Participant Rating of Overall Experience on the Trip:



USLUA Contributions to 2024 DC Trip

- 34 LHC-affiliated participants
- USLUA financially supported 14
  - Many funded via UEC
  - Some funded via lab/university

Thank you to the wonderful USLUA contingent!

Aaron Wang
Abraham Tishelman-Charny
Ann Wang
Anthony Badea
Ashling Quinn
Brendon Bullard
Christopher Madrid
David Yu
Gabriel Matos
Garvita Agarwal
Gwen Gardner
Harvey Newman
Irene Dutta
Isobel Ojalvo
Jannicke Pearkes
Johan Sebastian Bonilla Castro
John Stupak
Jordan Ashley
Karri DiPetrillo
Kevin Pedro
Kiley Kennedy
Lauren Larson
Lawrence Lee
Luigi Marchese
Melissa Quinnan
Nathan Grieser
Neeti Parashar
Rachel Bartek
Ryan Kim
Saptaparna Bhattacharya
Sergei Gleyzer
Sridhara dasu
Thomas Boettcher
Toby Satterthwaite

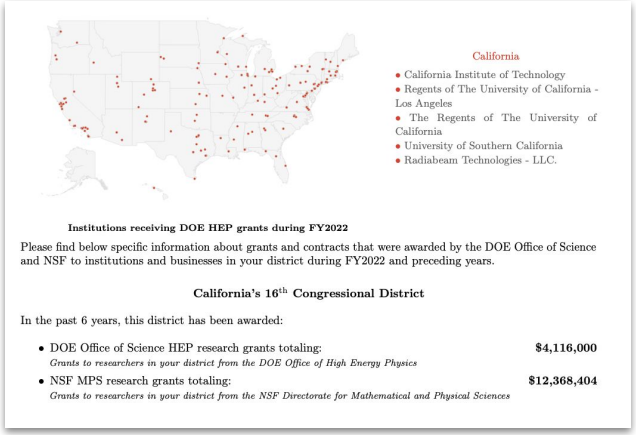
DC Trip: Plans for 2025

- Organization started late November with SLUO and Fermilab UAEC
  - Discussions with SURF, ANL, BNL, LBNL already
- Held Info Session for Newcomers in 12/5 – recording available
  - Interest form for DC Trip 2025 still open: CLICK HERE
  - Over 40 attendees and 34+ interest form responses!
- Dates: to be announced in January 2025 → anticipate March or April trip date
  - Work closely with Lewis-Burke Associates to determine most "advantageous" time to target legislative offices, which can vary year-to-year
  - Past years: most DC Trips in March, sometimes in April – anticipate later schedule this year
  - Will not conflict with APS, major ATLAS/CMS meetings
- USLUA Funding: Targeting support for ~20 participants

DC Trip: Plans for 2025

- WHIPS Development
  - Small bug fixes to some district letters
  - Try to include data from entire NSF (not just MPS) for districts with lower funding levels

- Packet Development
  - Move from text-heavy to photo-forward – based on feedback form from 2024 DC trip



California

- California Institute of Technology
- Regents of The University of California - Los Angeles
- The Regents of The University of California
- University of Southern California
- Radiabeam Technologies - LLC.

Institutions receiving DOE HEP grants during FY2022

Please find below specific information about grants and contracts that were awarded by the DOE Office of Science and NSF to institutions and businesses in your district during FY2022 and preceding years.

California's 16th Congressional District

In the past 6 years, this district has been awarded:

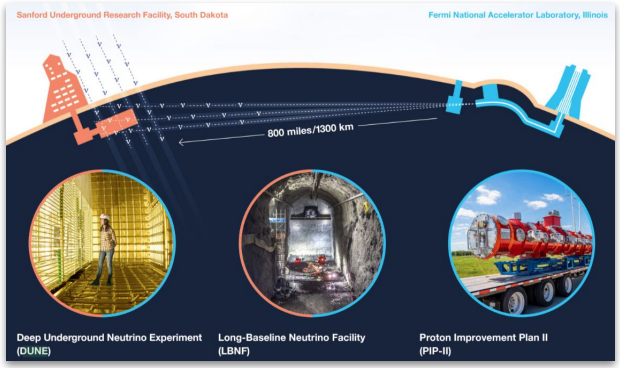
- DOE Office of Science HEP research grants totaling: **$4,116,000**
  Grants to researchers in your district from the DOE Office of High Energy Physics
- NSF MPS research grants totaling: **$12,368,404**
  Grants to researchers in your district from the NSF Directorate for Mathematical and Physical Sciences

Computing and Simulation

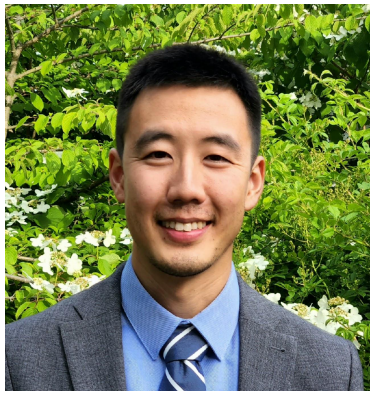
- **The World Wide Web** was first developed by particle physicists to share information quickly and effectively around the world. Particle physicists continue to push the frontiers of big data analysis with global grids and cloud computing.
- **Radiation exposure for spacecraft** is simulated using software originally developed to model particle detectors.
- **Atomic and nuclear physics advances** benefit from precise mathematical techniques developed by particle physicists, now used to predict new materials and molecules.
- Particle physics theorists are developing foundational concepts that will **advance quantum information science** and enable quantum simulation experiments that will provide new ways to explore scientific problems.

Manufacturing

- **Precise, customized medical implants** are manufactured using electron beams from particle accelerators.
- **The food industry** has used particle accelerators for decades to produce the sturdy, heat-shrinkable film that turkeys, fruits, vegetables, and baked goods come wrapped in.
- **Ink curing companies** use particle accelerators as an environmentally friendly way to produce the colorful packaging on many grocery store items, including cereal boxes.



About the Organizers in 2025



David Yu, Fermilab UAEC
Government Relations Chair,
Assistant Prof., SUNY Buffalo on CMS

UAEC Gov. Rel. Deputies: Tova Holmes, Luigi Marchese, Ali Eren Simsek

Kiley (me), USLUA
Government Relations Chair,
Postdoc at Princeton on CMS

USLUA Government Relations Team:
Karri Di Petrillo, Joe Haley, Lauren Larson, Matt LeBlanc, Harvey Newman, David Saltzberg, John Stupak, Caterina Vernieri

Kelly Stifter, SLUO
Government Relations Chair,
Associate Scientist at SLAC in low-mass dark matter experiment

Other SLUO organizers: River Robles, Toby Satterthwaite

Vetri Velan
Postdoc at Lawrence Berkeley National Lab in dark matter (LZ, TESSERACT)

DC Trip: Ingredients to Success

- DC Trip Preparation
  - A catalog of updated advocacy materials easily adaptable to different scenarios ★★
  - Continued development and support of WHIPS ★
  - A comprehensive (science) communication training program ★★
  - Sustained documentation, support materials, and institutional knowledge ★
- DC Trip Participants
  - An enthusiastic cohort of early career researchers ★★
  - A solid group of highly experienced advocates who possess critical institutional knowledge and established Hill connections ★
- The HEP Community
  - A strong sense of support (both moral and financial) for trip participants ★

How can I contribute?

★ As an early career researcher

★ As a mid-career or senior researcher, or experienced advocate

Conclusions + Outlook

- **Successful 2024 DC Trip:**
  - Phenomenal effort of 70+ particle physicists and accelerator physicists!
  - 2023 P5 very well-received: widespread enthusiasm for HEP across the political spectrum
  - Given current political climate, HEP budget and core research continues to get squeezed

- **DC Trip 2025 plans already underway!**
  - Close collaboration between USLUA, UAEC, SLUO
  - Stay tuned for the date announcement in early January – please fill out this form if interested

- **What to expect in FY26?**
  - Many uncertainties given administration change

Thank You!