Simulation TF

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Recap

- **Sasha**: with minor changes to the model (e.g. screens) we freeze this version and launch the 2nd bkg campaign (but see a point below about the new TTree setup)
- **Maryna+Sasha**: add another version of the model where there is a beampipe all the way to the last dump as discussed by Maryna last time
- **Tony**: found a bug in the e+laser signal (input for G4!) - spread of beam electrons was too large
- **Tony**: agreed to check the G4 response with 10x more BXs (signal is already done) to see if the bkg occupancy doesn't look to sparse as in the first attempt
  - in parallel, check if we can start with much more macro-particles (not 10^9 but close to that…)
- **Kyle**: LANEX profiler will melt within <1 h and it isn't clear if it won't quench until this happens
  - think about cooling but not sure if this solves the problem which is at the core of the beam
  - could be that with the version where the beampipe goes all the way to the last dump we can solve this with another technology (Maryna)

- Discussions from the analysis side:
  - convoluting signals with the detectors' responses (see talks from this morning)
  - producing the rates vs $\{\xi, \chi\}$ as well as the Compton edges
    - in the individual systems
    - combine later as much as possible (e.g. screen+Cherenkov)
  - Sasha is changing the G4 output TTree structure