# WELCOME AND INTRODUCTION

2<sup>nd</sup> Forward Physics Facility Meeting (FPF2) 27-28 May 2021

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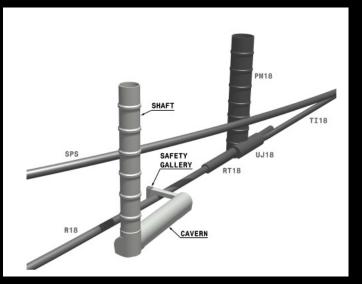


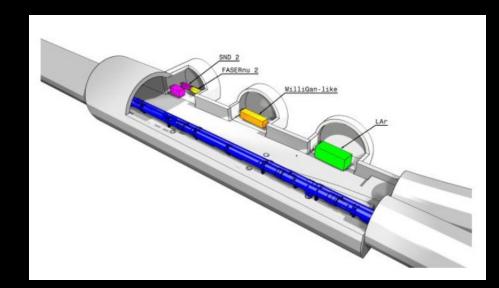




### FORWARD PHYSICS FACILITY

- The FPF Kickoff Meeting was held in November 2020. Significant progress since then:
- Updated structure of Physics Beyond Colliders at CERN, including an FPF Working Group [Arduini].
- Civil engineering, including development of the new cavern and alcove options [Balazs].





## **EXPERIMENTS AND PHYSICS POTENTIAL**

- MilliQan/FORMOSA [Citron]
- FLArE [Trojanowski, Diwan, Resnati]
- FASER/FASER2 [McFayden]
- SND/SND2 [Di Crescenzo]
- FASERv/FASERv2 [Ariga]

### 25 March 2021

### **CERN Bulletin**

### LS2 REPORT: FASER IS BORN

FASER, the Forward Search Experiment, has been installed in the LHC tunnel during Long Shutdown 2. It is currently being tested and will start taking data next year

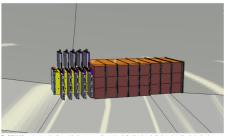


The final elements of FASER were put into place this month. (Image: CERN)

### 27 April 2021

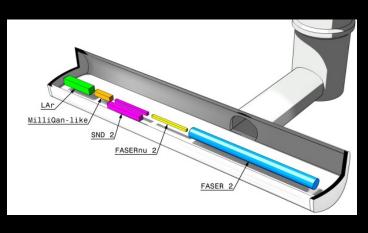
**CERN approves new LHC experiment** SND@LHC, or Scattering and Neutrino Detector at the LHC, will be the facility's ninth experiment

27 APRIL, 2021 | By Ana Lopes



The SOBICL's operiment consist of an emulsion/hungten target or reactives (ptolos) interleaved with electronic tacking device (pto), Miblende downterms by destacts brienes (is device) from one and measure to energy of the endinors, major Athino Congarity (DBURC) The world's largest and most powerful particle accelerator is getting a new experiment. In March 2021, the CERN Research Board approved the ninth experiment at the <u>Larger Hadron Collide</u>: SNDBUKC, O Stattering and Neutrino Detector at the LHC. Designed to detect and study neutrinos, particles similar to the electron but with no electric charge and very low mass, the experiment will complement and extend the physics reach of the offset LHC experiments.

SMDBUHC is especially complementary to EASERy, a neutrino subdetector of the FASER experiment, which has just recently been installed in the LHC tunnel. Neutrinos have been detected from many sources, but they remain the most enigmatic fundamental particles in the universe. FASER wand SNDBUHC will make measurements of neutrinos produced at a particle collider for the first time, and could thus open a new fronter in neutrino physics.



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The FASER experiment fillustrated will search for hard-to-spot particles at the Large Hadron Collider. That includes neutrinos, for which scientists will use the FASER of elector (jetilow, in the trench at right). A pilot version of the detector just reported its first results. FASER/CRM

... and the physics cases for these and other interesting ideas [All]

### NOTES ON THE PROGRAM

- Zoom links have been sent to registrants and are also now posted on the indico site. Note the different links for the parallel sessions.
- In each session, ~20 minutes is set aside for "Further thoughts and discussion." Following the successful example of the kickoff meeting, these are led by a chair/moderator/provocateur and we hope for open and free-flowing discussions. This meeting is not recorded.
- Speakers and chairs: please stay on time; there is no buffer between sessions. Felix and Maria: "more German than Italian."
- At the end of both today and tomorrow, we will discuss future meetings (FPF3 and FPF4) and publication plans (short paper and long whitepaper). We look forward to your advice and contributions!