Particle Physics Faculty Meeting

- Agenda
  - News & Updates
  - Committees round table
  - Q/A with Jens

TRIUMF

COVID-19

- Curtailing all non-essential onsite research activities until at least April 30
- Virtual town hall today at 2:30pm
- In case of questions: covid19taskforce@triumf.ca

- New Health and HR protocols:

- **TRIUMF COVID-19 Response Plan**
- **https://documents.triumf.ca/docushare/dsweb/Get/Document-180787**

- **TRIUMF COVID-19 Absence, Sick Leave & Return to Work Guidelines for Supervisors**
- **https://documents.triumf.ca/docushare/dsweb/Get/Document-180896**

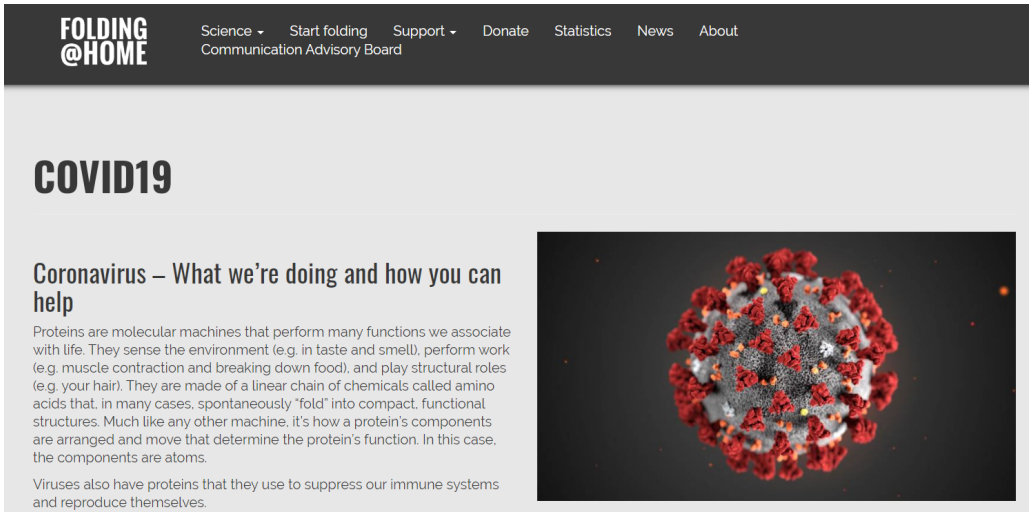
- COVID-19 Employee Resources and Lab Policy & Procedures
- https://www.triumf.ca/COVID-19%20RESOURCES

- Please review!

updates

Computing:

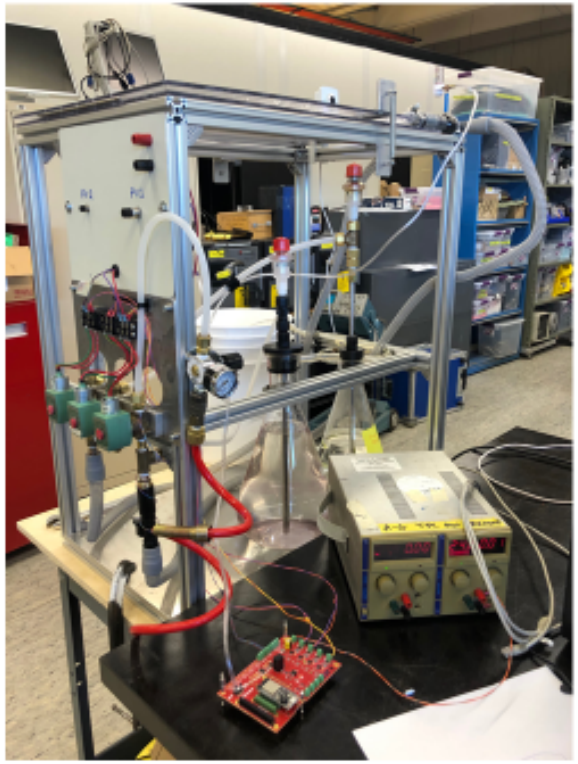
As of last weekend, we have put to work about 500 cores at TRIUMF for the Folding@Home (FAH) project using a local installation (Tier 1)

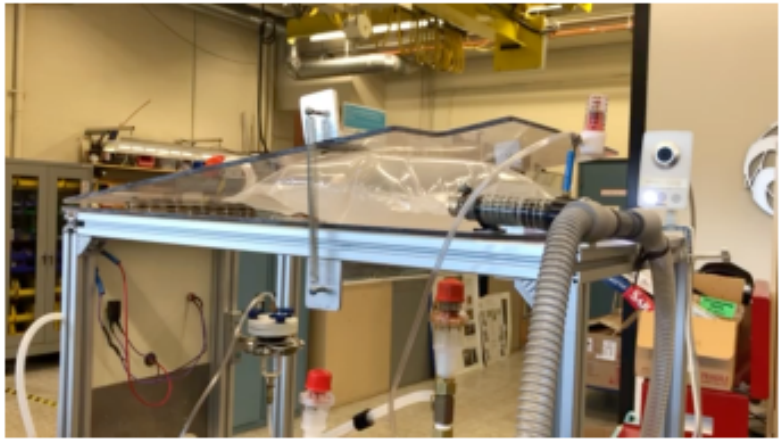


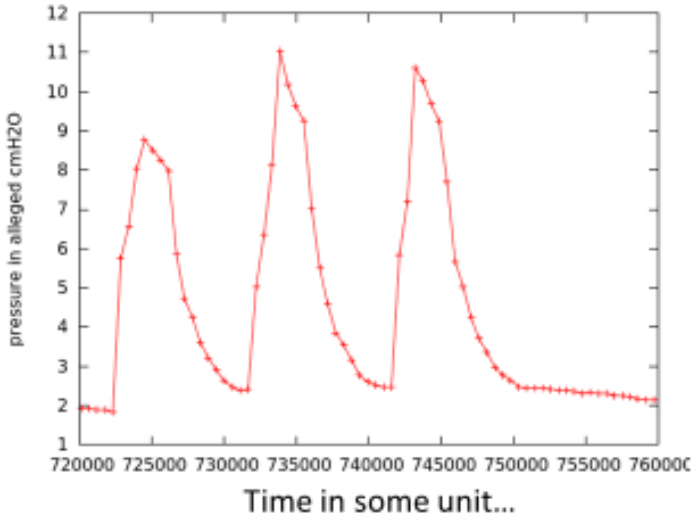
Funding:

HyperK
Patrick de Perio (PI) and team were awarded an NFRF - Exploration grant for Super-K/Hyper-K calibration and machine learning ($250K)

TRIUMF ventilator prototype





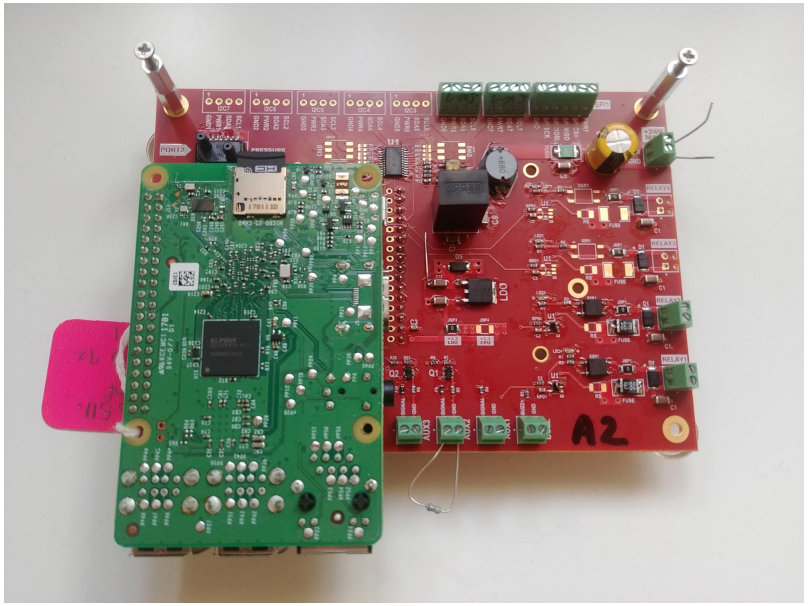


Large Sci Tech team

- Mechanical and gas system : C.Lim, P. Lu, R.Maharaj
- Electronics hardware: D. Bishop, M. Constables, P. Margetak
- Software/firmware: A. Capra, T. Lindner, L. Martin, K. Olchanski, B. Shaw , B. Smith
- Coordination: P.A. Amaudruz, N. Massacret, F. Retiere

Deliverables

- Mechanical system (only for proto)
- Electronics board prototype
- Software/firmware for final product



Particle Physics Mission (public)

- Jens asks us to review our Mission:
- https://www.triumf.ca/sites/default/files/Science%20Division%20Mission%20Statement_February%202010.pdf

Particle Physics Mission Statement

* Lead world-class Particle Physics experiments in strong collaboration with Canadian universities.
* Provide, maintain, and exploit the specialized, centralized facilities at TRIUMF required for Canadian scientists to perform state-of-the-art particle physics experiments here, elsewhere in Canada, and abroad. This includes development of beams, detectors, electronics, data acquisition, computing facilities and data analysis.
* Train students and young scientists to become leaders in Canada's future scientific endeavours. Train HQP in electronics, computing and detector technology.

Undergraduate Student hires (follow up)

- Made the case to Marcello and HR that a lot of particle physics experiments that operate in a collaboration are quite well setup and have experience with remote work done and efficient supervision through video and other means as often the teams are spread over various countries and groups
- Canadian Government just announced to include summer student jobs for Canada Summer Jobs program -> presumably TRIUMF is not eligible

- HR response so far:
  - “While we have suspended our student programs, if you are seeking an exception to this, Jens and Reiner would need to support it. We would also need to ensure there are appropriate supervisory supports in place.”
- Jens is open to deal with such requests on a case by case basis

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LRP in Canada, US

- NSERC, IPP and CINP, are launching the next Canadian Subatomic Physics LRP exercise
- The IPP and CINP will be preparing briefs to be submitted to the LRP Committee in early autumn
- Virtual Town Hall meeting June 8th will be drawn-up based on the responses sent by April 30

- U.S. particle physics community will be engaged in Snowmass 2021
- Planning Meeting at FNAL Nov 4-6, ending with a Summer Study at UW, July 11 - 20, 2021
- Letters of Interest (submission period: April 1, 2020 – August 31, 2020)
- Contributed Papers (submission period: April 1, 2020 – July 31, 2021)
- Snowmass Town Hall meetings with open mic, next one April 18

- Astroparticle Community Planning Exercise from McDonald Institute
- Aims to capture the priorities of Canadian astroparticle physics researchers
- A board of 8 co-working field chairs has been selected to ask the broader physics community to explore four key areas of interest

- Discussed with Jens: Encourages submissions from groups and individuals but not institutional departments. TRIUMF will submit as a whole directly to the LRP committee.

ACOT

- April 23-24
- Scaled back meetings will not take place. Instead, there will be a 2 hour videoconference call (2pm to 4pm Pacific Time on April 23) with ACOT, focused on the pandemic response. The scope of attendees for the April 23 videoconference is still to be confirmed. More information will follow in the days ahead.

Science Week

- August 17-21 (from Particle Physics: Beatrice, David M., Oliver have been volunteered to help)
- From Reiner and Jens: Use the meeting as a first step in the process to develop a 20-year vision
- Aside from the TUG-AGM we could use the other 4 days of the week for discussions of:
  - ARIEL science program (Nuclear (Structure/Astro/Fund. Symmetries), Materials, Life Sciences)
  - Life Sciences Program (incl. IAMI)
  - Particle Physics (on-site and off-site)
  - Materials Science program (MuSR, neutrons, THz?)
  - Accelerator based science programs and associated technologies that might expand our local program (e.g. THz radiation, neutron, neutrinos, high-power accelerators, etc.)
  - Support for International Accelerator projects (e.g. HL-LHC, EIC, Dune, HyperK)

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Science Week: Particle Physics

- Invited theory talk(s): The Big Questions over the next 10-20 years

- Opportunity to hear about the strategic planning exercises elsewhere
  - European Particle Physics Strategy - ask Brigitte Vachon as Canadian/NA representative
  - SNOWMASS process – ask for speaker
  - *(SNOMASS/MI process – ask Tony Nobel could be part of CINP/IPP)*
  - Canadian SAP-LRP process – ask for CINP/IPP speaker

- Particle Physics (on-site and off-site)
  - UCN, ATLAS, ALPHA, HyperK, SNOLab in 10 years (intermediate point useful for 20-year future)
  - Support for International Accelerator projects (e.g. HL-LHC, Dune, HyperK, FCC, ILC, CEP/PPC)
  - Plans for Workshop on New Directions in Fundamental Physics for a 10 & 20 year vision

- Science and Technology
  - Technologies for detectors vision, including DAQ (Fabrice?)
  - Quantum sensing overview/outlook (Woitec to suggest invitee)
  - User based shared tech facilities (eg along lines of MRS)
  - Potentially cryo and cooling techniques since will play large role in subatomic physics in general

Committee Updates

- IPP/MISnomass/Snowmass
- New Initiative Planning
- Seminar/Colloquia
- Safety
- Space
- 5S
- Academic
- Summer schools
- Health & Wellness
- Data Science
- Diversity committee
- Physical Sciences Division Structure
- PPR Working Group

Next Meeting

- May 14th 12:30 BlueJeans Video
- Increase frequency to twice a month while remote work continues or setup a teams chat?

- Happy Easter break!