

GaAs DATA/MC COMPARISON

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SIMULATION STATUS

- Only two main issues are left to be resolved:
 1. Great Data/MC comparison was achieved with 1 keV ADC-related energy smearing, while 1.2 keV is expected.
 2. Angular resolution for low-energy photons in MC is worse than in Data.

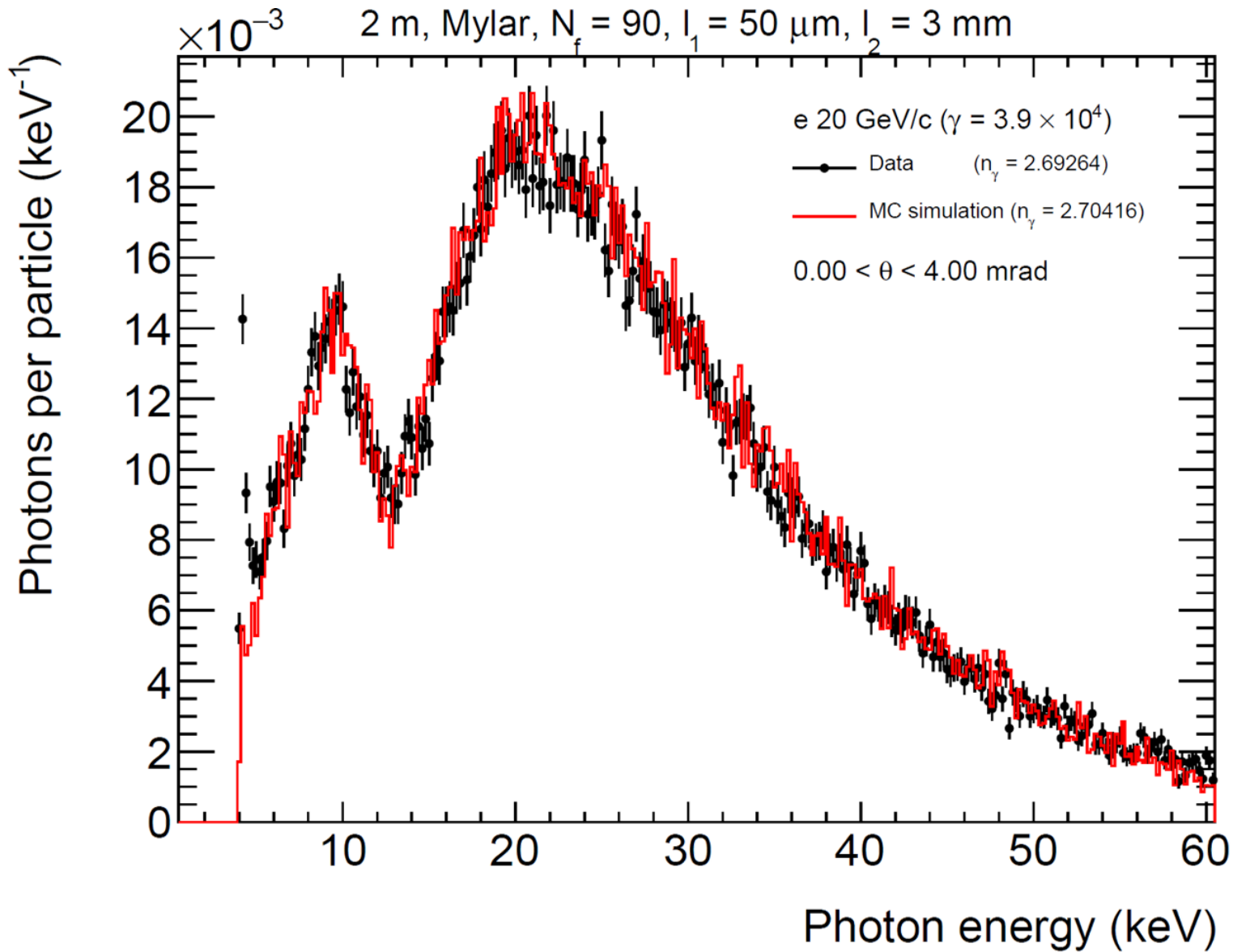
- MC parameters were preset to their expected values:

σ_{noise}	a_{diff}	l_{GaAs}	l_{Ni}	$l_{dead\ layer}$	E_{min}
0.426 keV	0.014	500 μm	1 μm	3 μm	4.2 keV

- During the simulation, we take into account only electrical noise smearing σ_{noise} . ADC-related smearing σ_{ADC} is applied at the end, right before filling energy to the analysis histograms.

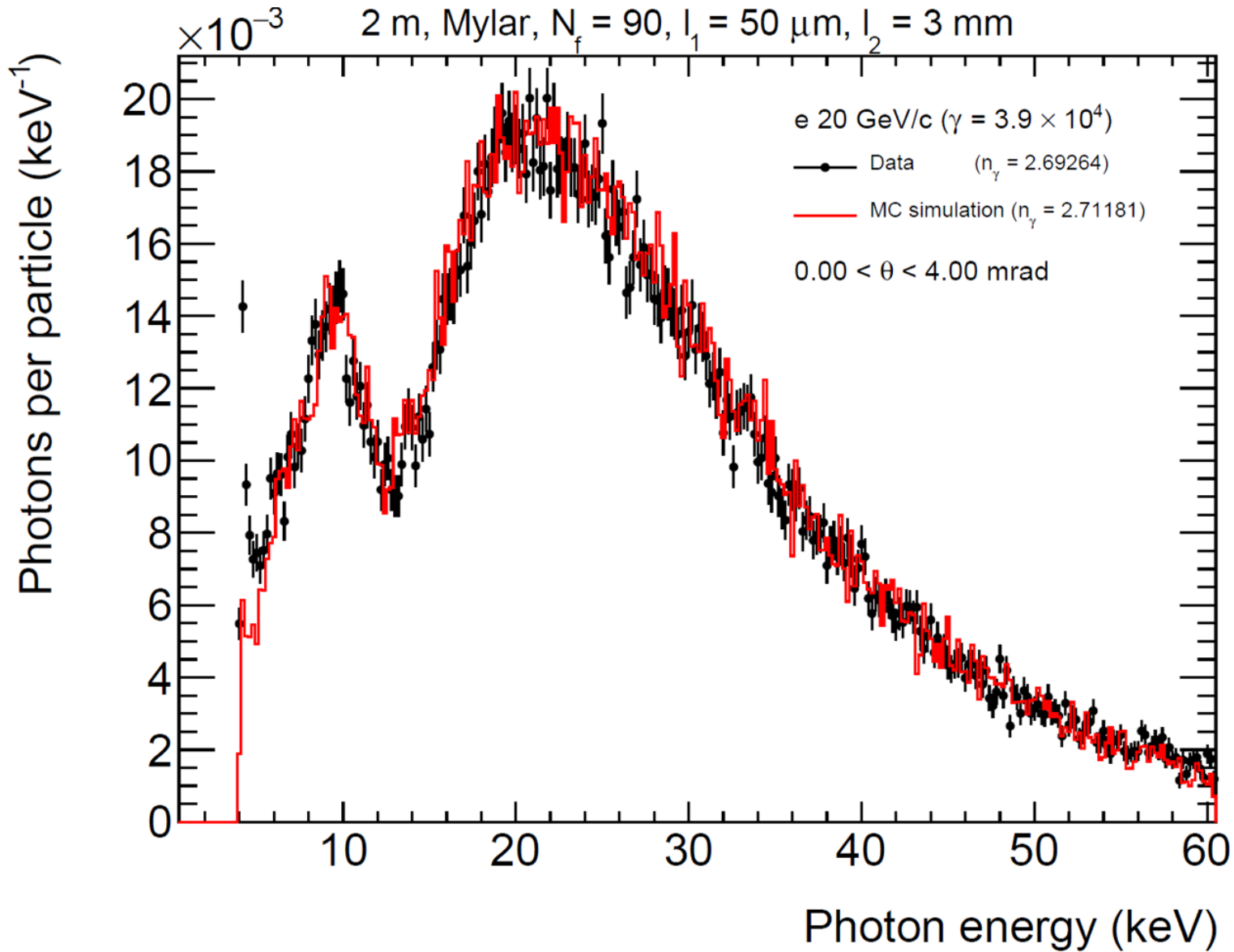
$$\sigma_{ADC} = 1 \text{ KEV}$$

2 m, Mylar, $N_f = 90$, $l_1 = 50 \mu\text{m}$, $l_2 = 3 \text{ mm}$



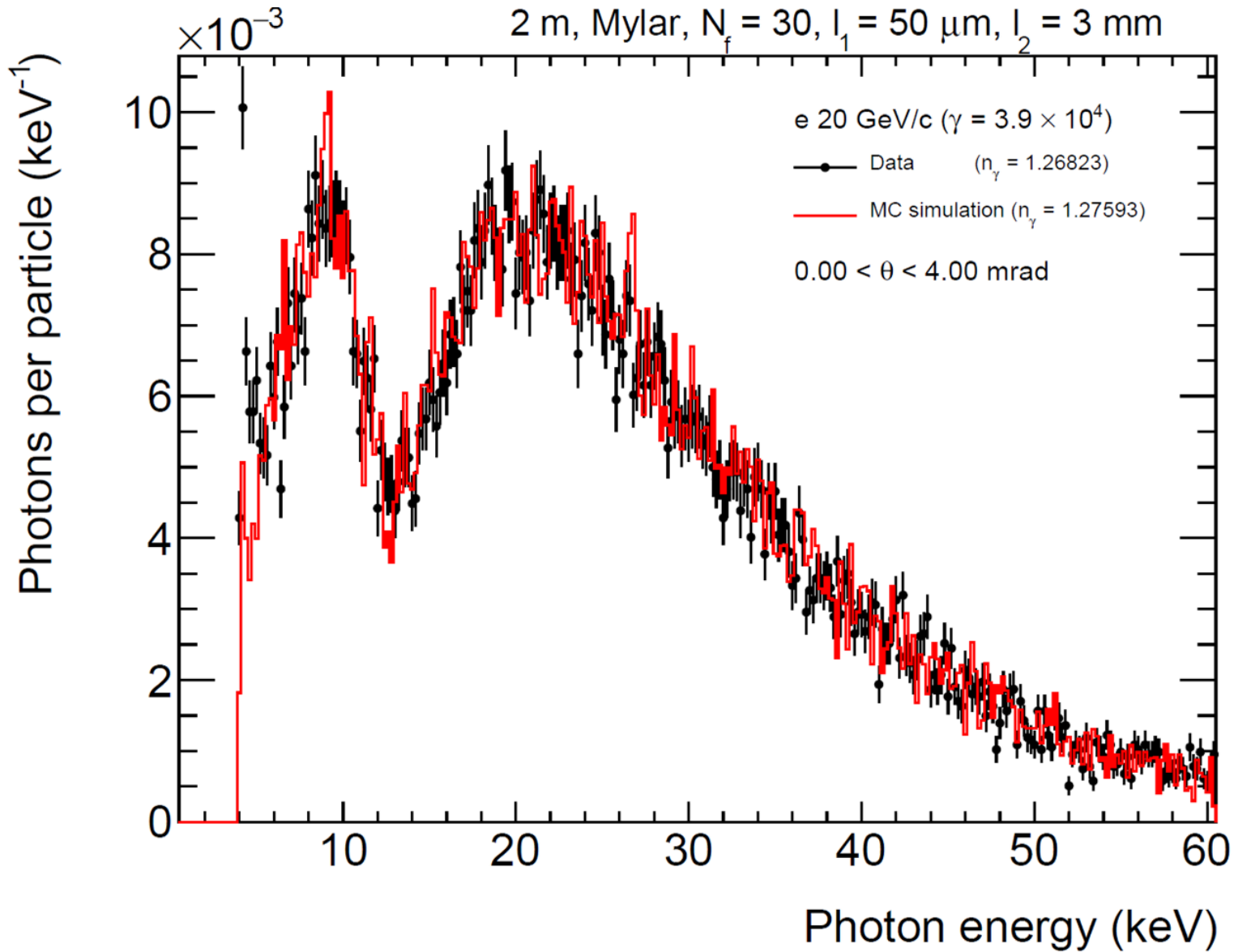
$$\sigma_{ADC} = 1.2 \text{ KEV}$$

2 m, Mylar, $N_f = 90$, $l_1 = 50 \mu\text{m}$, $l_2 = 3 \text{ mm}$



$$\sigma_{ADC} = 1 \text{ KEV}$$

2 m, Mylar, $N_f = 30$, $l_1 = 50 \mu\text{m}$, $l_2 = 3 \text{ mm}$



$$\sigma_{ADC} = 1.2 \text{ KEV}$$

2 m, Mylar, $N_f = 30$, $l_1 = 50 \mu\text{m}$, $l_2 = 3 \text{ mm}$

