

Simulation

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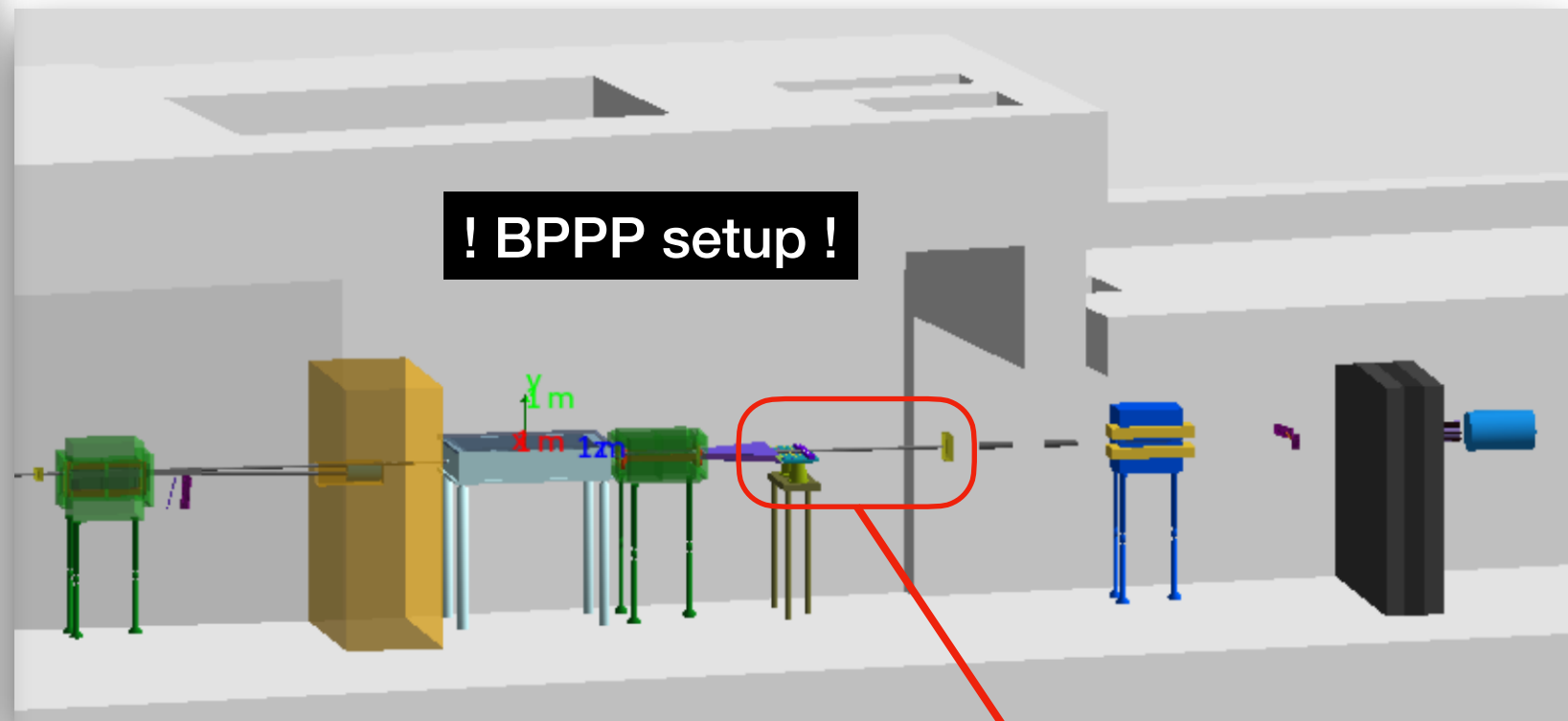
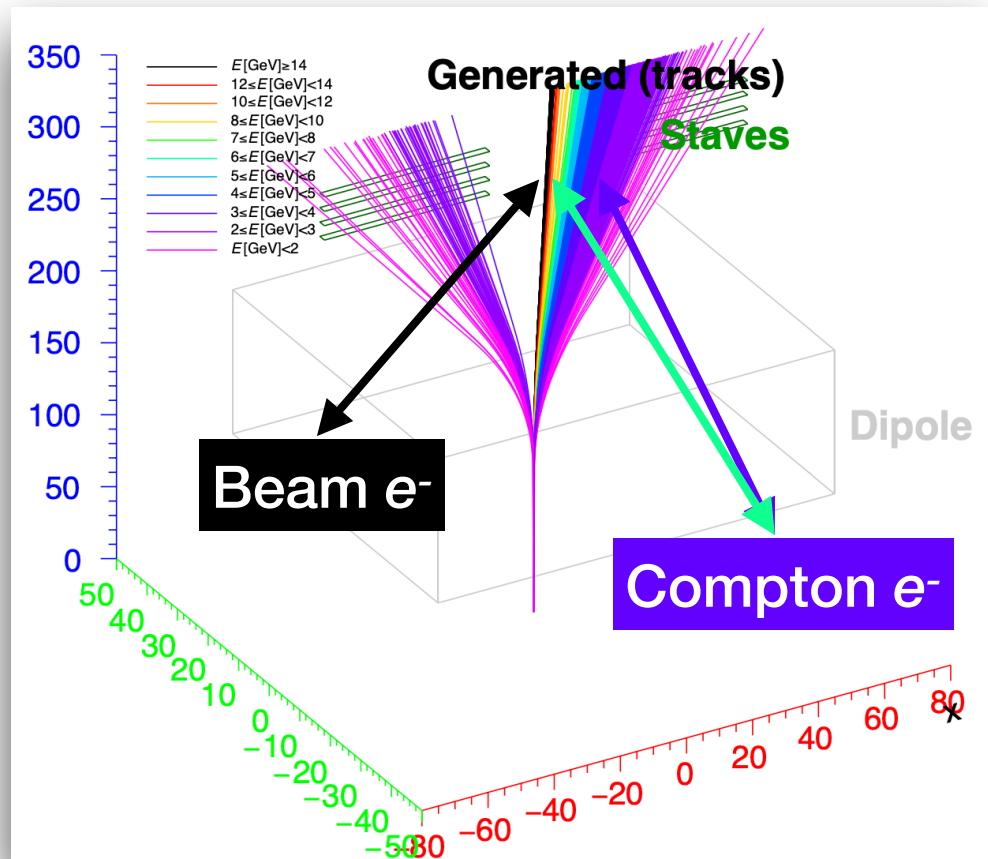
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Reminder

- ◉ Fix fwd spect design (incl. the profiler) by this week and then implement in G4
- ◉ Today: discuss how to dump the electrons in the e+laser setup's IP area
 - ◉ this was neglected up to now (thanks to Louis who brought it up!)
- ◉ This week: launch the 1st iteration of the G4 electron+laser bkg production
 - ◉ this depends on Tony's electron+laser files as an input
 - ◉ just need to remove the upstream system (target, magnet, monitors) and replace the tracker+calo arm on the electron side with the Cherenkov detector
 - ◉ we proceed with or without the beam-dump (ideally with)
- ◉ In 1 week: launch the 2nd iteration of the G4 photon+laser bkg (and sig) production
 - ◉ with all/most of the changes we've been discussing (Sasha has made most of it)
 - ◉ after some preliminary analysis (Sasha's usual diagnostics at minimum)
 - ◉ Matthew and Sasha will coordinate directly about the plots for the simul. chapter
 - ◉ will also add dose plots
- ◉ For the analysis, assume 50x50x50 μm^3 uncertainty from the XFEL alignment system (and not 25 μm cubic) as we discussed last week

Beam+Compton electrons dump



- ◉ Dump has to be after the Cherenkov detector and before the end of the beampipe (Kapton target) affect the IP det. and the Fwd spect.
- ◉ Can be off-axis but still on-pipe (Sasha has shown some designs like that in the past). The exact location and shape depend on:
 - ◉ the B-field, the Compton electrons rate+spread and what survives the Cherenkov materials
 - ◉ Could imply that we need some more shielding around that

