# The CERN Beam Dump facility and the Proposed SHiP experiment: Physics Case and Opportunities for German groups

Introduction

Heiko Lacker, (HU Berlin) 26.03.2020

#### A virtual Welcome!

On behalf of the German SHiP groups (Berlin, Bonn, Hamburg, Jülich, Mainz): Welcome to this virtual workshop!

We hope that you are all well!

A particular welcome to the external speakers (E. Elsen, J. Jäckel, C. Vallée, M. Lamont;

A. Golutvin, N. Serra, R. Jacobsson (SHiP);

G. Wilkinson (tauLFV))

and to W. Ehrenfeld (PT DESY)

Hopefully, the internet works reasonably well

#### **Practical Issues**

- \* If you have not registered yet, please do so now:
  It eases short-term announcements about technicalities
- \* If you are a presenter:
  - please upload your talk well in advance
  - please always say, which slide you are on
- \* Please mute always, if you are not speaking
- \* Please switch off your camera (to save bandwidth)
- \* If possible, do not use Wireless (not trivial these days)
- \* If possible, please use a headset

## Goal of the workshop

- \* Expect decision on SHiP/BDF approval to go for TDR in 2020
  - → TDR phase up to 2023/24
- \* BMBF strategy meeting end of May 2020 (after CERN council) to prepare announcement of the next funding period (2021-2024)
- \* The stronger the German interest/contributions for SHiP/BDF, the higher the chance for support of the TDR phase & beyond
- \* This workshop provides the opportunity to start discussing interest/contributions from new groups as input to the BMBF strategy meeting end of May

## Content of the workshop

#### 26.3.2020

- \* Embedding in Physics Beyond Collider and ESPPU
  - "The preparatory study of the BDF facility is now mature and a decision should be taken on its implementation following this Strategy update." (ESPPU briefing book)
- \* Physics case for Dark-Sector Physics, Beam-Dump Facility@SPS
- \* Two talks about *SHiP*
- \* One dedicated talk about tauLFV

#### **Content of the workshop**

27.3.2020

- \* More details on the SHiP experiment as a technical project
- \* Presentations on three subdetector systems (Straw Tracker; Surround Background Tagger; ECal) as well as on Electronics with significant German contributions
- \* Present already performed/planned physics measurements: muon flux; charm production
- \* Final discussion
  - → Also opportunity launch discussing possible interests or arrange for dedicated follow-up meetings