FCAL energy calibration QC

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Thomas Jefferson National Accelerator Facility

for the GlueX Collaboration

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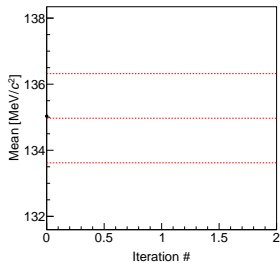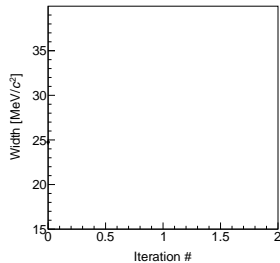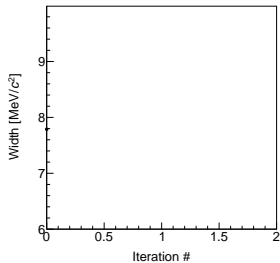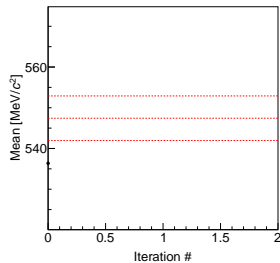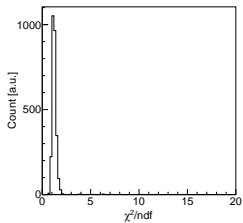2022-08-period-23-iteration-1-method-2

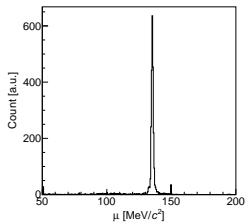# Table of contents

Overall QC vs iteration

Overall QC, summary distributions

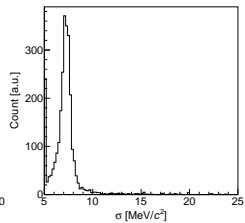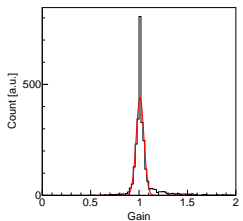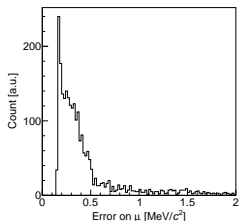- χ^2 distribution

- Fitted peak distribution
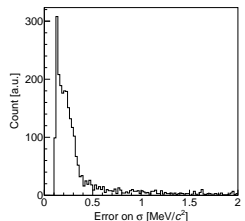
- Fitted width distribution

- Gain distribution
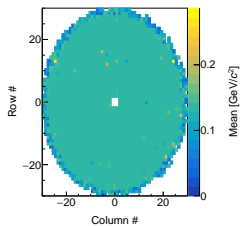
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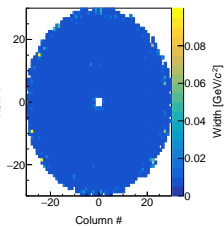
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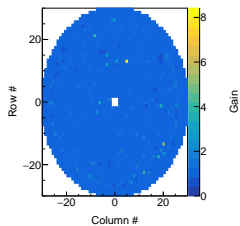
Overall QC, summary maps

- Fitted peak map
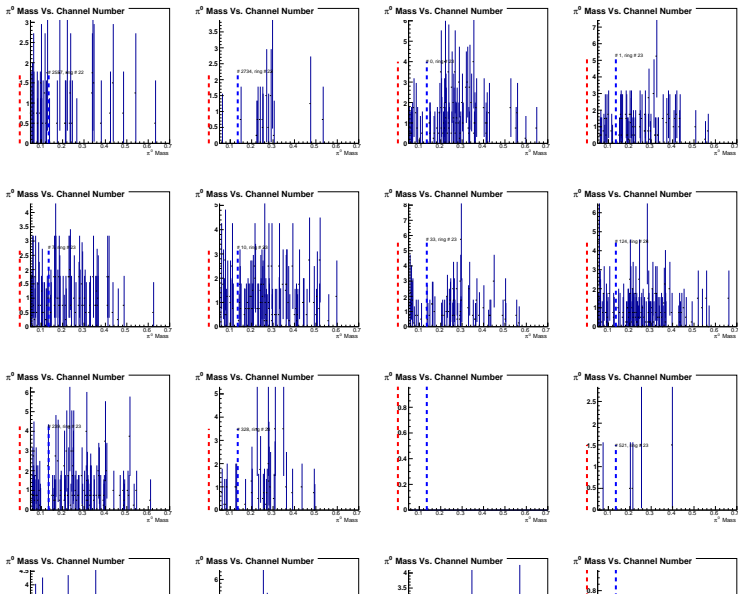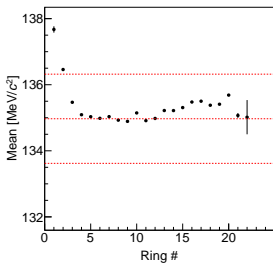- Fitted width map
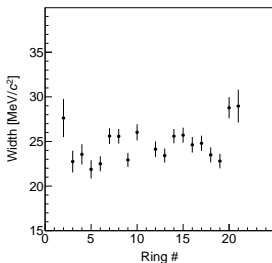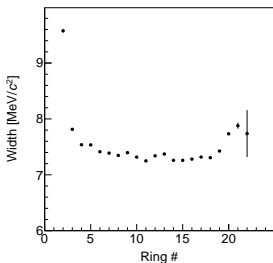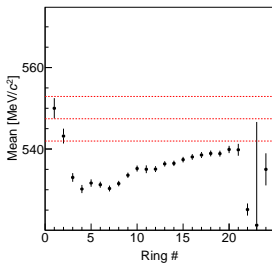- Gain map

Overall QC, bad channels

QC per rings

If radius divided by 5 cm, there is 24 rings
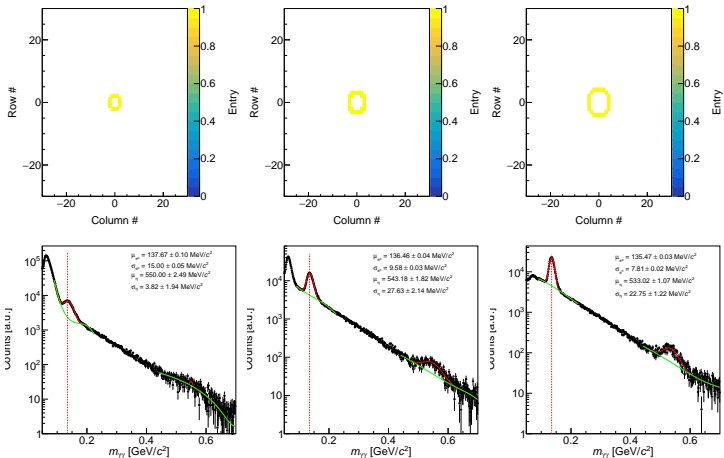
- π^0

- η

QC per rings

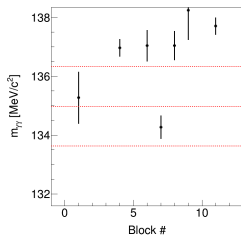If radius divided by 5 cm, there is 24 rings

● Ring 1 ● Ring 2 ● Ring 3

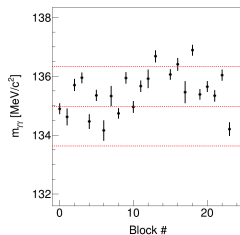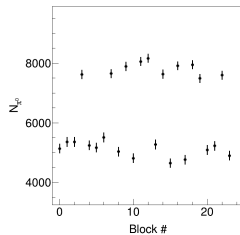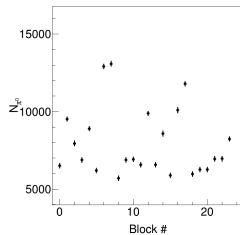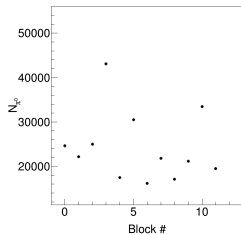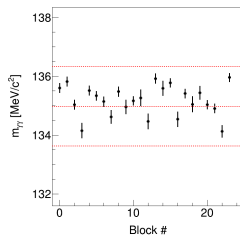# QC per rings
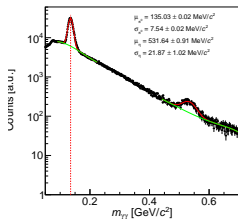
If radius divided by 5 cm, there is 24 rings

● Ring 1   ● Ring 2   ● Ring 3

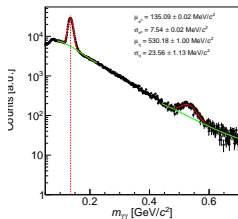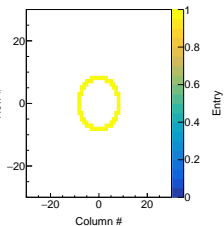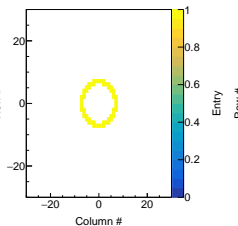# QC per rings

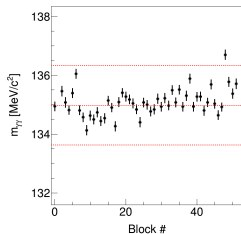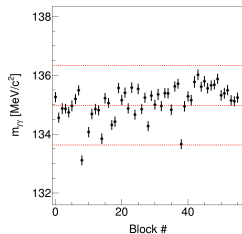If radius divided by 5 cm, there is 24 rings

- Ring 4
- Ring 5
- Ring 6

QC per rings

If radius divided by 5 cm, there is 24 rings

- Ring 4
- Ring 5
- Ring 6

QC per rings

If radius divided by 5 cm, there is 24 rings
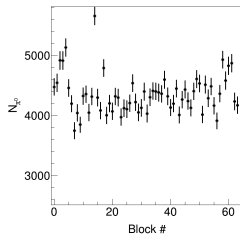
● Ring 7

● Ring 8

● Ring 9

QC per rings

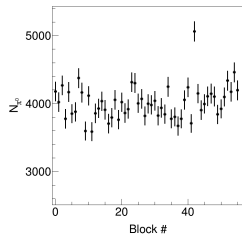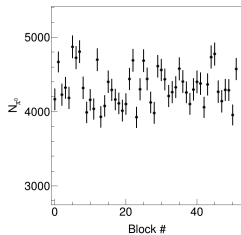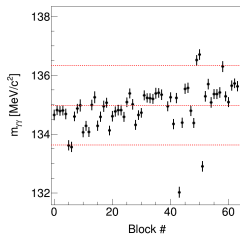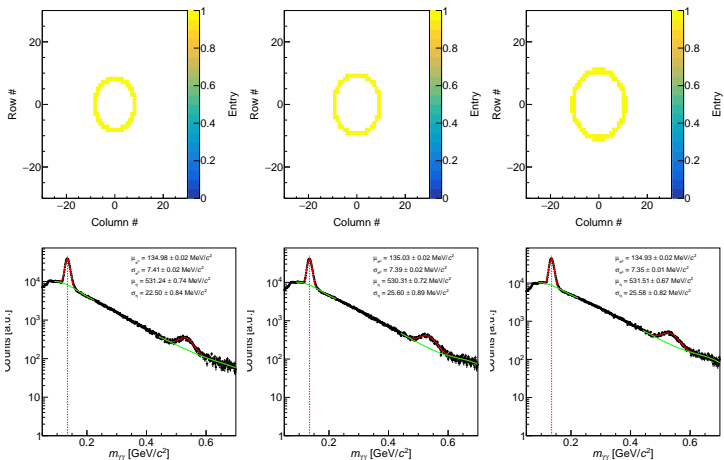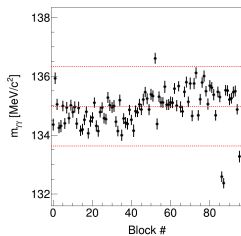If radius divided by 5 cm, there is 24 rings
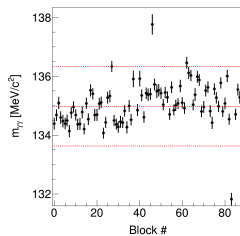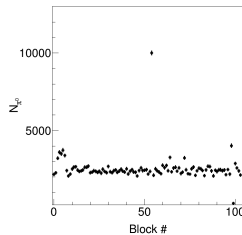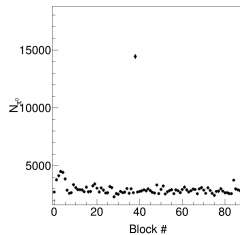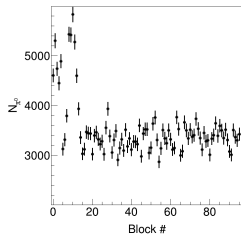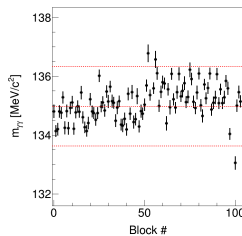
● Ring 7   ● Ring 8   ● Ring 9

QC per rings

If radius divided by 5 cm, there is 24 rings
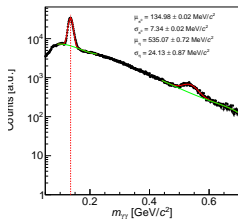
- Ring 11
- Ring 12
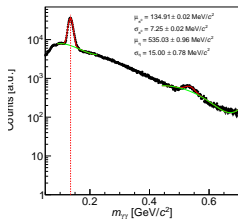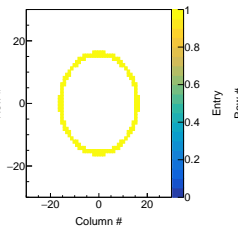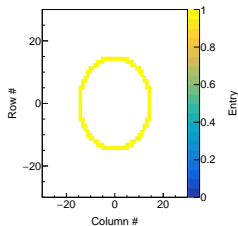- Ring 13

QC per rings

If radius divided by 5 cm, there is 24 rings

● Ring 11   ● Ring 12   ● Ring 13

QC per rings

If radius divided by 5 cm, there is 24 rings

- Ring 14
- Ring 15
- Ring 16

QC per rings

If radius divided by 5 cm, there is 24 rings

● Ring 14   ● Ring 15   ● Ring 16

QC per rings

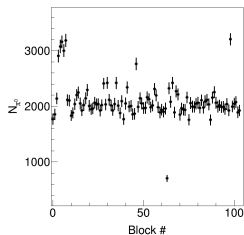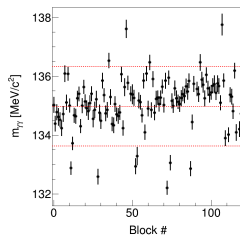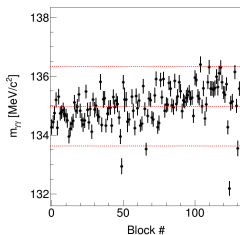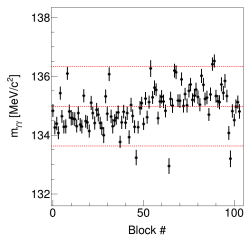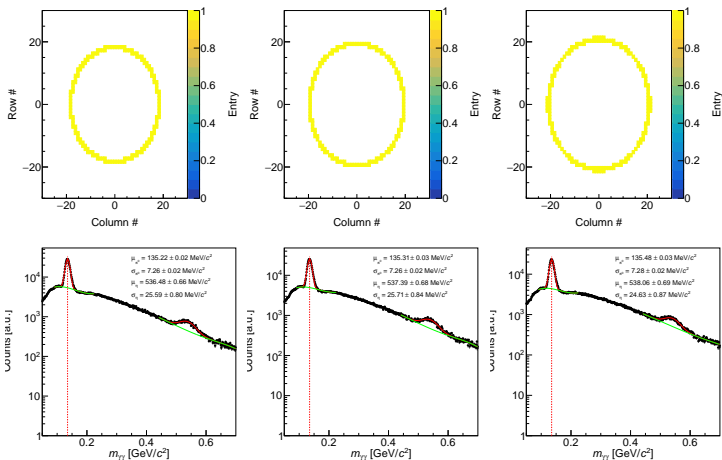If radius divided by 5 cm, there is 24 rings
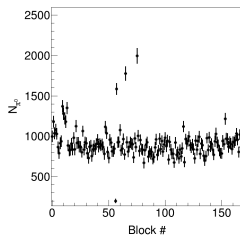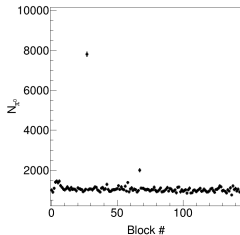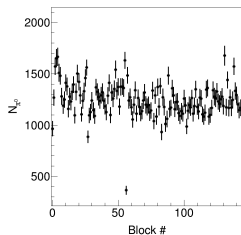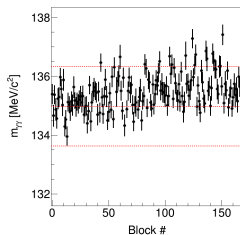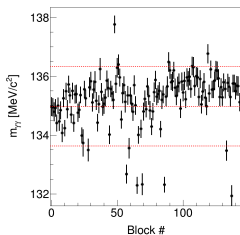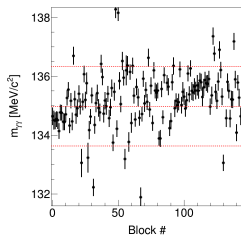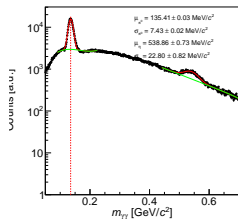
- Ring 17
- Ring 18
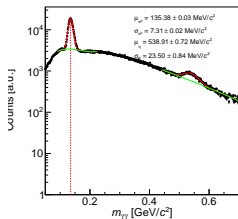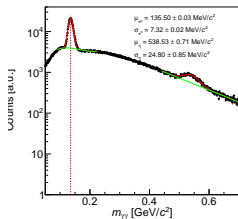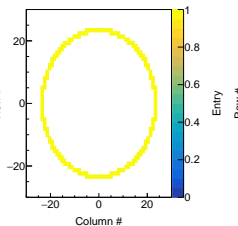- Ring 19

QC per rings

If radius divided by 5 cm, there is 24 rings

- Ring 17
- Ring 18
- Ring 19

QC per rings

If radius divided by 5 cm, there is 24 rings

- Ring 20

- Ring 21

- Ring 22

QC per rings

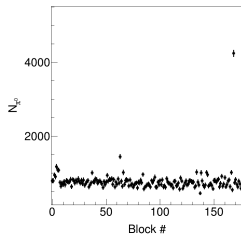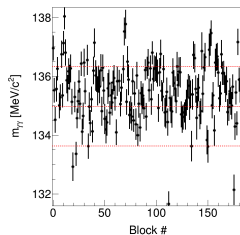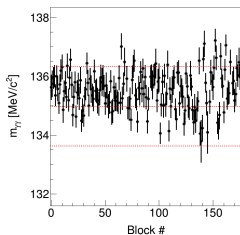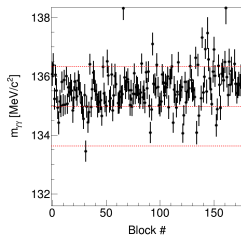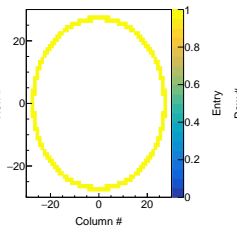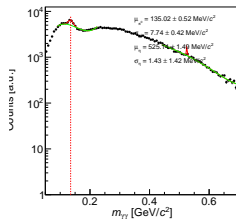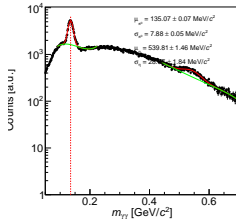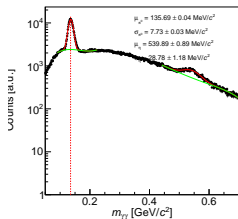If radius divided by 5 cm, there is 24 rings

- Ring 20
- Ring 21
- Ring 22

QC per rings

If radius divided by 5 cm, there is 24 rings

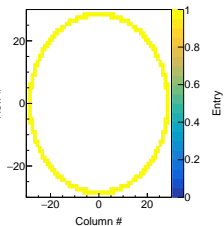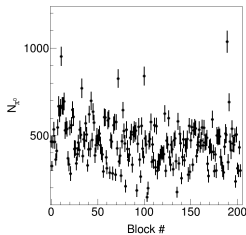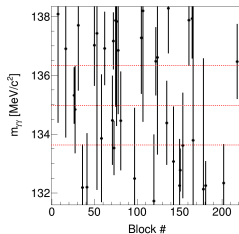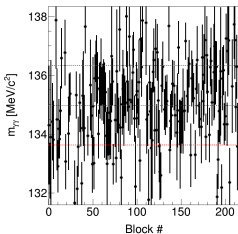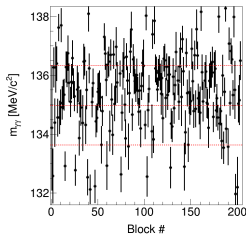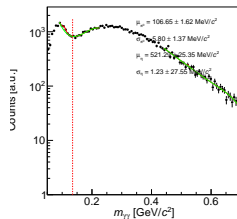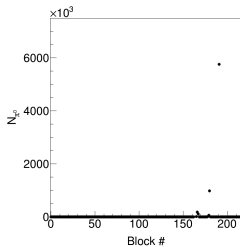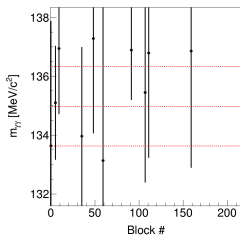● Ring 23

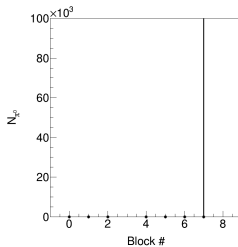# QC per rings
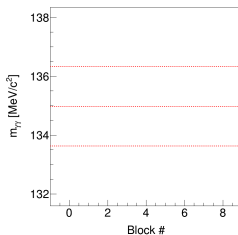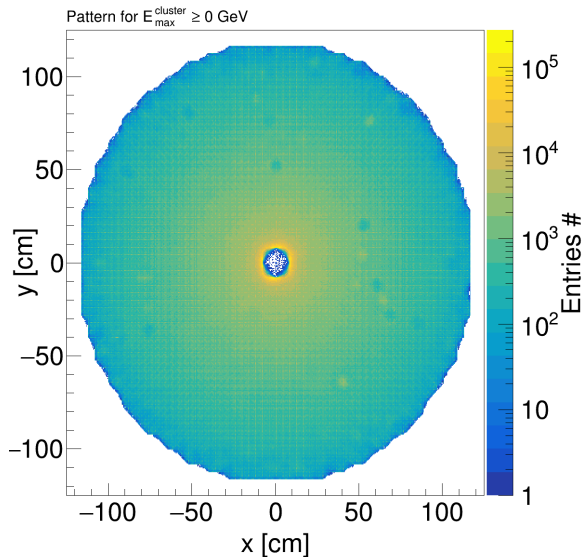
If radius divided by 5 cm, there is 24 rings

- Ring 23

- Ring 24
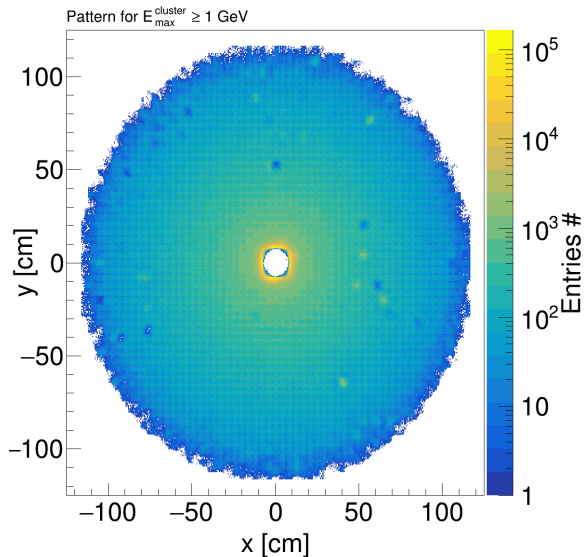
FCAL pattern

FCAL pattern

Pattern for $E_{max}^{cluster} \geq 1$ GeV

FCAL pattern

Pattern for $E_{max}^{cluster} \geq 2$ GeV

FCAL pattern

Pattern for $E_{max}^{cluster} \geq 3$ GeV

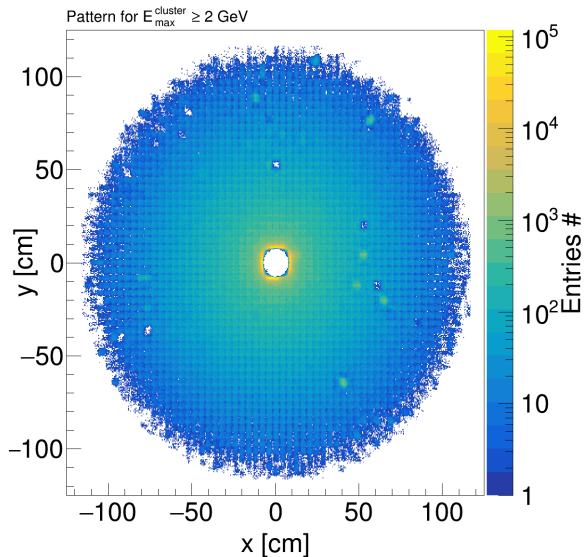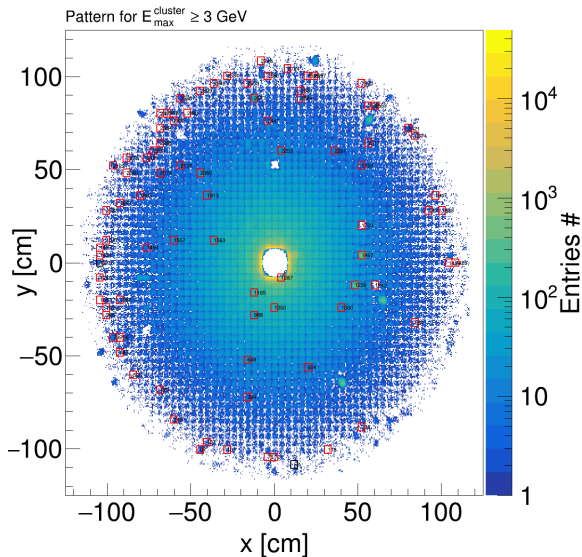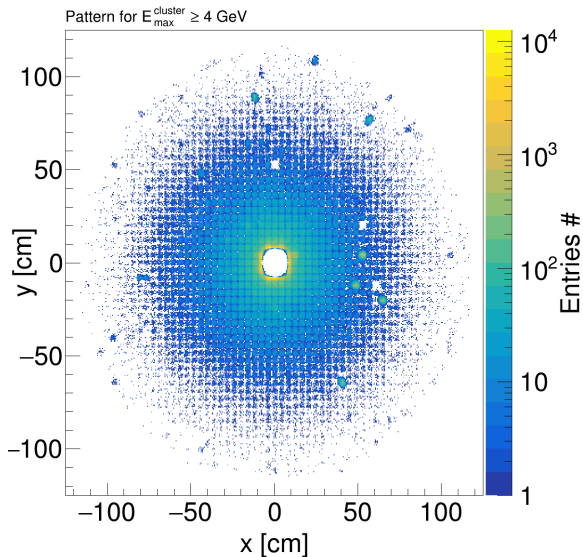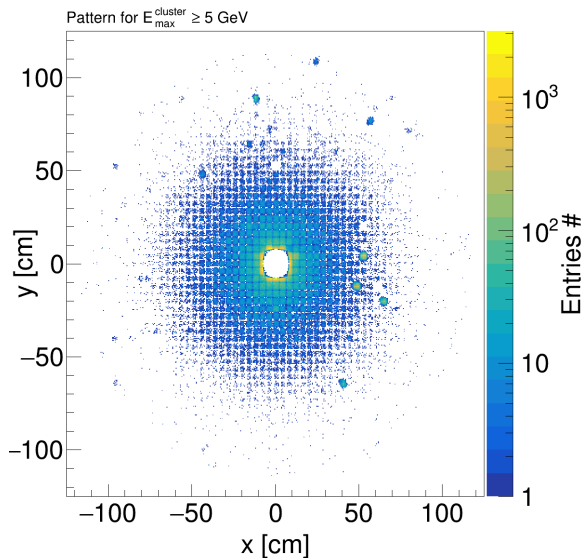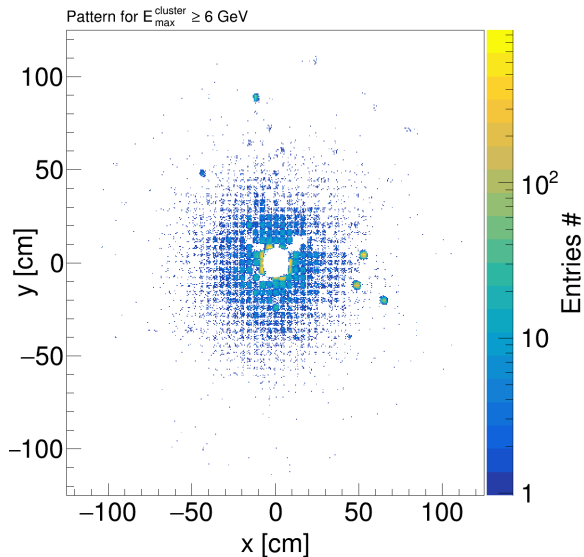# FCAL pattern

FCAL pattern

FCAL pattern

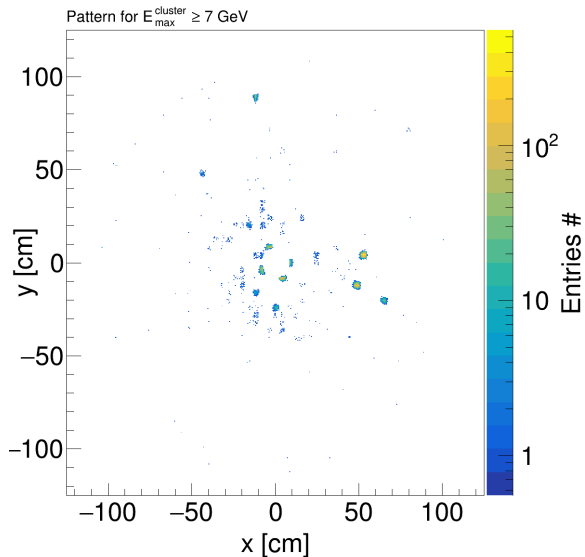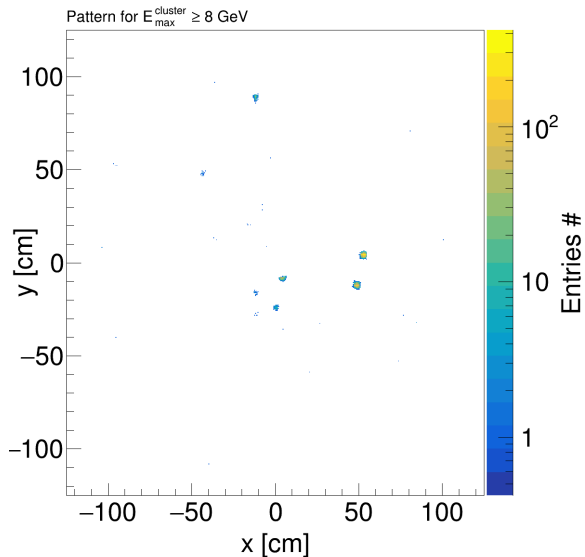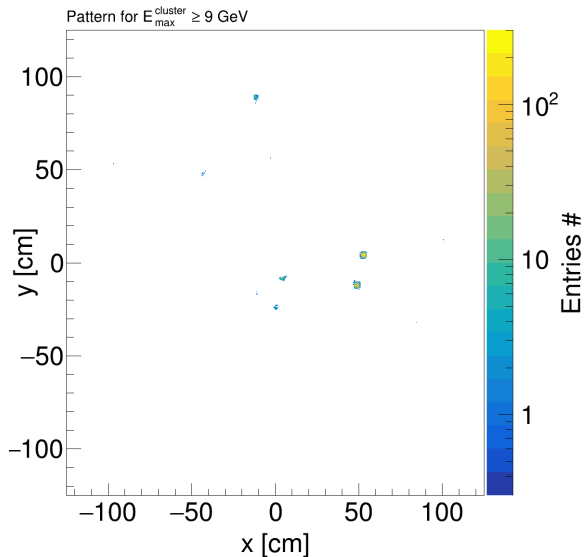Pattern for $E_{max}^{cluster} \geq 6$ GeV

FCAL pattern

Pattern for $E_{max}^{cluster} \geq 7$ GeV

FCAL pattern

Pattern for $E_{max}^{cluster} \geq 8$ GeV

FCAL pattern

Pattern for $E_{max}^{cluster} \geq 9$ GeV

FCAL pattern

Pattern for $E_{max}^{cluster} \geq 10$ GeV