The National Academies of SCIENCES • ENGINEERING • MEDICINE

DIVISION ON ENGINEERING AND PHYSICAL SCIENCES
BOARD OF PHYSICS AND ASTRONOMY

Committee on Elementary Particle Physics – Progress and Promise CERN Town Halls and February Closed Session Committee Meeting

February 14-15, 2023

On-Site Town Hall / Virtual Meeting ALL TIMES IN US EASTERN STANDARD TIME (UTC-7:00)

This agenda is a draft, subject to change, and was last updated on 2/13/2023 1:11 PM

AGENDA

TUESDAY, FEBRUARY 14, 2023

OPEN SESSION

Livestream Link: https://vimeo.com/event/2827768

US CERN Town Hall Meetings

10:00 AM / 4:00 PM CERN Local Time

Session for US CERN Early Career Particle Physics Community Moderated by Dr. Michael Turner, Co-Chair

(10-minute introduction, 70-minute discussion with Committee, 10-minute closing remarks)

- What are the big scientific questions that underpin the field?
- Which tools—new and old—are needed to address them?
- What new ideas and approaches we can incorporate from other fields?
- What challenges are we facing and how they might be we address them?
- Are there any workforce or structural issues?

11:30 AM / 5:30 PM CERN Local Time

Session for All US CERN Particle Physics Community Moderated by Dr. Maria Spiropulu, Co-Chair

(10-minute introduction, 100-minute discussion with Committee, 10-minute closing remarks)

- What are the big scientific questions that underpin the field?
- Which tools—new and old—are needed to address them?
- What new ideas and approaches we can incorporate from other fields?
- What challenges are we facing and how they might be we address them?
- Are there any workforce or structural issues?

1:30 PM / 7:30 PM CERN Local Time US CERN Town Hall Meetings Conclude

^{*} Placeholder Title – To Be Updated Closer to Meeting Date

The following information is provided for any members of the general public who may be in attendance:

This meeting is being held to gather information to help the committee in its charge. This committee will examine the information and material obtained during this, and other public meetings, in an effort to inform its work. Although opinions may be stated and lively discussion may ensue, no conclusions are being drawn nor will recommendations be made. Observers who draw conclusions about the committee's work based on this meeting's discussions will be doing so prematurely.

Furthermore, individual committee members often engage in discussion and questioning for the specific purpose of probing an issue and sharpening an argument. The comments of any given committee member may not necessarily reflect the position he or she may actually hold on the subject under discussion, to say nothing of that person's future position as it may evolve in the course of the project. Any inference about an individual's position are therefore also premature.

NOTES FOR PRESENTERS

Your presentation may not include unpublished data, ITAR controlled and/or other sensitive information.

At some point a staff member will be asking you to sign a consent form allowing us to use your presentation, specifically to post it on our website.

STATEMENT OF TASK

Task Initiated on 25 August 2021

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.