nHCal DRC 5-27-25

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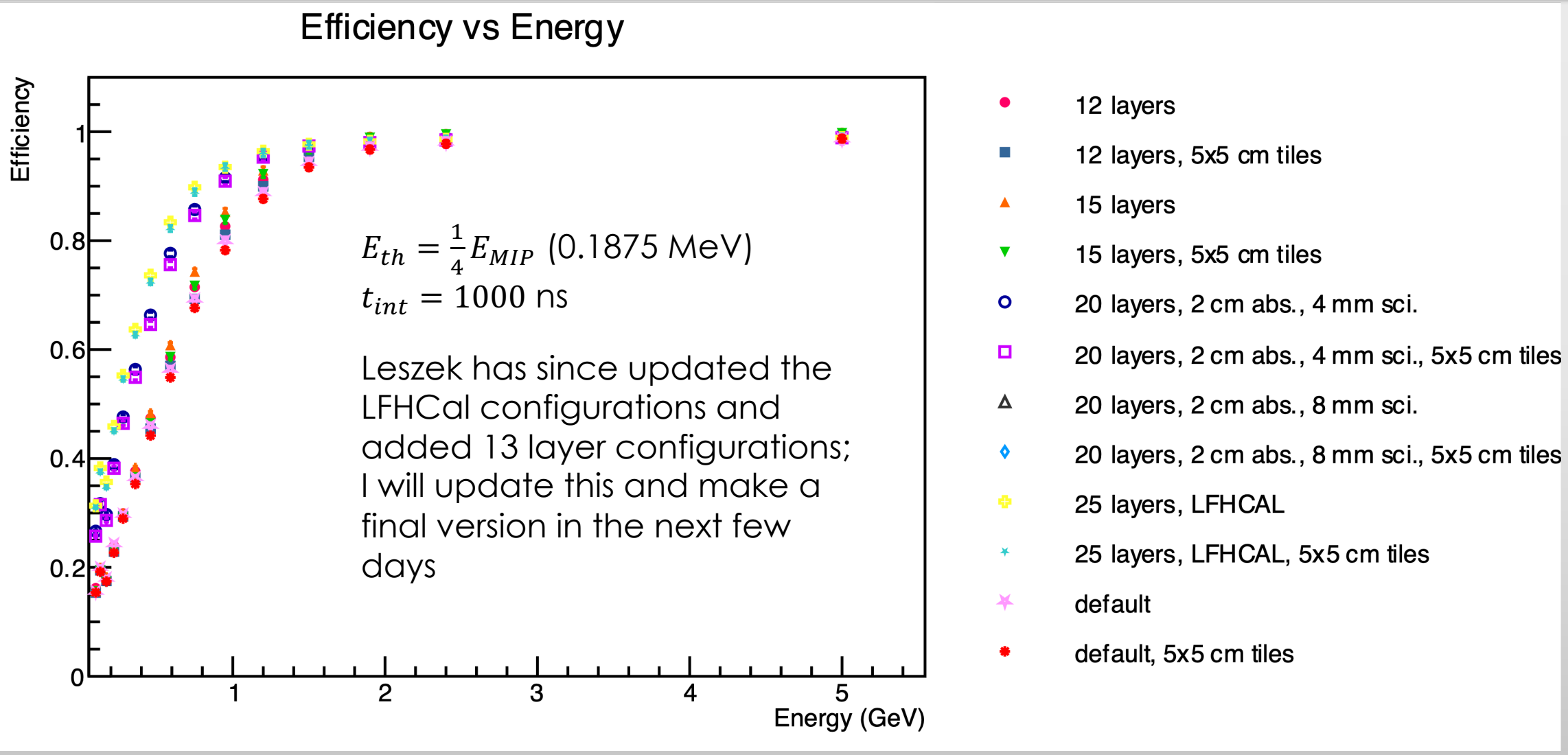
Procedure for calculating efficiency

For a particular energy and choice of E_{th}, t_{int}, and configuration:

1. Check if MC particle is within nHCal acceptance.
2. If yes, increment the total (denominator for efficiency) by 1, and loop through the hit contributions.
3. Add up the energies from each hit contribution.
4. If the total from the contributions reach E_{th} in a time t_{int} elapsed from the first hit contribution, increment the number passed (numerator for efficiency) by 1.
5. Repeat for each energy, E_{th}, t_{int}, and configuration.

Current result



Same plot in logx

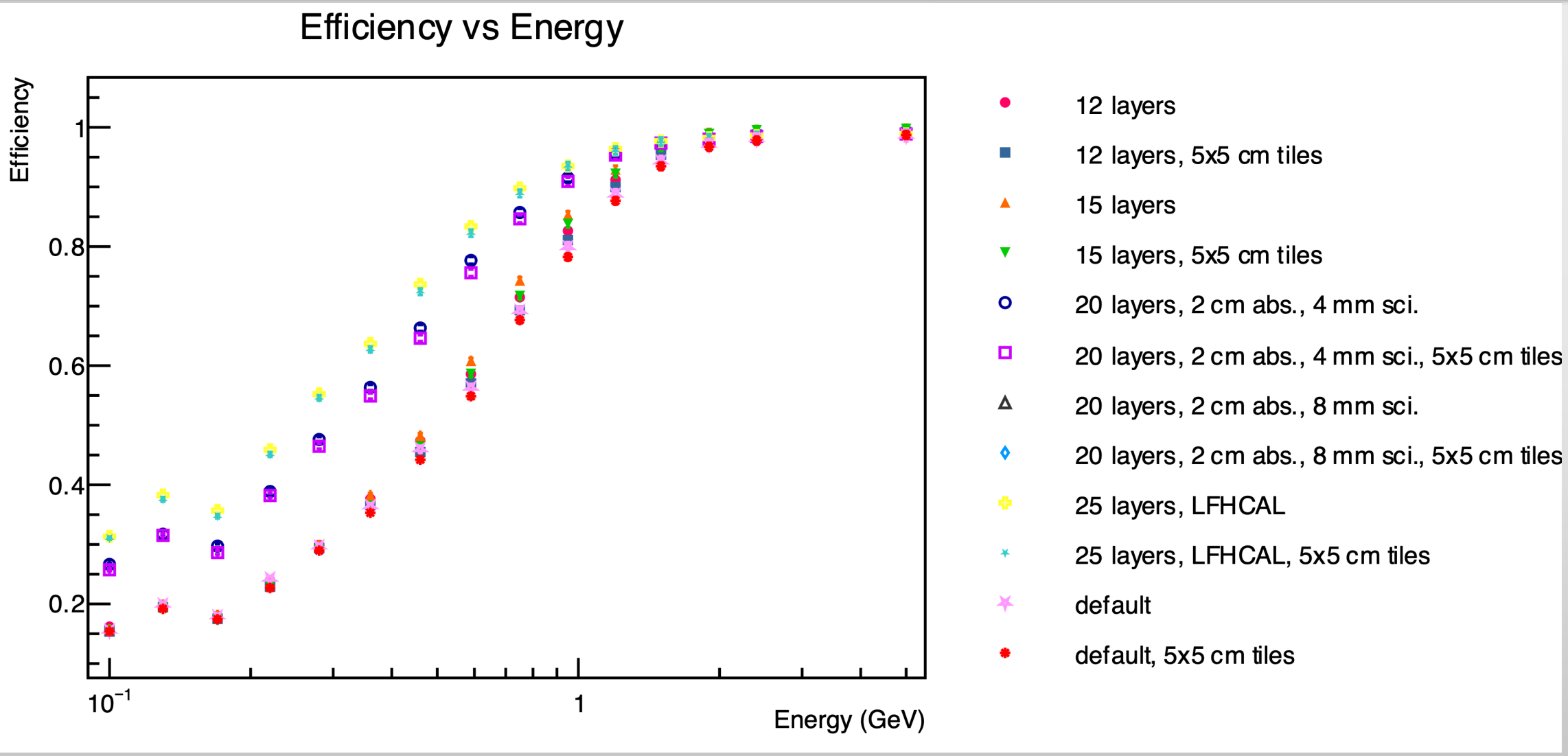


Table view

tiles 5x5 [cm]

	scintilator thikness	4				6	8
layers	absorber thikness	4	3	2	1.52	2	2
10		x					
12		x					
13			x				
15		x					
20				x		x	x
28					x		

Everything is in cm

tiles 10x10 [cm]

	scintilator thikness	4				6	8
layers	absorber thikness	4	3	2	1.52	2	2
10		x					
12		x					
13			x				
15		x					
20				x		x	x
28					x		

Orange boxes are missing/yet to be updated.

Will have them hopefully by Friday, certainly before Monday