Government Relations Report

Yangyang Cheng
USLUA Annual Meeting
10/26/2018
Outline

• Report on advocacy trips to DC
• Highlights from outreach activities
• Suggestions and thoughts for future advocacy

Special thanks to Harvey Newman and Joseph Zennamo for slide materials, and many in the USLUA community for helpful inputs and feedback!
Who Do USLUA Represent?

**DOING THE SCIENCE**

23 percent of the ATLAS collaboration members come from American institutions. 33 percent of the CMS collaboration members come from American institutions. Nearly 2000 scientists from institutions in the United States are involved in the LHC. Since 2008, the work on the ATLAS and CMS experiments resulted in about 230 doctorate degrees for US students.

**US LHC**

2000 Scientists, engineers, students and technicians from 96 US institutions in 33 US States and Puerto Rico

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**TAKING THE DATA, ANALYZING THE RESULTS**

Computing for LHC experiments takes place in a distributed system, with CERN providing raw and processed data to 11 computing centers, two of which are located in the United States, at Fermi National Accelerator Laboratory and Brookhaven National Laboratory. In addition to processing and storing the data, these centers distribute subsets of it to universities and institutions around the country for analysis.

The United States provides 23 percent of the computing power for the ATLAS experiment and 40 percent of the computing power for the CMS experiment.
History of DC Advocacy Trip

• For 35 years, members of three major HEP associations in the US, Fermilab UEC, USLUA, and SLAC Users Org, have visited DC during budget season in March
• **Goal:** meet with representatives from congressional offices, key congressional committees, and executive branch offices
• **Message:**
  – Convey gratitude for their support for basic research and HEP in particular
  – Share our excitement for our work
  – Communicate the value of HEP to society and their constituents in particular
  – Advocate for continued federal support
DC Advocacy Trip at a Glance

- Trip organized by Fermilab UEC, USLUA, & SLUO
- Dedicated software tool assigns trip attendees to congressional offices as “primary” & “secondary” based on their connections to the offices etc.
  - “primaries” contact the offices to schedule the meetings
- Before the trip, a unified message (“the ask”) is agreed upon. Material packets are prepared and training sessions held on logistics, communications, etc.
- Over the course of three (up to four) days, the diverse delegation (~50ppl) representing 6,000+ HEPers in US visit as many offices as possible #HEPTakesTheHill

#HEPtakesThehill !
Please support funding for High Energy Physics in FY2018 by sponsoring:

- $860M for High Energy Physics within the Department of Energy’s Office of Science in the Energy and Water Appropriations bill

- $7.8B for the National Science Foundation in the Commerce, Justice, Science, and Related Agencies Appropriations bill

These funding levels for high energy physics within the DOE Office of Science and the NSF are vital to maintain U.S. leadership in the field, to move forward with the world-class scientific projects of the P5 strategic plan, including the Large Hadron Collider and Long Baseline Neutrino Facility/Deep Underground Neutrino Experiment physics programs, and to meet scheduled commitments to our international partners.

(slide c/o Harvey Newman)
DC Trip 2018: WHIPS Tool

- Much of this year’s success was thanks to the “Washington-HEP Integrated Planning System”

- Web-based tools aimed at automating much of the trip logistics:
  - Who are you connected to
  - Your meeting assignments
  - Centralized forum to fill open meeting
  - Meeting reports
  - Trip data analysis

J. Zennamo, Fermilab

WHIPS
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DC Trip 2018: Training

• A series of training sessions were held to inform trip attendees of logistics, US government structure and the budget/funding process, and how to best convey our messages to Congress

• In particular, a science communications curriculum was developed with broad & future use potential
  – aimed to teach communication strategies and best practices to scientists for science
  – Provide a clear and concise message
  – identifying the clear benefits to society of fundamental research
  – clarify the goals to make a lasting impression in the minds of the people we talked to
DC Trip 2018: Coverage

- 54 trip attendees
  - 34 FNAL UEC, 13 USLUA, 7 SLAC
  - 9 from USLUA are LR winners
  - 22 women
  - 35 early career

Visited 84/100 Senate offices
(12 more than last year)

Visited 305/435 House offices
(29 more than last year)

7/8 of the “big” committees
(driven by Prof. B. Quinn)
For each congressional office, when available, bring a sheet of NSF & DOE grants received in the district / state: we have prepared software tools and procurement spreadsheets so this info is easily obtainable.
Trip Material: P5 Report and Progress

• Anchor our messaging in the P5 report and its progress
  – P5: Particle Physics Project Prioritization Panel
  – Considerable name-recognition on the Hill (not 100%)
• The P5 report codifies the community’s desire to be good stewards of the taxpayer’s monies
  – All projects have been on budget and on schedule

The P5 Report provides the strategy and priorities for U.S. investments in particle physics for the coming decade.

The top four priorities in 2018

- Advance the High-Luminosity LHC (HL-LHC) accelerator and ATLAS and CMS detector upgrade projects on schedule, continuing the successful bilateral partnership with Europe. This is P5's highest-priority near-term large project.
- Advance the Long-Baseline Neutrino Facility (LBNF), Deep Underground Neutrino Experiment (DUNE), and Proton Improvement Plan II (PIP-II), working with international partners on the design, prototypes, initial site construction, and long-lead procurements. This is P5’s highest-priority large project in its time frame.
- Support the existing construction projects enabling the next major discoveries in particle physics, including LSST, DESI, Mu2e, LHCb, LZ, and SuperCDMS-SNOLAB.
- Balance scientific research with facility operations and the carefully selected portfolio of small, medium, and large projects that together facilitate the success of the community’s strategic vision. The P5 Report provides the strategy and priorities for U.S. investments in particle physics for the coming decade.

These carefully chosen investments will enable a steady stream of exciting new results for many years to come and will maintain U.S. leadership in key areas.

Recent results

- Higgs, dark matter, and dark energy
- Also highlighted particle physics contributions to: Fermi Space Telescope and LIGO/Virgo

Program advances in 2017

- US-CERN partnership, DUNE, Muon g-2, Fermilab proton power, next gen dark matter and dark energy, next gen CMB facilities

Looking forward

- LHC, ILC (Japan), HEP Theory investment, QIS
DC Trip 2018: Highlights

How often do you get quizzed on silicon detector electronics or dark matter searches by a member of Congress? Thanks so much @RepBillFoster for meeting with us and your support for #basicresearch as the only PhD scientist in Congress! #HEPtakesthehill

Thanks to @SenSchumer and Olivia Alves for a great meeting and support for #HEPtakesthehill

Meeting with @CoryGardner and staff on federal support for basic research. Thanks so much for leadership with America COMPETES Act and continued support for science! #HEPTakesTheHill

Had a great meeting advocating for particle physics with congresswoman @RepWalorski. #HEPtakesthehill
## DC Trip 2018: Outcome & Reflections

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<th>FY17</th>
<th>FY18</th>
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<tr>
<td>HEP Total</td>
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<td>908M</td>
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**USLUUA participant from LR:**

“it was absolutely one of the most empowering experiences I've ever gotten the chance to participate in, so thank you so much to you and all the other organizers for organizing this and for inviting me.”

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**Yangyang Cheng**

I return from my 5th trip in 3 yrs advocating for science on Capitol Hill. It never ceases to amaze me how I as an #immigrant can walk through the nation's highest legislative body & speak my mind, esp. as my home country of #China crowns a new Red Emperor. #WhatDemocracyLooksLike

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**Michela Paganini**

🎉 advocacy works? Yay for science! #OmnibusBill #HEPtakesTheHill

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**Matt Hourihan**

Omnibus Would Provide Largest Research Increase in Nearly a Decade: aaas.org/news/omnibus-w... via @aaas @aaas_gr #science #innovation #scipol

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**Michela Paganini**

Recently got back from a trip to DC where I got to talk to Senators, Representatives and their staff about federal investments in High Energy Physics. Crazy to be able to do that as a foreigner! Powerful experience, thanks @us_lhc! #advocacy #HEP #HEPTakesTheHill
Communications and Outreach

Society for Science at User Research Facilities User Science Expo

- SSURF hosted a Science Expo on the hill and held office visits
- The major HEP labs participated hosting booths

SSURF Capitol Hill Expo Messages/Talking Points

- America’s network of scientific user facilities is the nation’s shared innovation toolbox. The network is a major engine of our leadership in scientific discovery and technology development, and in American economic competitiveness.
- User facilities are located at national laboratories, universities, and at standalone sites nationwide.
- Each facility is a highly specialized center of scientific equipment and scientific experience & expertise that is beyond the means of any single company, university, or laboratory. Researchers

(slide c/o J. Zennamo)
USA Science & Engineering Festival

April 7-8, 2018
@Walter E.
Washington
Convention Center

Verena Martinez
Andrei Gritsan
David Miller
Yangyang Cheng
Harvey Newman
Suggestions for Future DC Trips

In preparation for the trips

• More hands-on, in person if possible, training to practice the pitch and tailor it to the individual offices

• More background information on US congress and funding process, especially for first-time participants and immigrants

• Formally include funding/grants for each district/state (when applicable) in the packets as they were hugely popular
  – plus information on HEP scientists who originated from the district/state

In selecting delegates

• Trip attendees should be selected based on their ability to communicate and represent our field well, not on academic seniority

→ In preparation for and duration of the trip, young scientists & members from underrepresented groups should be given adequate support from the entire delegation and the community at large
More Thoughts on Science Advocacy

• The DC trips have a long history of effective advocacy and the message is specific & focused for its purpose
• However, if science advocacy is limited to *asking for more funding*, it would be a disservice to our community
• Science is done by scientists and scientists are people. The value of our community is not determined by a line in the budget but ultimately by the people it has and the future generations

→ What more can USLUA and the HEP community do in cases of government policies, political rhetoric, and the resulting climate that undermine scientific collaboration and threaten the wellbeing of scientists?
THANK YOU!