# Update on LUXE GEANT4 Simulation

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# Completed MC

| | | | | |
|---|---|---|---|---|
| w0_8000nm_provisional | 941 | 925 | /nfs/dust/ilc/user/oborysov/hics_list/list_root_hics_165gev_w0_8000nm_provisional.txt | |
| w0_3000nm_provisional | 996 | 982 | /nfs/dust/ilc/user/oborysov/hics_list/list_root_hics_165gev_w0_3000nm_provisional.txt | |
| w0_5000nm_provisional | 987 | 983 | /nfs/dust/ilc/user/oborysov/hics_list/list_root_hics_165gev_w0_5000nm_provisional.txt | |
| w0_5000nm | 4774 | 4664 | /nfs/dust/ilc/user/oborysov/hics_list/list_root_hics_165gev_w0_5000nm_6cee466a.txt | geometry correspond to commit 6cee466a, but thick Cherenkov outer wall |
| w0_8000nm | 9479 | 9320 | /nfs/dust/ilc/user/oborysov/hics_list/list_root_hics_165gev_w0_8000nm_6cee466a.txt | geometry correspond to commit 6cee466a, but thick Cherenkov outer wall |
| w0_50000nm | 4764 | | | geometry correspond to commit 6cee466a, 2T field |

**DESY cluster jobs issues:**
- submitted jobs go to HOLD state almost immediately. Can be released, but again and again.
- ERROR: Failed to create proc. Number of submitted jobs would exceed MAX_JOBS_PER_OWNER.

- reinstalling of cluster testfacility and misconfigured some production nodes;
- Limit was not intended for LUXE users;
- Both supposed to be fixed.

**Fast background simulation:**

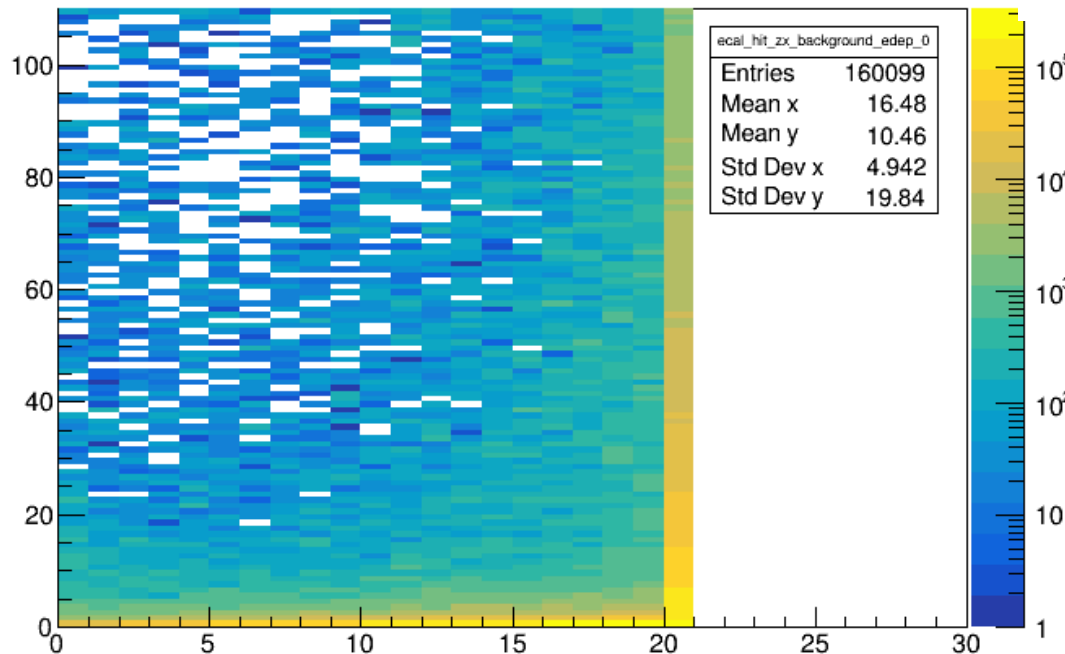Stop and kill particle when it come to volumes:
- Electron beam dump (BeamDumpAssembly);
- Photon dump (GammaBeamDumpAssembly);
- Shielding (upstream IP);
- ComptShielding (between gamma spectrometer and photon dump).
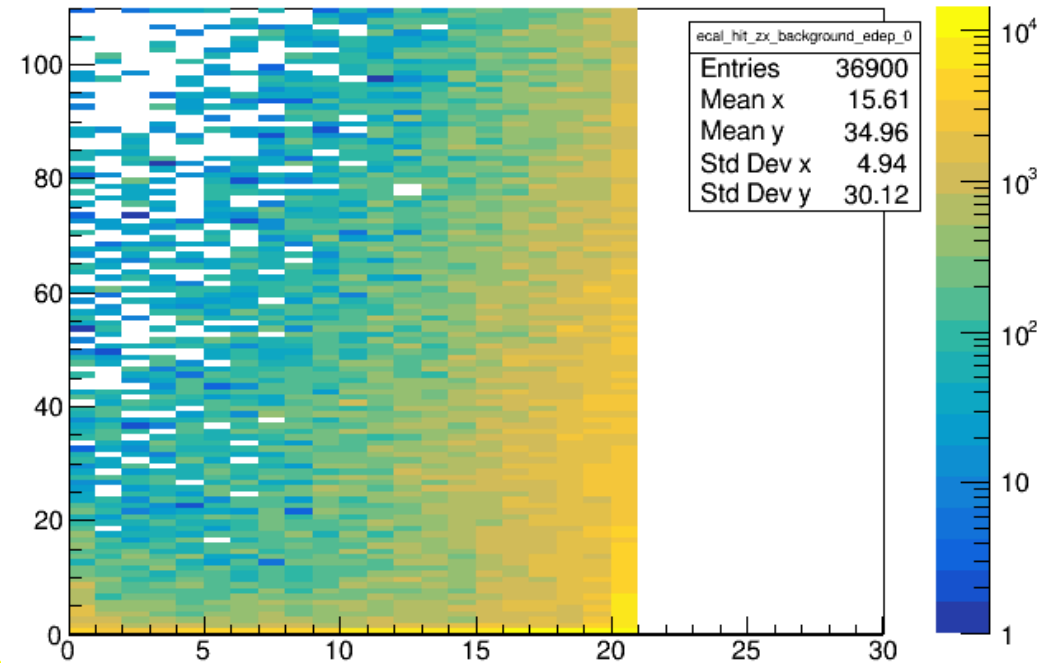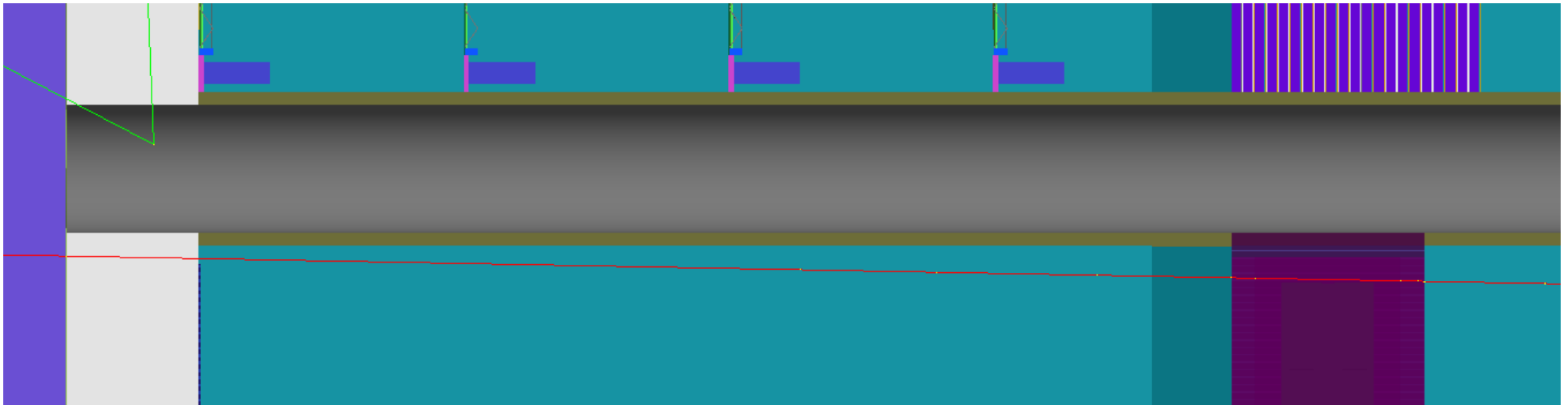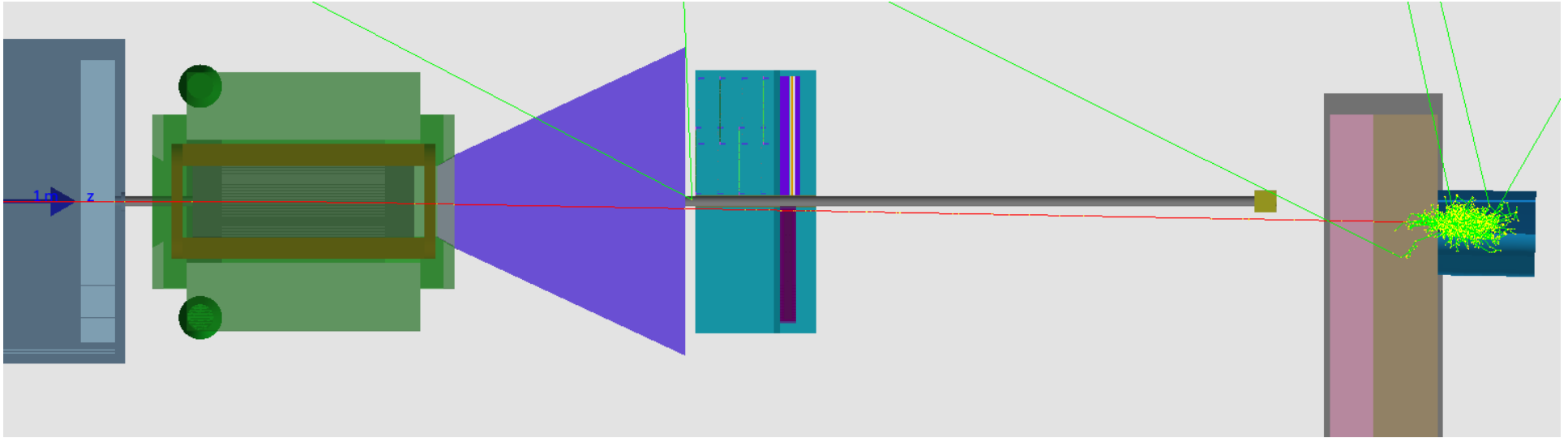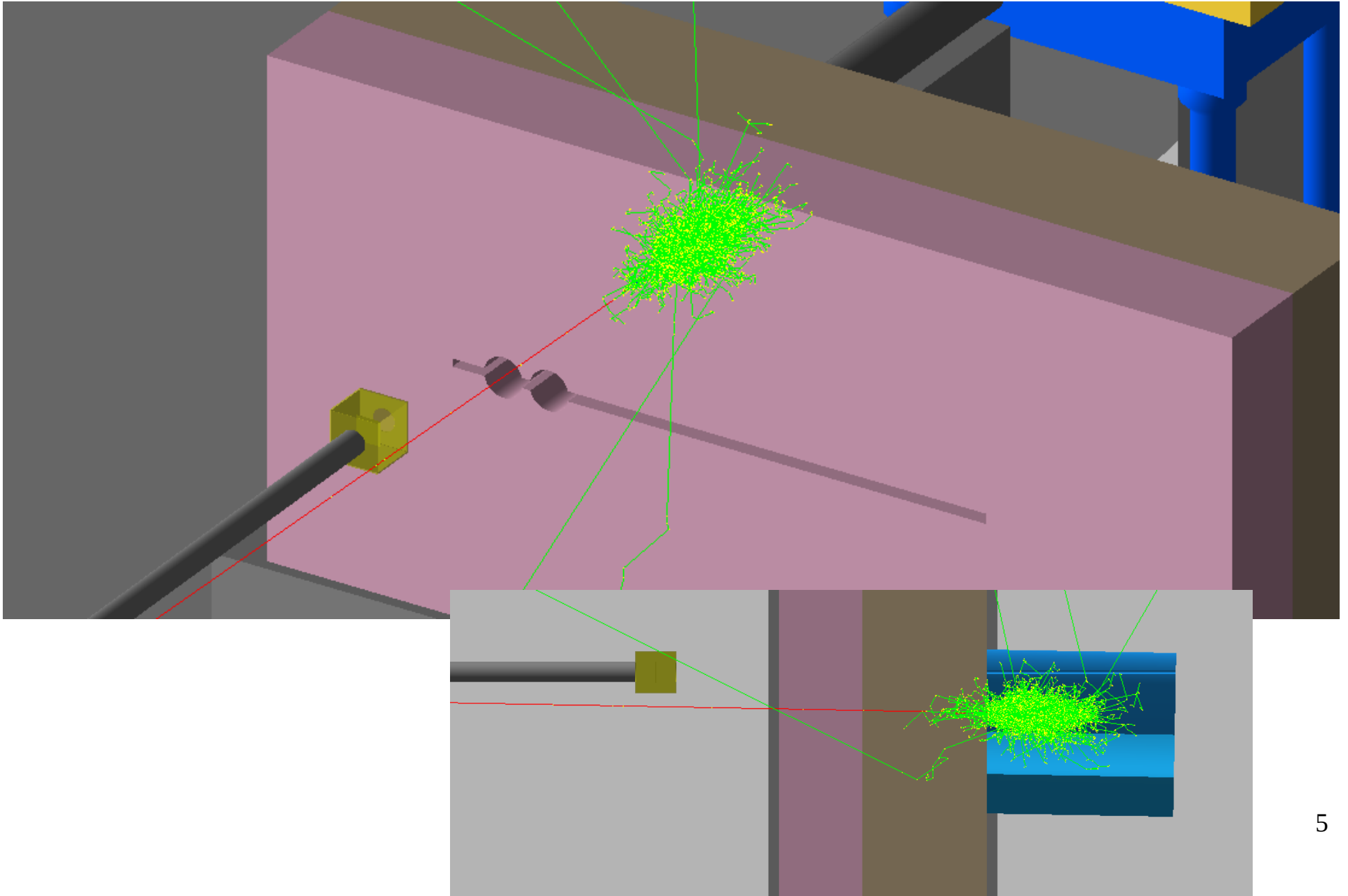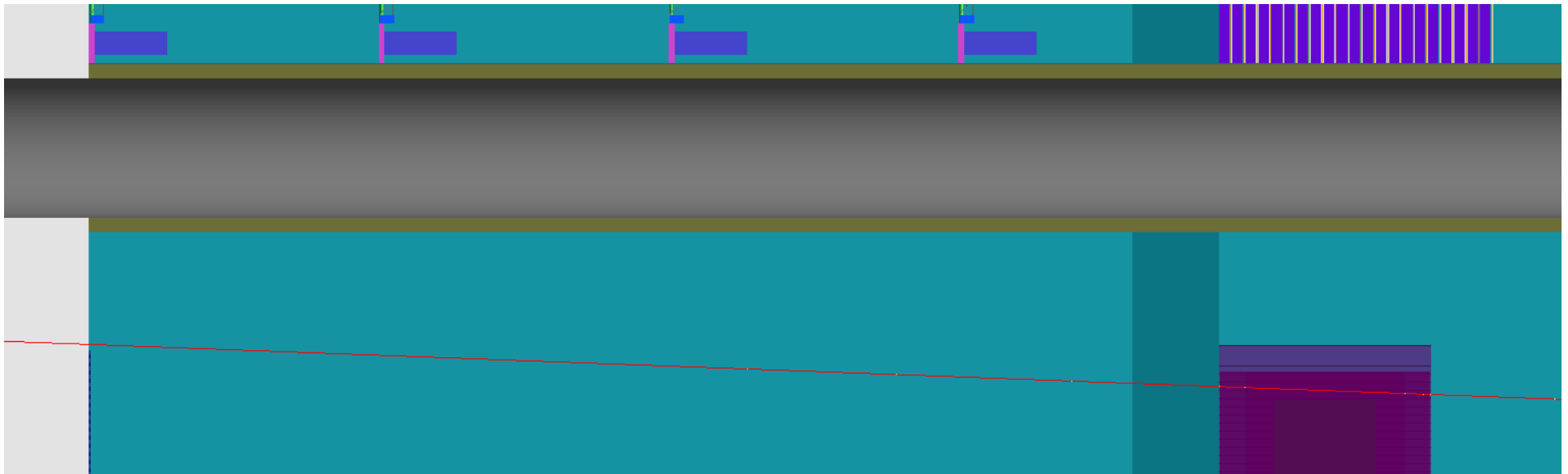
# Background in ECAL

w0_8000nm

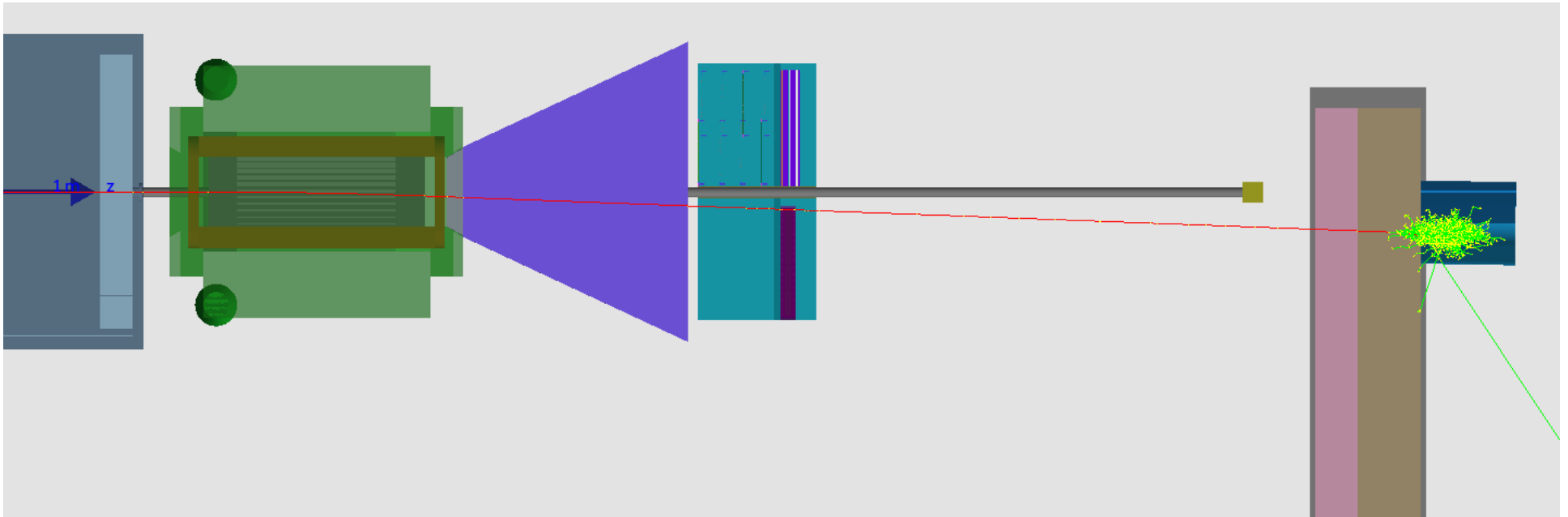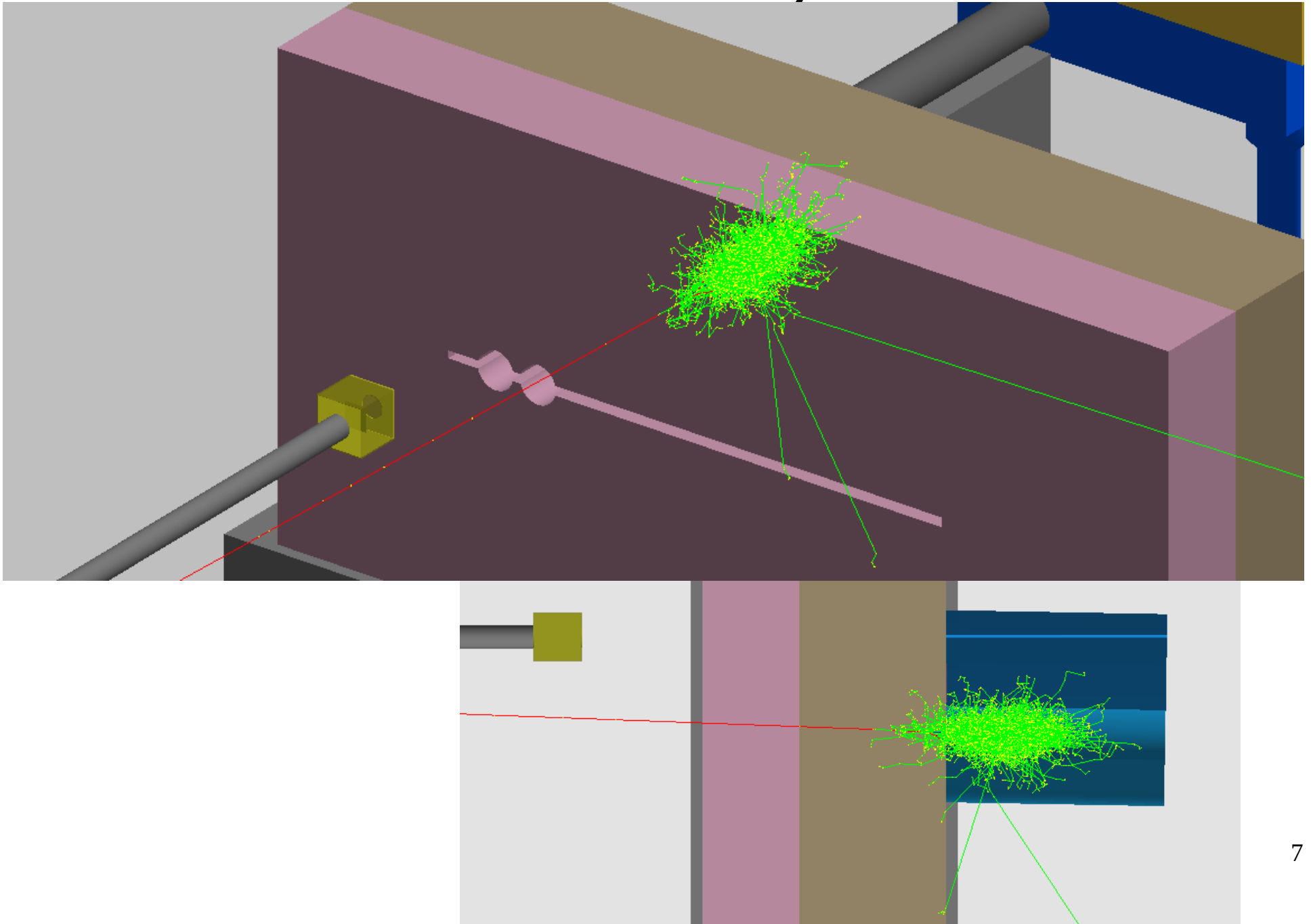Copper beam dump

Lead beam dump
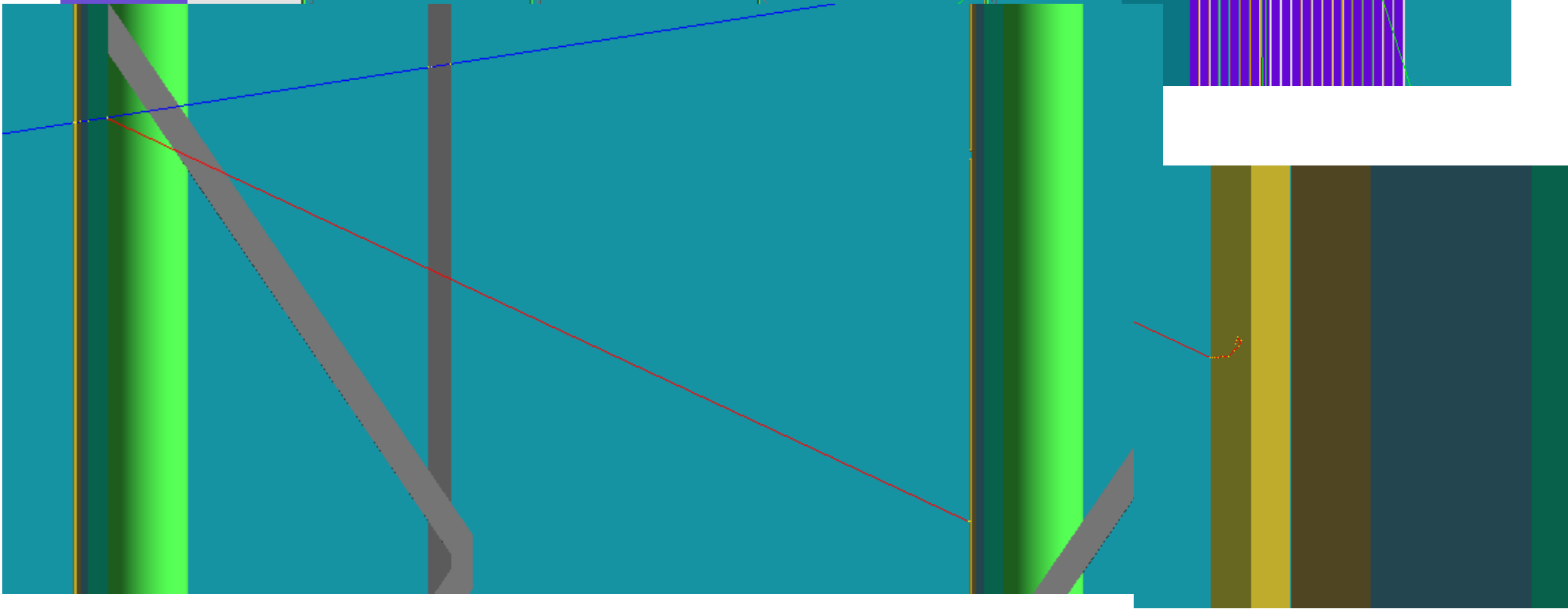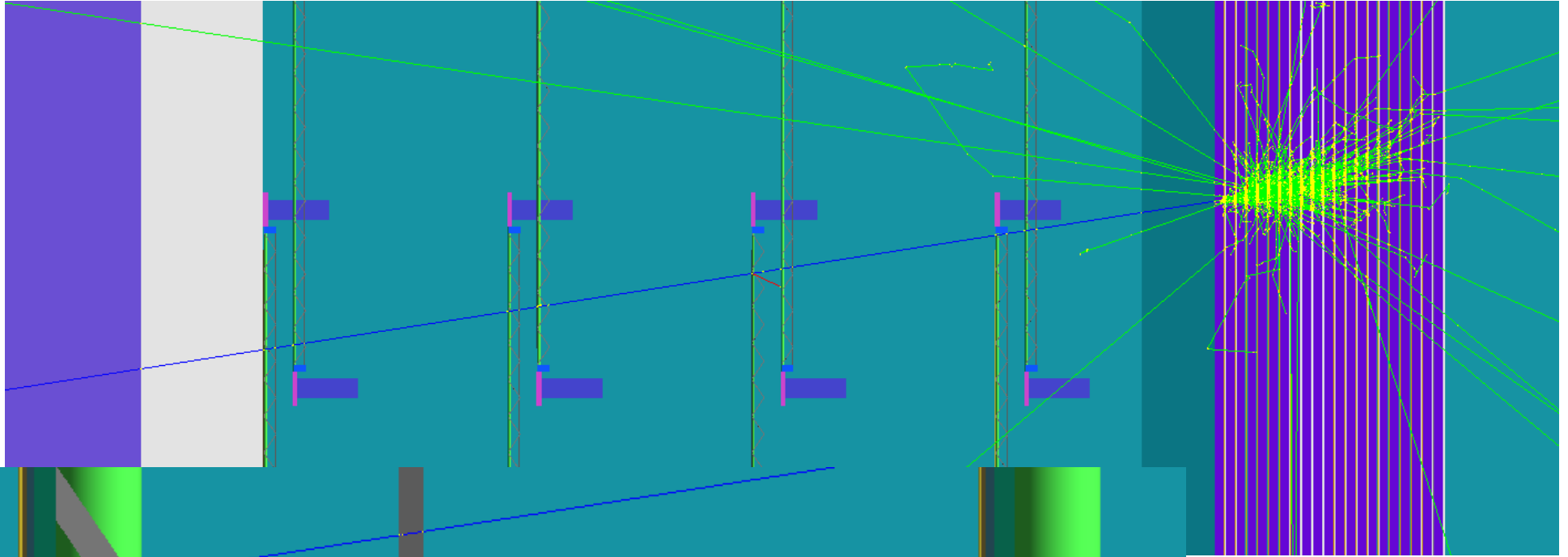


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# 16.5 GeV, 1T

# 16.5 GeV, 1T

# 16.5 GeV, 2T

# 16.5 GeV, 2T

# Positron in tracking layers with generated secondary

# Positron crossing tracker stave