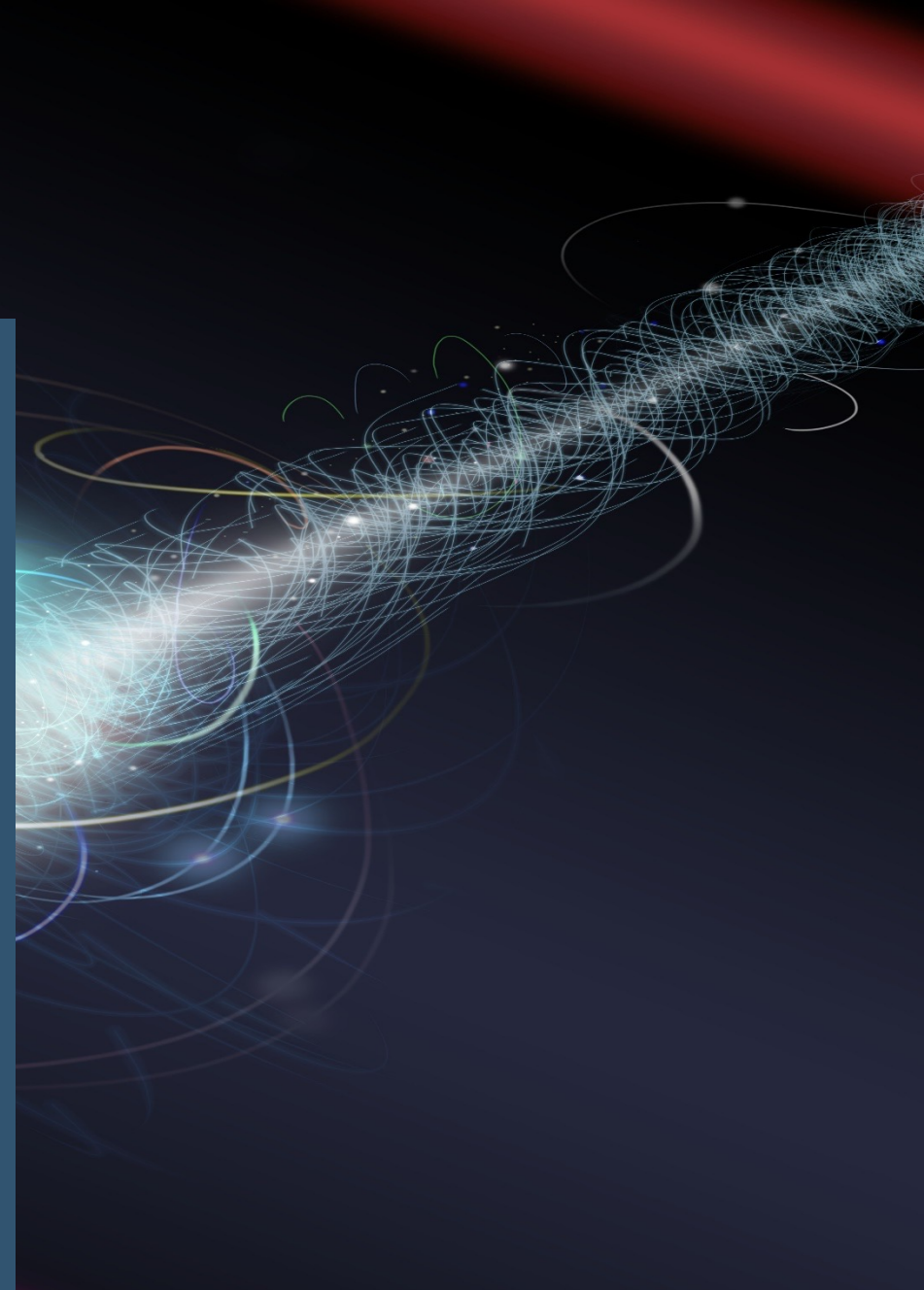


Elementary Particle Physics 2024: Progress and Promise

Committee of Elementary Particle Physics
Board on Physics and Astronomy

Dr. Maria Spiropulu and Dr. Michael Turner, EPP2024 Co-Chairs



Statement of Task – Agreed to with NSF and DOE

<https://www.nationalacademies.org/our-work/elementary-particle-physics-progress-and-promise#sectionWebFriendly>

The National Academies of Sciences, Engineering, and Medicine will convene an ad hoc committee to:

- Identify the fundamental questions in particle physics that could motivate research in the next decade and beyond, irrespective of the tools and techniques to address them.
- Distinguish which of these questions could be addressed with available experimental and theoretical tools in the coming decade and which could require new techniques or approaches.
- Suggest technical research areas that could provide particle physics with new tools needed to enable new techniques and approaches.
- Suggest different ways of thinking and alternative approaches from other areas of science that could be incorporated into and benefit the overall particle physics enterprise.

Committee Membership

- Maria Spiropulu; *Co-Chair*, California Institute of Technology
- Michael S. Turner; NAS, *Co-Chair*, The Kavli Foundation
- Nima Arkani-Hamed; NAS, Institute for Advanced Study
- Barry C. Barish; NAS, California Institute of Technology
- Philip H. Bucksbaum; NAS, Stanford University
- Marcela Carena; Fermi National Accelerator Laboratory
- Bonnie Fleming; Yale University
- Fabiola Gianotti; NAS, CERN
- David J. Gross; NAS, University of California, Santa Barbara
- Young-Kee Kim; NAS, The University of Chicago
- Hitoshi Murayama; University of California, Berkeley

- Piermaria J. Oddone; NAS, Emeritus Fermi National Accelerator Laboratory/Lawrence Berkeley National Laboratory
- J. Ritchie Patterson; Cornell University
- Fulvia Pilat; Oak Ridge National Laboratory
- Chanda Prescod-Weinstein; University of New Hampshire
- Natalie Roe; Lawrence Berkeley National Laboratory
- Tim Tait; University of California, Irvine

Staff

- Daniel Nagasawa, Study Director
- Colleen Hartman, Board Director
- Linda Walker, Program Assistant

Relationship between Snowmass, P5, and EPP2024

- Fall 2022: Snowmass 2021 provides community-based planning input to DOE and NSF's High Energy Physics Advisory Panel (HEPAP) sub-committee, P5.
- Spring 2023: P5 provides recommendations to the NSF and DOE for various budgetary scenarios in a project focused manner.
- 2023/2024: EPP2024 provides a long-term vision for Elementary Particle Physics informed by Snowmass/P5

Community Input and Call for Vision Papers

- Input from the elementary particle physics community is essential to the work of the EPP2024 Committee. The Committee welcomes short Vision Papers of a maximum length of 2000 words that concisely and compellingly articulate the scientific aspirations of the field of elementary particle physics for the next 10 to 30 years.
- The Committee will have access to the 500 or so white papers, the ten frontier reports prepared for Snowmass 2022, and the Snowmass Report, so there is no need to re-submit this material. A vision paper that synthesizes the aspirations of the various frontiers into one for the entire field would be very appropriate.
- All submissions will be posted publicly. Vision Papers should be submitted via online form and received by October 1, 2022. In addition, e-mails may be sent to the Committee with other thoughts and comments relevant to the charge at EPP2024@nas.edu and will be publicly available.

Upcoming Events

Grand Hyatt, Seattle (hybrid)

MEETING

JUL
26

MULTIDAY EVENT | JULY 26-27, 2022

[Committee on Elementary Particle Physics: Progress and Promise - Meeting No. 1](#)

Seven additional meetings will follow (hybrid)

Questions?

