

## Minutes - S&A WG meeting from 2 October

We decided to keep the TB between 11 – 17 Nov. and if it is necessary, we can ask for a few more days at the end of November.

About MC simulations, 3 main points were discussed:

1. LUXE possible interest:
2. Experiments with photons for our calorimeter prototype could be subdivided in two directions:
  - study of isolated photon showers
  - Investigation of two close showers (e+gamma) separation.
3. "Backscattering" from the showers in calorimeter.

About LUXE, Maryna and Sasha will do simulations for it. First of all they will check the physic lists from G4 in order to check the beamstrahlung generation at very, very low angles. The results should be complementary to LumiCal. For LUXE is not clear if the magnet is necessary, Sasha will do the simulations and he will put different targets, like Cu and W.

About our LumiCal prototype, we still looking for volunteer ... **Ivan** will start to simulate different geometry for our TB set-up in order to get with a high precision on the impact point in the calorimeter. First he will start with previous geometry used for 2016TB. He will use different target thickness. These simulations are important in order to avoid multiple-backscattering in the air. On the last TB the multiple-backscattering in the air was underestimated.

**Bogdan** has some MC simulation for 2016TB geometry, so he will help Ivan.

**Sergej** wants to know, one week before the TB, where is the exact position of the Telescope planes and where should they put the movable stage because he needs the crane to arrange the staff.

Discussions about GaAs designs. **Sergej** proposed segmentation of GaAs with different cell sizes; also, guard ring should be used. **Anton** proposed to put a very thin guard ring but should be enough space for wire bonding. **Anton** will summarize all proposed dimensions for the new GaAs design in a table and spread it out in order to make a decision about the new sensor design.

We agree to have next S&A WG in two weeks in order to see the progress of the MC simulations.