

## T 154: Invited Overview Talks IV

Time: Friday 13:30–14:00

Location: HSZ/AUDI

**Invited Talk**

T 154.1 Fri 13:30 HSZ/AUDI

**ECN3: Experimental Opportunities at a Future High-Intensity Proton Facility at the CERN SPS (BDF/SHiP and HIKE+SHADOWS)** — ●ANNIKA HOLLNAGEL — JGU Mainz

Within the framework of the CERN Physics Beyond Colliders (PBC) initiative and as an essential part of the European Strategy for Particle Physics, an upgrade of the existing ECN3 experimental hall will enable a diverse physics program at the CERN SPS and complement research at the energy frontier.

Competitive Letters of Intent have been submitted for experiments at the facility, focusing on either Kaon physics or the Hidden Sector:

BDF/SHiP aims to exploit the full potential of a dedicated Beam Dump Facility (BDF) in the Search for Hidden Particles (SHiP), cover-

ing a wide range of the Hidden Sector while also offering a rich neutrino physics program.

The combined approach of HIKE+SHADOWS - running part-time in beam dump or Kaon mode - on the other hand would allow to further pursue Kaon research by NA62-successor HIKE (High-Intensity Kaon Experiment), while also providing Hidden Sector sensitivity with off-axis experiment SHADOWS (Search for Hidden And Dark Objects With the SPS).

This talk will give an overview of the physics capabilities of the proposed experiments - all offering excellent options for research at a future high-intensity proton facility at ECN3. With significant German contribution and extensive efforts in R&D, further insight can be gained from the various talks at this conference.