

# FCAL energy calibration QC

Igal Jaeglé

Thomas Jefferson National Accelerator Facility

for the GlueX Collaboration

pbcppmethod0period1

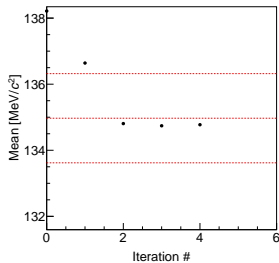


# Table of contents

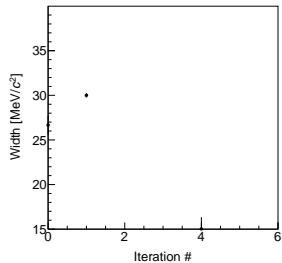
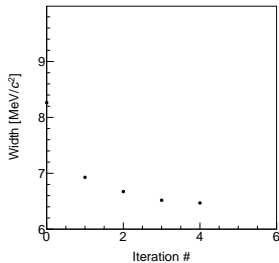
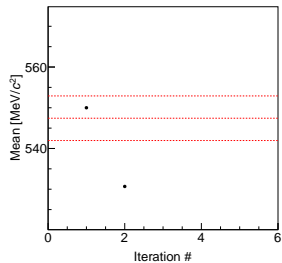
- 1 Overall QC
- 2 QC per rings

# Overall QC vs iteration

•  $\pi^0$

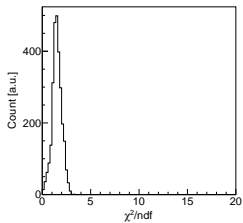


•  $\eta$

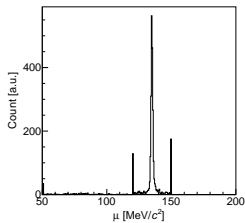


# Overall QC, summary distributions

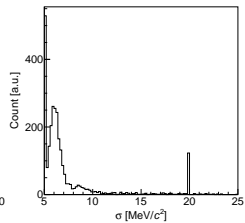
●  $\chi^2$  distribution



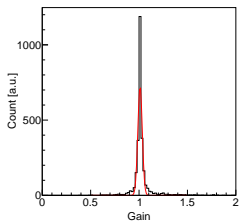
● Fitted peak distribution



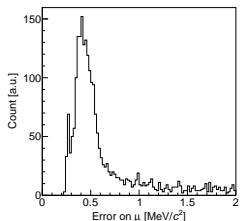
● Fitted width distribution



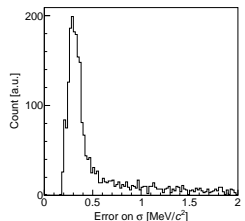
● Gain distribution



● Fitted peak error distribution

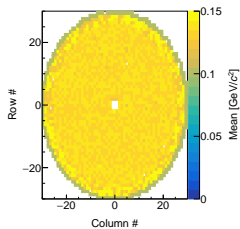


● Fitted width error distribution

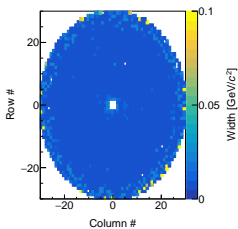


# Overall QC, summary maps

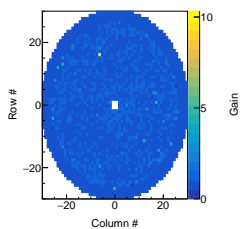
● Fitted peak map



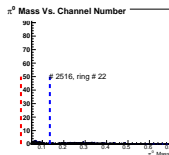
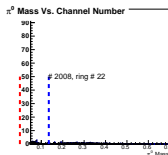
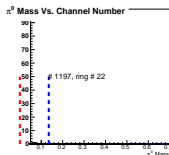
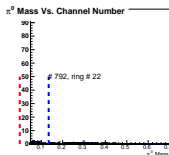
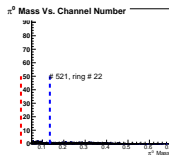
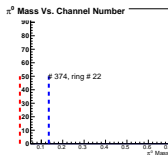
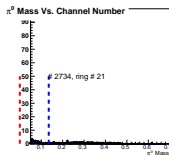
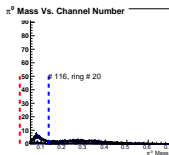
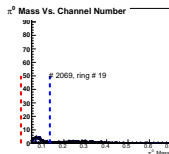
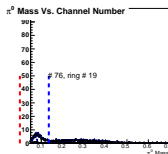
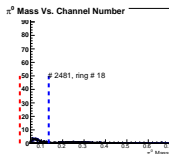
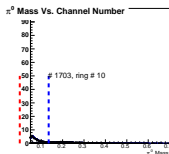
● Fitted width map



● Gain map



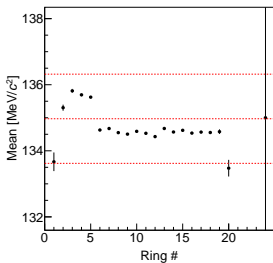
# Overall QC, bad channels



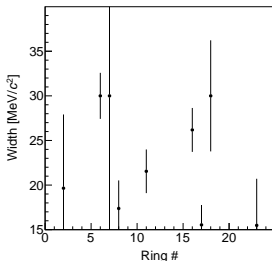
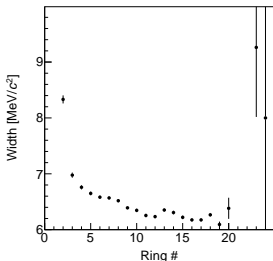
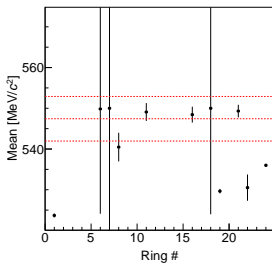
# QC per rings

If radius divided by 5 cm, there is 24 rings

●  $\pi^0$



●  $\eta$



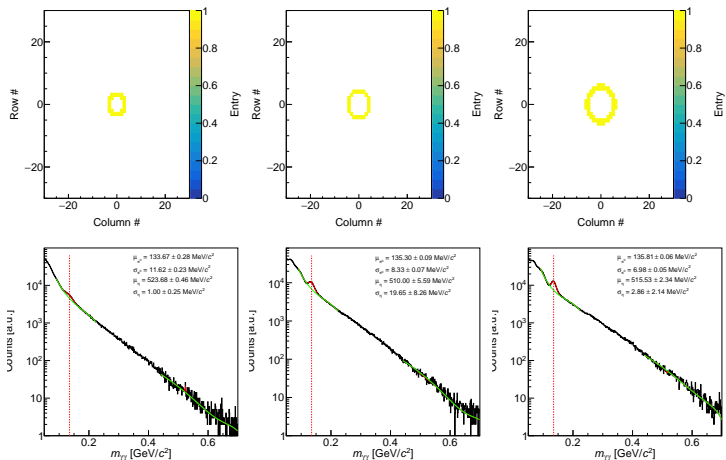
# QC per rings

If radius divided by 5 cm, there is 24 rings

● Ring 1

● Ring 2

● Ring 3





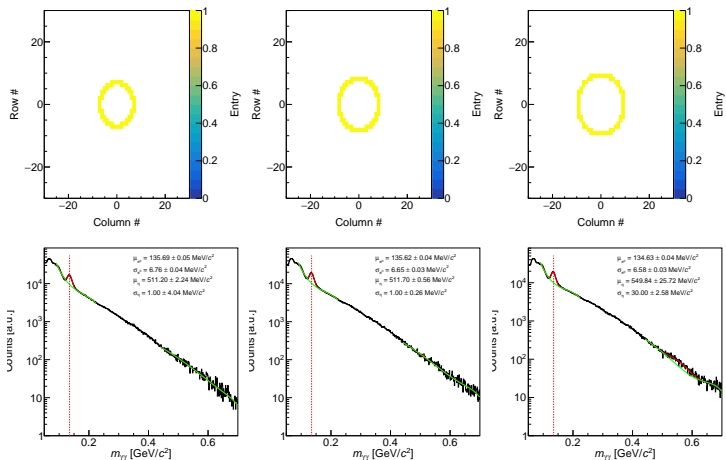
# QC per rings

If radius divided by 5 cm, there is 24 rings

● Ring 4

● Ring 5

● Ring 6



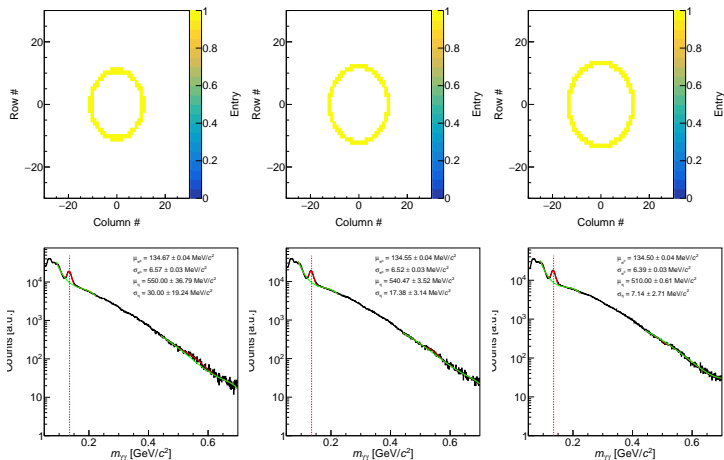
# QC per rings

If radius divided by 5 cm, there is 24 rings

● Ring 7

● Ring 8

● Ring 9



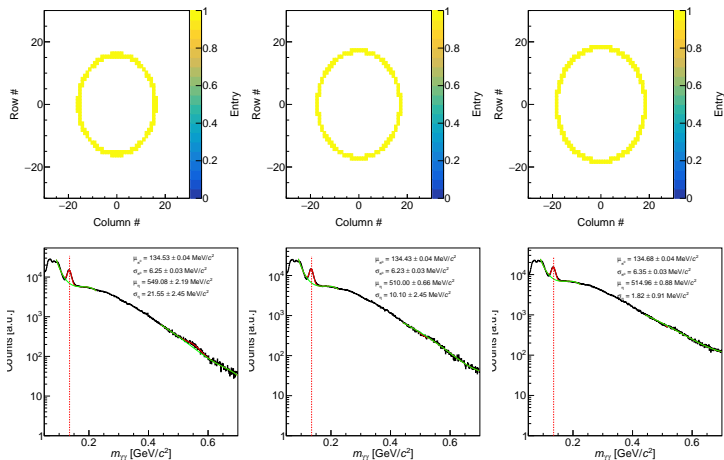
# QC per rings

If radius divided by 5 cm, there is 24 rings

● Ring 11

● Ring 12

● Ring 13



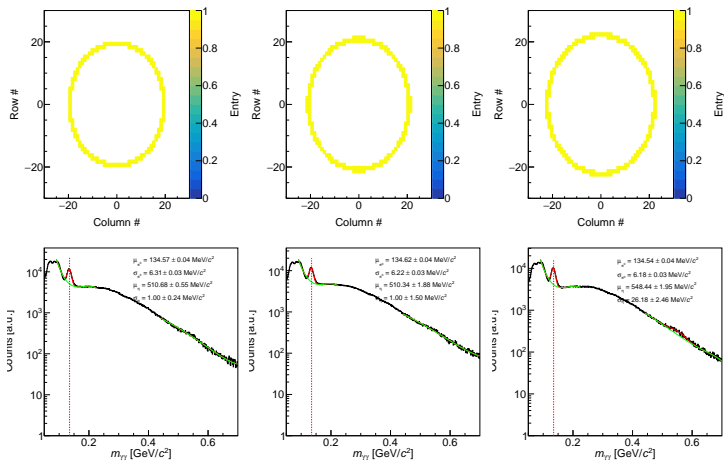
# QC per rings

If radius divided by 5 cm, there is 24 rings

● Ring 14

● Ring 15

● Ring 16



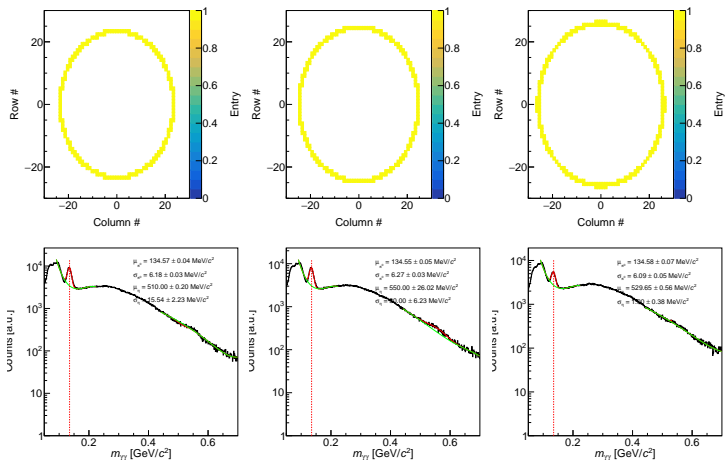
# QC per rings

If radius divided by 5 cm, there is 24 rings

● Ring 17

● Ring 18

● Ring 19



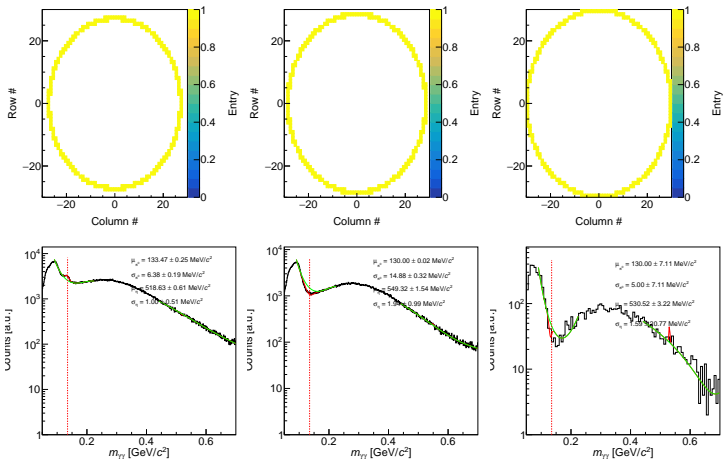
# QC per rings

If radius divided by 5 cm, there is 24 rings

● Ring 20

● Ring 21

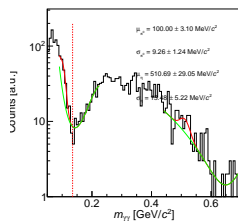
● Ring 22



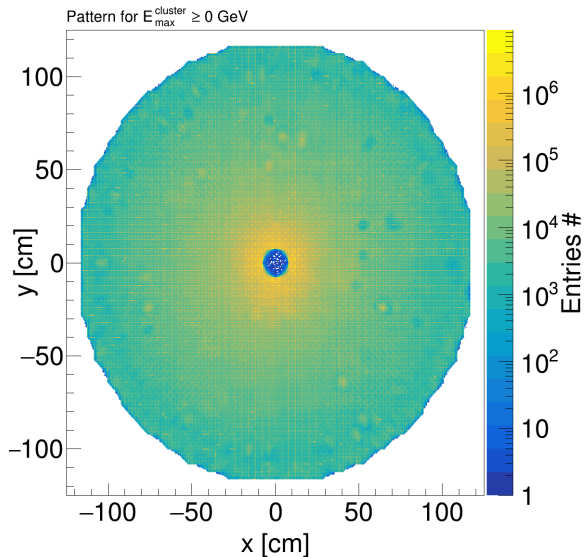
# QC per rings

If radius divided by 5 cm, there is 24 rings

● Ring 23

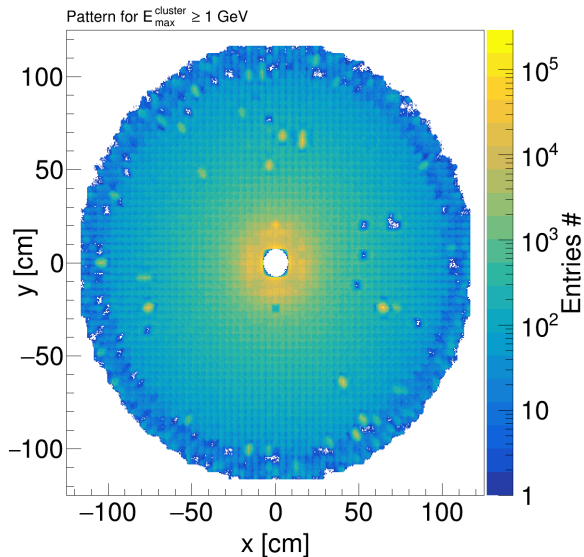


# FCAL pattern

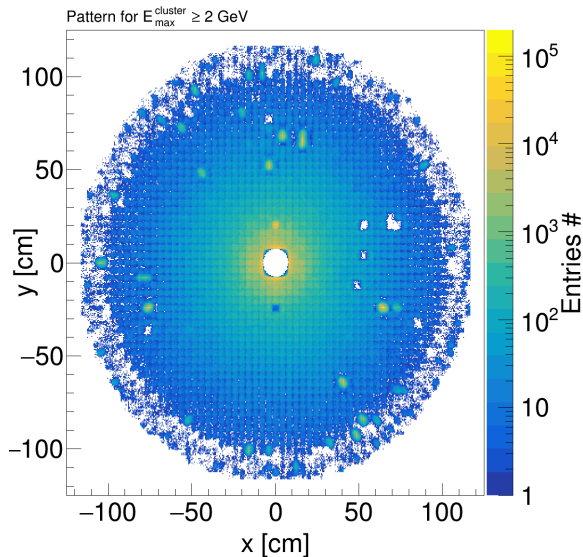




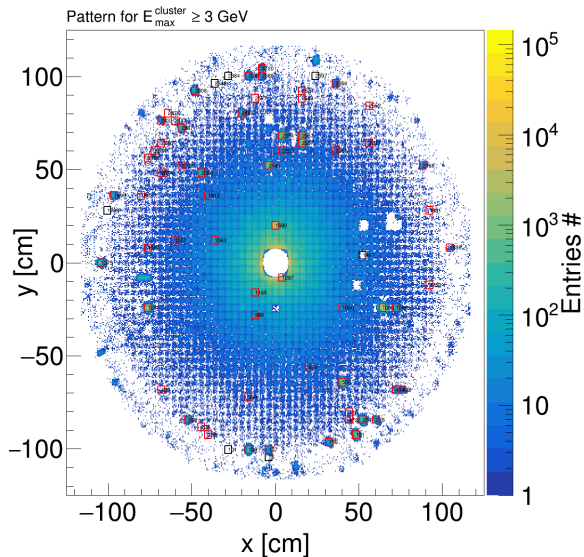
# FCAL pattern



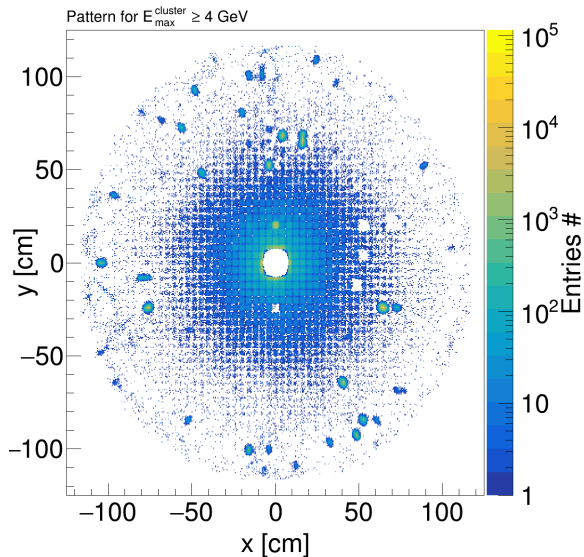
# FCAL pattern



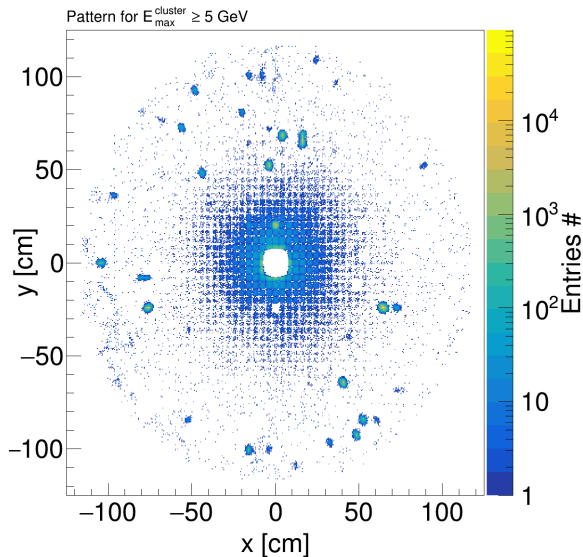
# FCAL pattern



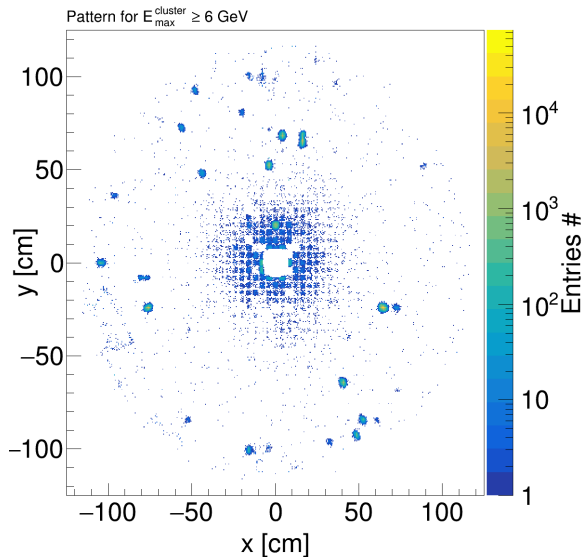
# FCAL pattern



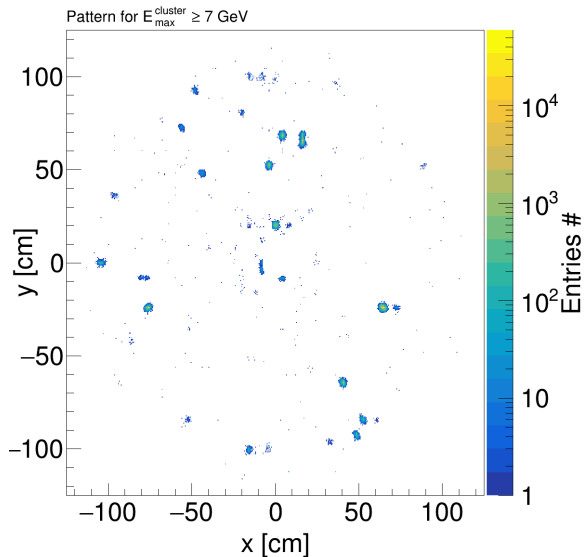
# FCAL pattern



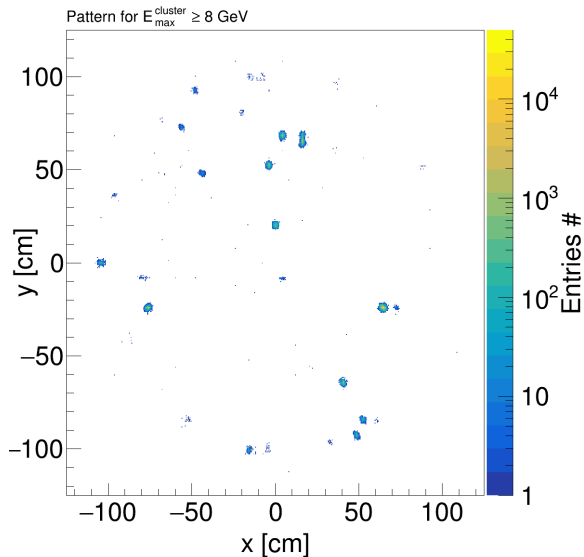
# FCAL pattern



# FCAL pattern

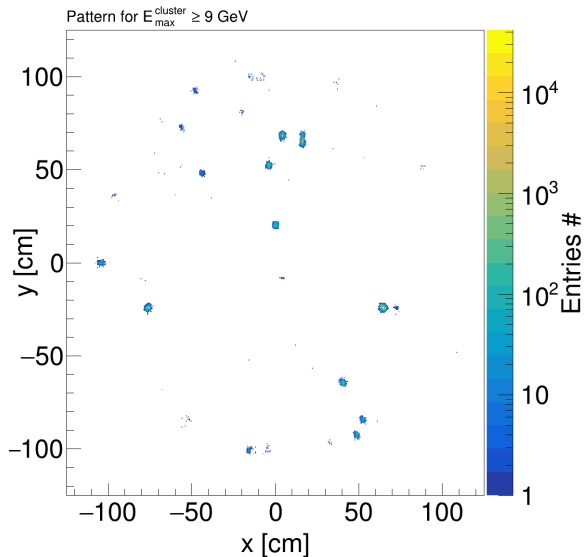


# FCAL pattern





# FCAL pattern



# FCAL pattern

