

Demonstrator Workshop – First Conveners Meeting

15:00 Central European Time, 2024-03-22

Present:

Chris Rogers
Akira Yamamoto
Diktys Stratakis
Emilio Nanni
Mamad Eshraqi
Ryuichiro Kitano
Sarah Cousineau
Sergo Jindariani

Agenda:

- Introduction to the cooling demonstrator
- Fermilab site
- Dates proposal
- Important topics to cover & block agenda
- Discussion

Actions:

- Sergo/All: verify that there are no constraints on the proposed dates, 12th to 13th September (first preference) or 23rd to 24th (second preference)
- All: brainstorm possible talks, for discussion next time

Chris introduced the demonstrator concept and gave an overview of the workshop

We discussed the scope of the demonstrator & basic requirements. The plan is for a roughly 50 m long accelerator. We would need about 10 kW of beam power. We would need a few ns pulse length to get high enough instantaneous current.

Sergo presented the opportunities for Fermilab as a host site. We discussed potential dates, leaning towards September but noting the following conflicts

- 1-6 September: Applied Superconductivity Conference
- 8-13: Fermilab ACORN controls review
- 16-20: Space Charge, NuFact (Argonne), CMS week
- 23-27: Council week

We identified 12th - 13th September as a first preference and 23rd - 24th September as a second preference.

We discussed possible topics, such as: technical reports on the design work done so far on the demonstrator; RF developments such as existing and future test stands and ideas for RF breakdown mitigation; magnet developments; discussion of possible R&D and opportunities at different sites; future/alternative ideas for cooling (PSI, JPARC, etc). We felt it would be useful to specify a list of areas to explore on future sites.

We drilled down to about 5 potential sessions:

- Overview and demonstrator cooling design
- RF technology and R&D
- Magnet technology and R&D
- Host sites and what they can provide for the programme

- Synergies and alternative ideas

For next time - we agreed to start brainstorming ideas for detailed talks and to try to flesh out an agenda.

Date of next meeting: Chris proposed rotating the time zone forwards by 8 hours, in order to provide a balance on constraints in different regions.