

# **SEPTA Meeting at Sussex (6 December 2017)**

## **Report of Contributions**

Contribution ID: 1

Type: **not specified**

## **Consortium meeting (Faculty only)**

*Wednesday, 6 December 2017 12:00 (1 hour)*

Contribution ID: 2

Type: **not specified**

## **A study of diffractive scattering with the ATLAS/ALFA experiment**

*Wednesday, 6 December 2017 14:10 (25 minutes)*

**Presenter:** LIND, Alexander Pedersen

Contribution ID: 3

Type: **not specified**

## **WW production with a jet veto made simple(r)**

*Wednesday, 6 December 2017 14:40 (25 minutes)*

**Presenter:** ARPINO, Luke (University of Sussex)

Contribution ID: 4

Type: **not specified**

## Investigating Higgs decays at one-loop in the Standard Model Effective Field Theory

*Wednesday, 6 December 2017 15:10 (25 minutes)*

We investigate flavour-conserving and flavour-violating Higgs decays at tree-level and at one-loop in the dimension-six SMEFT. We conduct a full NLO calculation for  $h \rightarrow b\bar{b}$  and  $h \rightarrow \tau\tau$  in the case of two non-zero Wilson coefficients. Using on-shell renormalisation for the physical parameters and the  $\overline{\text{MS}}$  scheme for the chosen Wilson coefficients, divergent bare amplitudes are made finite for real Wilson coefficients in the  $R_\xi$  gauge. Simple constraints are then made on the Wilson coefficients and their off-diagonal elements at tree-level. We discuss the validity of the method and its application to Higgs sector measurements at current and future collider experiments.

**Presenter:** BOLTON, Patrick (University College London)

Contribution ID: 5

Type: **not specified**

## **QCD corrections in neutrinoless double beta decay**

*Wednesday, 6 December 2017 16:05 (25 minutes)*

**Presenter:** GONZÁLEZ, Marcela (UTFSM)

Contribution ID: 6

Type: **not specified**

## **Theoretical Particle Physics: the challenges ahead**

*Wednesday, 6 December 2017 16:35 (25 minutes)*

**Presenter:** SANZ GONZALEZ, Veronica