

CONVENERS MEETING

Agenda

Introduction and Goals (Jonathan)
Budget and Document Preparation (Milind)
Quick WG Updates (WG Conveners)

2 February 2023

UPCOMING DEADLINES

- In the US, Snowmass ended, P5 is beginning. P5 meeting schedule:
 - Cosmic Frontier, LBNL, Feb 22, 23
 - Neutrino, Rare Processes, High-Energy Astrophysics, FNAL, Week of Mar 20
 - Energy, Instrumentation, Computational Frontiers, Brookhaven, Apr 12-14
 - Underground, Accelerator, Theory Frontiers, SLAC, May 3-5
 - Also many town halls, closed sessions, etc. (https://www.usparticlephysics.org/p5)
- We will be asked to present FPF to P5 at the Energy Frontier meeting, Apr 12-14.
 - Energy Frontier is good: strong momentum from Snowmass ("Our highest immediate priority accelerator and project is the HL-LHC, ...including the construction of auxiliary experiments...")
 - We are asked to present as one mid-scale project. This is also good: small-scale projects (< \$50M) are typically not mentioned by name in the report and are lumped into a "small-scale bucket," which the DOE and NSF can interpret any way they want.
 - The talk should cover the science case, technical readiness, schedule and budget profile (year by year, not just total budget), and international participation.
 - Required: a document summarizing the schedule and funding profile.
 - Recommended: a ~20 page document, covering same topics as in the talk.

UPCOMING DEADLINES

- In July 2022 meeting, CERN management requested that we come back in ~8 months (so around March April 2023)
 - Should show progress: new results, new groups joining, progress in CE (core at FPF site), refined plans and budgets for experiments, progress in organizational infrastructure.
 - ECN3 discussion is underway, considering SHiP@ECN3 and HIKE (NA62 upgrade)/SHADOWS. Important for FPF to show complementarity to whatever is chosen for ECN3.
- Before the CERN management meeting, should formally present FPF to the DOE and NSF (so around March - April 2023). Rationale:
 - FPF was highly recommended by the community at Snowmass.
 - As a courtesy before presenting to CERN, should present to DOE.
 - NSF is supporting FASER operations (~\$1.5M).
 - BNL is now making a significant investment in FPF, FLArE (~\$1M, see Milind's talk)

 Given the near coincidence of deadlines, we should try to prepare 1 document to satisfy all needs. FPF white paper will be a very useful starting point, but good to show momentum and progress since then.

ORGANIZATIONAL INFRASTRUCTURE

- New working group structure established before FPF5 to organize the work and provide contact names for new people interested in the FPF.
- Each Physics WG established goals for FPF5, February 2023, and the CDRs, with detector WG liaisons providing detector performance input.

Steering Committee: Jamie Boyd, Jonathan Feng, Felix Kling

WG0 Facility: Jamie Boyd

hysics WGs

WG1 Neutrino Interactions: Juan Rojo

WG2 Charm Production: Hallsie Reno

WG3 Light Hadron Prod: Luis Anchordoqui, Dennis Soldin

WG4 BSM: Brian Batell, Sebastian Trojanowski

WG5 FASER2: Josh McFayden

WG6 FASERnu2: Aki Ariga, Tomoko Ariga

WG7 FLArE: Jianming Bian, Milind Diwan

WG8 AdvSND: Giovanni De Lellis

WG9 FORMOSA: Matthew Citron, Chris Hill

| WG Liaisons | WG5 FASER2 | WG6 FASERnu2 | WG7 FLArE | WG8 AdvSND | WG9 FORMOSA |
|-------------|---------------|----------------------------|----------------------------|-------------------------|----------------|
| WG1 | Josh McFayden | Aki Ariga, Tomoko Ariga | Steve Linden, Wenjie Wu | Antonia Di Crescenzo | Matthew Citron |
| WG2 | Josh McFayden | Aki Ariga, Tomoko Ariga | Steve Linden, Wenjie Wu | Antonia Di Crescenzo | Matthew Citron |
| WG3 | Josh McFayden | Aki Ariga, Tomoko Ariga | Steve Linden, Wenjie Wu | Antonia Di Crescenzo | Matthew Citron |
| WG4 | Josh McFayden | Aki Ariga, Tomoko Ariga | Steve Linden, Wenjie Wu | Cristovao Vilela | Matthew Citron |

20-PAGE DOCUMENT FOR P5 (& DOE, NSF, CERN)

Proposed outline

- Science case (4 pages): old and new results from WGs 1, 2, 3, 4
- Technical readiness (10 pages): CE status from WG 0 (possibly including core results), updates on detectors from WGs 5, 6, 7, 8, 9
- Schedule and budget profile (3 pages): See Milind's talk
- International participation (2 pages): hopefully some tentative understanding emerges from meetings with DOE, NSF, CERN that if FPF goes forward, CERN pays host lab cost (~\$40-50M for cavern), US and others fund the experiments

Proposed timeline for preparing document

- February 24 (3 weeks from now): Physics results fixed (~1 plot each for WGs 1, 2, 3, 4),
 "raw" text for expts, budget numbers entered into spreadsheet from WGs 5, 6, 7, 8, 9
- March 3: 1st draft completed by professional preparer (BNL) and editor group (~5 people)
- March 10: comments due
- March 17: final draft completed
- March 22: document sent to P5 (with 1 week contingency, gives P5 ~2 weeks to read it)
- End of March: present document to DOE, NSF
- Early April: present document to CERN management
- April 12-14: present document to P5
- [FPF6 planned for late April or May 2023]