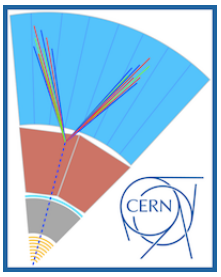

Contribution ID: **48** Type: **not specified**

SHADOWS at the SPS

Wednesday 2 November 2022 16:20 (25 minutes)

SHADOWS is a new experiment proposed at the CERN North Area to search for a large variety of FIPs produced in the interactions of a proton beam with a dump. It will use the 400 GeV primary proton beam extracted from the CERN SPS currently serving the NA62 experiment and will run concurrently to HIKE when the line is operated in beam-dump mode.

SHADOWS can expand the exploration for a large variety of Feebly-Interacting Particles (FIPs) well beyond the state of the art in a region of the parameter space that is allowed by cosmological and astrophysical observations.

The relatively small size, the relative low cost, and the excellent physics reach makes SHADOWS one of the most compelling opportunities to search for FIPs at CERN in the next decade.

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Session Classification: New results and LLPs around the globe