

Andrey Golutvin
Imperial College / CERN

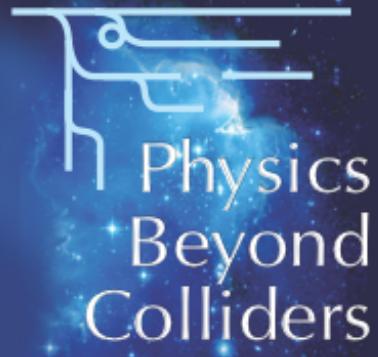
***WELCOME to the 8th SHiP collaboration meeting
News & Objectives of this meeting***



Extract from the draft minutes of the CERN Research Board

4.12 The SPSC has reviewed the proposal for “A Facility to Search for Hidden Particles (SHiP) at the CERN SPS” submitted in April 2015. The review included questions from the referees that were all answered, including submission of an addendum in October 2015 [6]. Significant progress has been made during the review, including optimisation of the proton beam-dump design, broadening of the physics case and adaptation of the schedule to external constraints. The SPSC supports the motivation for the search for hidden particles, which will explore a domain of interest for many open questions in particle physics and cosmology, and acknowledges the interest of the measurements foreseen in the neutrino sector. The committee encourages the proponents to further explore the potential benefit of inputs from NA62 to strengthen the experimental evaluation of backgrounds and systematic uncertainties. **The Research Board endorsed the recommendation from the SPSC that the collaboration should perform a comprehensive design study, focussed on the SHiP detector, including detailed simulations of the response to the signal and background signatures and comparisons with alternative search programmes; it should be performed in close collaboration with the Physics Beyond Colliders study group (discussed in item 2), which will consider physics motivations and technical optimisation of a beam-dump facility at CERN and other possible experiments that might use it. The study should be completed in time for the next update of the European Strategy for Particle Physics, on the timescale of three years, and the decision on approval will be taken following the conclusion of that update.**

See talk of Mike Lamont for more details



Physics Beyond Colliders Kickoff Workshop

6-7 September 2016
CERN
Europe/Zurich timezone


- Overview
- Scientific Programme
- Call for Abstracts
 - View my Abstracts
 - Submit Abstract
- Timetable
- Registration
- Participant List
- Accommodation

Organisation

- ✉ PBC2016.ctee@cern.ch
- ☎ +41754113293

The aim of the workshop is to explore the opportunities offered by the CERN accelerator complex and infrastructure to get new insights into some of today's outstanding questions in particle physics through projects complementary to high-energy colliders and other initiatives in the world. The focus is on fundamental physics questions that are similar in spirit to those addressed by high-energy colliders, but that may require different types of experiments. The kickoff workshop is intended to stimulate new ideas for such projects, for which we encourage the submission of abstracts.

Organizing Committee: Joerg Jaeckel, Mike Lamont, Connie Potter, Claude Vallée

 **Starts** 6 Sep 2016 08:00
Ends 7 Sep 2016 18:00
Europe/Zurich

 CERN
500-1-001 - Main Auditorium

 Mike Lamont
Claude Vallee
Joerg Jaeckel

 Materials

 Physics-Beyond-Colliders-mandate.pdf

Next steps for SHiP

- ✓ *Many new ideas on the SHiP optimization since TP*
- ✓ **Agree on the new optimized SHiP layout → main goal of this workshop**
- ✓ *Evaluate sensitivities for the optimized SHiP → prepare a document by
December 2016*
- ✓ **Stay tuned to start preparation for TDR → Summer 2017**
*Clear understanding of the responsibilities
and project organization by that time
(Details are in the Richard's report)*

Main SHiP topics for discussion

- ✓ *New design of the muon shield
(including magnetization of the hadron stopper)* *Today*
- ✓ *Decay volume: Vacuum options vs Helium bag option
(ideas for new options of the HS tracker are welcome,
in particular if He option works)* *Tomorrow morning*
- ✓ *SBT/UVT: Li Sci option, Plastic Sci option (new)* *Tomorrow morning*
- ✓ *PID: Importance of PID for the choice of the
He option, solutions for ECAL*
- ✓ *New layout of the tau neutrino detector* *Tomorrow afternoon*
- ✓ *Physics (new ideas)* *Wednesday morning*
- ✓ *Reports by Physics and Technical coordinators* *Wednesday afternoon*
 - *Plans towards SHiP optimization paper*
 - *Project status and plans*