

Maintaining Visibility of the P5 Report

DPF 2015 Meeting

S. Ritz

Building for Discovery

Strategic Plan for U.S. Particle Physics in the Global Context



Report of the Particle Physics Project Prioritization Panel (P5)

May 2014



A Fine Start!

- **Thanks to the efforts of many:**
 - **Community letter organized by DPF and Users Organizations, >2000 signatures gathered in 1st week**
 - **an important message given our earlier reputation as a “fractious” community**
 - **A sustained sequence of rollout activities:**
 - **interactions with decision makers and outreach to other fields**

During the late summer of 2013, the DOE and NSF charged the High Energy Physics Advisory Panel (HEPAP) to constitute a new Particle Physics Project Prioritization Panel (P5) with a goal of developing a 10-year strategic plan for U.S. particle physics in the context of a 20-year global vision. P5 recently completed its work and its report was unanimously endorsed by HEPAP on May 22, 2014. As scientists, engineers, and students from 144 U.S. universities and laboratories, we write to express our strong support for the P5 Report.¹ This plan describes a world-leading program of discovery and we urge that it be incorporated into the plans of the DOE and the NSF.

The report proposes a compelling and balanced strategy of exploration and discovery. The funding profile is realistic. By following it, we will maintain our historic position as a global leader and reliable international partner in this exciting science. The plan invests in the strengths of the US Particle Physics Community, optimizing our resources to address the five critical and intertwined science drivers identified by P5: to exploit the Higgs boson as a new tool for discovery; to pursue the physics associated with neutrino mass; to identify the physics of dark matter; to understand cosmic acceleration, dark energy and inflation; and to explore the unknown, new particles, new interactions, and the principles that govern them.

The P5 report relies on the work of an extensive community study (“Snowmass”) commissioned by the Division of Particles and Fields of the American Physical Society, our professional society of particle physics. Over the course of a year a thousand members of our community, organized in dozens of far-flung working groups, considered the scientific opportunities in depth covering all areas of our field. This work culminated in a 10-day meeting in August 2013 where the comprehensive documentation for P5’s deliberations was completed. Then over the subsequent nine months, P5 held multiple face-to-face and virtual community meetings, and maintained an active website for community input. The resulting P5 report distilled the accumulated wealth of scientific opportunities into those that best serve the science drivers, while also making hard choices among many outstanding scientific programs. Support among our community has solidified behind this exciting report as witnessed by our attached **2095 signatures gathered in seven days**: we stand behind the P5 plan.

Now that our community has reached consensus, we look to you for the necessary support to execute this plan that will enable us to maintain and enhance our position as global leaders in this exciting program of discovery science and technological innovation.

Sincerely,
The U.S. Particle Physics Community

cc: Dr. France A. Córdova, Director, National Science Foundation
Dr. Patricia Dehmer, Director, U.S. Department of Energy Office of Science
Dr. Denise Caldwell, Director, Physics Division, National Science Foundation

¹ <http://usparticlephysics.org/p5/>



Maintaining Visibility

- There is a growing sense that now is a good time to do more. Some needs:
 - An improved brief brochure with clear messages
 - Messages where/when needed:
 - Maintain effectiveness and coherence, with project proponents and the agencies, in the context of the full P5 report.
 - Support and build upon the hard work that our colleagues are already doing, visiting decision makers with clear and effective messages when needed.
 - Timely and useful responses to questions by staffers and others



Brochure

- Brief (2 pages, based on P5 report):
 - The wonder and excitement of particle physics
 - The field has a clear direction and plan: an affordable program of great impact in the international context. A track record of success.
 - Building for discovery: clear and inspiring questions can be addressed with tools we know how to build now. The importance of sustained R&D.
- An insert (2 sides) frequently updated:
 - Recent advances
 - Asked DPF for inputs (experiment and theory). DPF also contacting sibling divisions of APS (DPB, DAP, DNP)
 - It has been a very productive year programmatically as well!
 - What's important to accomplish in the coming year
 - In close consultation with the agencies
- Circulate widely in the community for comments and suggestions (DPF et al., HEPAP, agencies, community meetings, website, target audiences,...). Also seeking advice from other fields that already do this well.



Discussion
