Magnet progress

- Pre-series permanent magnet blocks received at CERN two weeks ago
  - Pre-series is 36 blocks, 4 of each type (to allow an quality check and assembly test)
  - Magnetic measurements of these show they are within specified tolerances
  - Dimensions checked for a few blocks with go/no-go gauge test and are also within specified tolerances
- First yoke cylinder received at CERN (see next slide)
- Machined arrived yesterday
- Now plan assembly test with pre-series setup, in order to release production of permanent magnets before the Christmas break (important this is done to preserve the schedule) – total set of blocks is 690
Test assembly in next days to sign off on production magnetic blocks
Commissioning in ENH1

Space in ENH1 has been cleared out.
Starting to work on setting this up for commissioning tests in early 2020.
FASERnu Approved

FASER's new detector expected to catch first collider neutrino

The first-of-its-kind detector could initiate a new era in neutrino physics at particle colliders

17 DECEMBER, 2019   |   By Ana Lopes

Illustration of the FASER experiment. The new FASERnu detector, which is just 25 cm wide, 25 cm tall and 1.35 m long, will be located at the front of FASER's main detector in a narrow trench (yellow box in the bottom right of the image). (Image: FASER/CERN)

No neutrino produced at a particle collider has ever been detected, even though colliders create them in huge numbers. This could change with the approval of a new detector for the FASER experiment at CERN. The small and inexpensive detector, called FASERnu, will be placed at the front of the FASER experiment’s main detector, and could launch a new era in neutrino physics at particle colliders.

Ever since they were first observed at a nuclear reactor in 1956, neutrinos have been detected from many sources, such as the sun, cosmic-ray interactions in the atmosphere, and the Earth, yet never at a particle collider. That’s unfortunate, because most collider neutrinos are produced at very high energies, at which neutrino interactions have not been well studied. Neutrinos produced at colliders could therefore shed new light on neutrinos, which remain the most enigmatic of the fundamental particles that make up matter.
Have a good (and restful) Christmas break....

2020 will be a super exciting and critical year for FASER