

DUNE - Updates and News

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Collaboration Call

4 Sep 2020

Since last meeting 1 week ago..

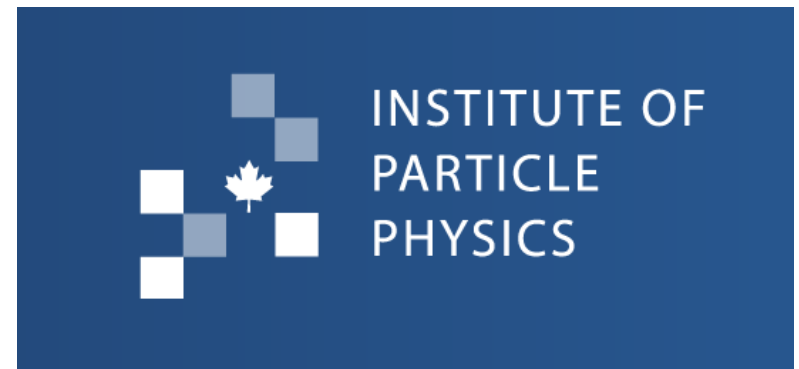
- BSM paper submitted to arXiv
 - Submitted to arXiv (<https://arxiv.org/abs/2008.12769>) and EPJC
 - Final episode of the TDR Physics Trilogy
 - Thanks to Lisa Koerner, Alex Sousa, Jae Yu, and the members of the Analysis Review Committee, Albert De Roeck (chair), John Beacom, Alex Friendland, Jen Raff, and Kate Scholberg.
- ProtoDUNE-DP operations ended this week
 - Major milestone for DUNE
 - We will have reports at next Collaboration Meeting
 - Planning for Phase II progressing
- Background Mitigation Workshop and Review
 - Background calculations, cross-section uncertainties, material property uncertainties, methodology
 - Effects of backgrounds on the science programme and mitigations
 - Expect final report soon (first discussion at yesterday's EB)

Since last meeting 1 week ago..

- Near Detector CDR (DUNE DocDB 19096) under review by LBNC
 - LBNC-ND Management met with LBNC ND reviewers on August 31
- Main questions and comments being addressed
 - A. More information on management
 - B. More discussion of R&D plan
 - C. More discussion of readout electronics and DAQ
 - D. More details in Computing Chapter
 - E. More explicit statement on prioritisation of physics programme (oscillation vs. non-argon cross sections and BSM)
 - F. Clarifications on requirements
 - G. Message on modelling of cross-sections needs clarification
 - I. DUNE-PRISM and cross-section measurements in tension?
 - II. The usefulness of the non-argon physics program
 - III. The utility of the SAND data for DUNE-PRISM.
 - H. More details on the expected performance of the various detectors and their design parameters.

DUNE in Canada

- Yesterday the Canadian IPP Scientific Council unanimously approved DUNE becoming the latest IPP Project.
- University of Toronto (Nikolina Ilic) and York University (Claire David, Debbie Harris).
- A temporary DUNE IPP webpage has been created:
<https://particlephysics.ca/research-activities/projects-construction/?lang=en>
- Congratulations to DUNE-Canada for achieving this important milestone for DUNE.



DUNE Collaboration Week

- We will hold a DUNE Collaboration Meeting during the week September 21-25.
- The plan is to follow the usual Collaboration Meeting structure (but remotely via ZOOM) with times that allow participation over most time zones (8 am – 2 pm).
- Two days of plenary and three days of parallel.
- Conveners of parallel sessions should contact Maxine with their requests.
- Please register at <https://indico.fnal.gov/event/22617/>

DUNE Glossary

- Anne, Brett and Claire have produced an HTML version of the DUNE glossary, as it had evolved for the TDR (and continues to evolve).
- The purpose is two-fold:
 - make it accessible for the collaboration as a stand-alone reference, and
 - single-source the definitions for multiple uses (the code is in a DUNE GitHub repository).
- All collaborators are welcome to submit updates (instructions provided).
- The glossary is at <https://abc.dunescience.org/>
- A help page, <https://abc.dunescience.org/help.html>, linked from the glossary, instructs collaborators on how to add or change a term/definition. A couple of people have already found the instructions and offered updates!
- The github source is synched with Overleaf so that present and future documents can pull glossary.tex in from its Overleaf home.
- The ABC DUNE team:
 - A. Anne Heavey, who helped, composed this email, and worked on the Overleaf side
 - B. Brett Viren, whose technical help can never be overrated
 - C. Claire David, who had this great idea and did most of the work to implement it

Upcoming Events

- DUNE Executive Board (Sep 3)
- LBNC Meeting (Sep 14-16)
- Cold Electronics Workshop – Part II (Sep 14-17)
- Ionisation Laser Penetration Design Review (Sep 16-18)
- DUNE Collaboration Meeting (Sep 21-25)
- RRB Meeting (Oct 8)
- International Neutrino Council (Nov 16-18)

Today's agenda

9:00 AM → 9:10 AM **DUNE Status and News**

Speakers: Ed Blucher (University of Chicago), Stefan Soldner-Rembold (University of Manchester)

9:10 AM → 9:40 AM **Status of Iceberg**

Speaker: Shekhar Mishra (Fermilab)

9:40 AM → 10:00 AM **Neutrino Interaction Physics in the ND**

Speaker: Mateus F. Carneiro (Brookhaven National Laboratory)