NA61 BEYOND 2020 DISCUSSION POINTS: NEUTRINO MEASUREMENTS

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28 July 2017

General comments on NA61 and neutrino experiments

- The number of desired measurements is huge, and the motivations are very strong!
- An excellent physics program for NA61 beyond 2020 could be put together.
- We should write a report on this program, with information roughly as follows:

Neutrino flux measurement possibilities

MOTIVATION	PARTICLES/ ENERGIES	NEW CONFIGURATIONS/ CHALLENGES	TIMESCALE	COMPETITION

Major new capabilities needed?

- Larger energy range (mostly lower)
- Very long target capabilities
- Additional upstream tracking detectors for long targets

Issues for the neutrino measurement program

- How long would the NA61 neutrino program run? Through next decade? Detector and (especially) electronics aging and maintenance could become an issue.
- Physicists who are interested in these results must contribute: NA61 is a physics collaboration, not a user facility, so we need new groups to join NA61 to see these measurements come to fruition.
- How to prioritize different measurements given limited run time?

Issues for the neutrino measurement program

- How does NA61 fit in with other proposed programs for hadron production measurements?
  - US-Japan emulsion proposal
  - Ex-situ LBNF horn mockup and spectrometer
- NA61 needs a *fairly near-term* infusion of manpower and resources to continue. It would be unfortunate if proposals for these other projects divert support/effort away from NA61, especially if they are long-delayed or not funded.
- Let's try to coordinate to make sure we have necessary hadron production data!

Thanks for coming to the workshop!