

Background simulation for GSI2021

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Introduction

- In order to perform a study of the impact of background production in GSI2021, a specific new simulation has been required where the C target is removed.
- In order to accomplish such request, we have chosen to maintain the same exact geometry (and region numbering) while replacing with air the graphite of the target.
- We have updated the **GSI2021_MC** MC campaign in newgeom branch by adding 2 new run numbers: **202** and **402** for the 200 MeV/u and 400 MeV/u energies respectively. They differ from run 200 and 400 just in the **TAGdetector.geo** file, since the target composition has been changed.
- The required statistics is $\sim 25\%$ of the C target production

New production

16O_Air_200_shoereg.root 1.3 10⁶ events -exp GSI2021_MC -run **202**

16O_Air_400_shoereg.root 1.3 10⁶ events -exp GSI2021_MC -run **402**

RUN NUMBER



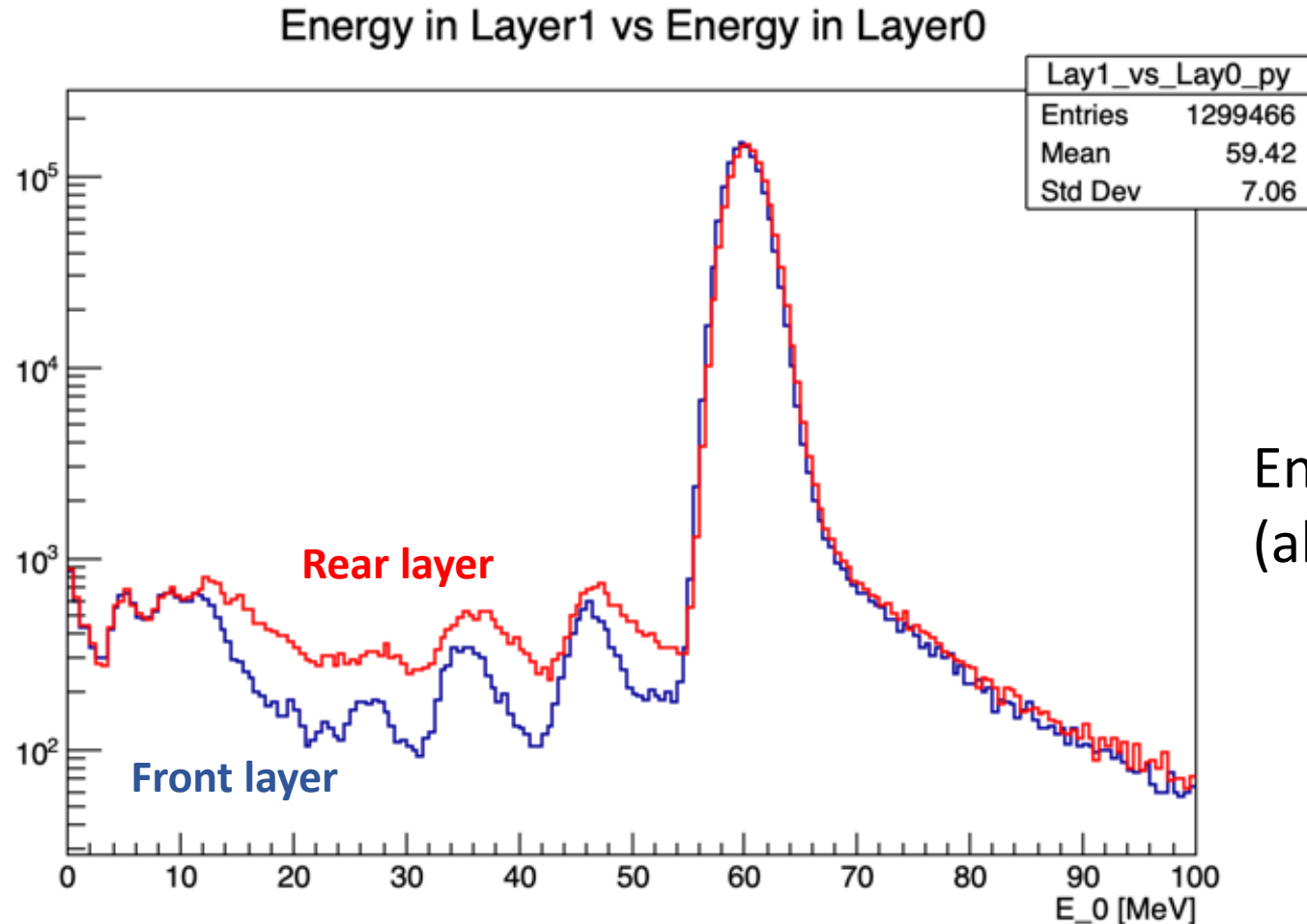
Now available in Tier1:

/storage/gpfs_data/foot/shared/SimulatedData/GSI2021_MC

Twiki page updated:

http://arpg-serv.ing2.uniroma1.it/twiki/bin/view/Main/FOOTAvailableSimulation#GSI2021_MC_studies

Example from MC truth analysis:



Energy deposition in TW @400 MeV/u
(all events, all bars summed together)