

**From: The U.S. Particle Physics Community**

10 June 2014

The Honorable Ernest Moniz	Dr. France A. Córdova
Secretary	Director
U.S. Department of Energy	National Science Foundation
1000 Independence Avenue, SW	4201 Wilson Blvd
Washington, DC 20585	Arlington, VA 22230

Dear Mr. Secretary and Madam Director:

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 190 U.S. universities and laboratories, we write to express our strong support for the P5 Report.<sup>1</sup> 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. 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 signatures: 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.

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<sup>1</sup> <http://usparticlephysics.org/p5/>