

# **ECal status for Gep5 Experiment**

**A. Shahinyan**

# Outline

- 1. ECal Frame
- 2. ECal front end electronics
- 3. Super Module, SM
- 3. PMT and Base for ECal
- 4. HV Items for Ecal
- 5. DAQ for Ecal
- 6. Cable system

# Ecal Frame with 2 layer SM



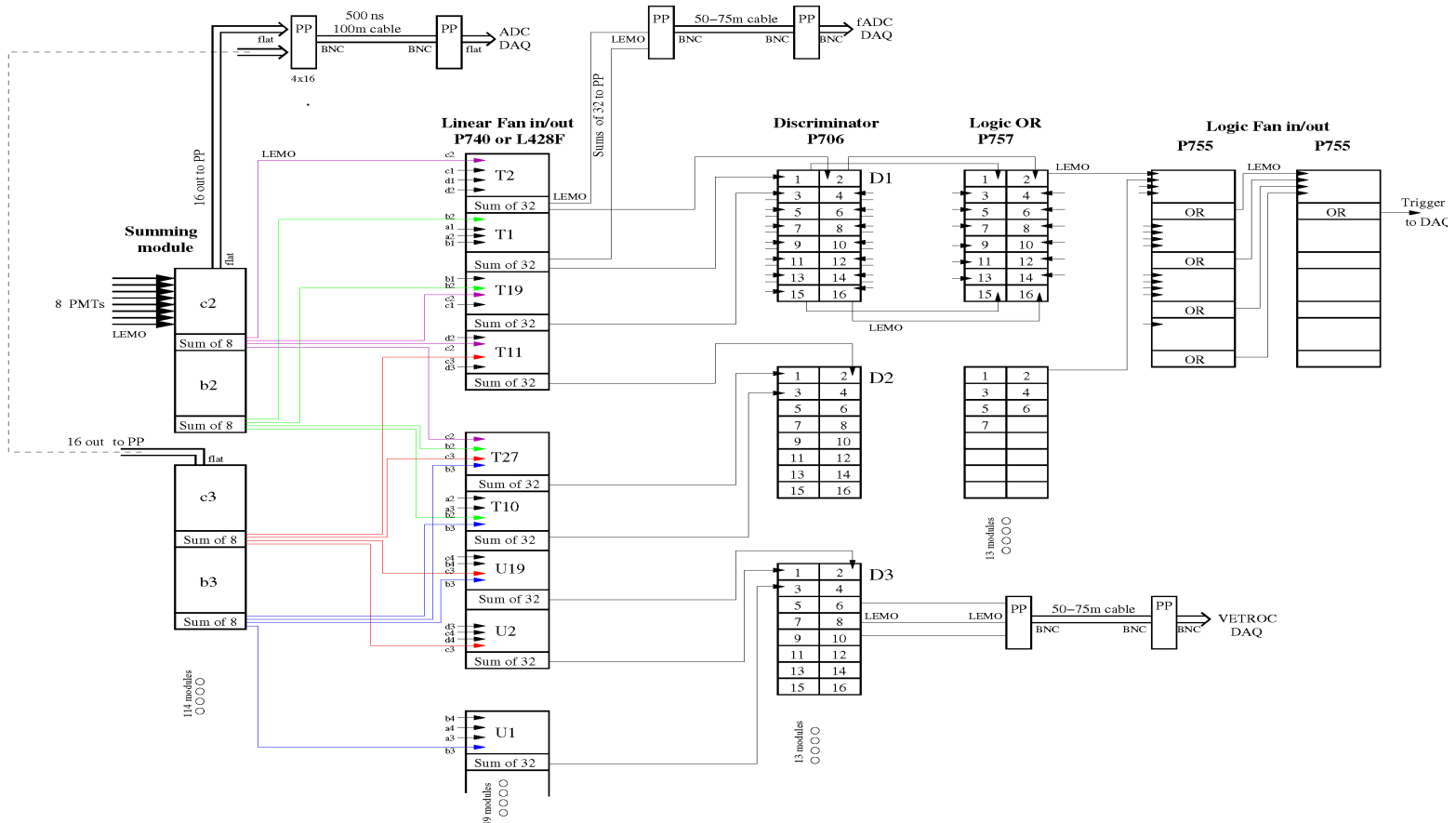
Ecal frame with 2 layer SM front



Ecal frame with 2 layer SM back

# Front end circuit diagram by Iuliia Skorodumina

Diagram of Front End Electronics for ECAL  
Iuliia Skorodumina



# Front End necessary work

- 1. Move ECal frame from ESB to Test Lab
- 2. Move Signal cable hanger from ESB to Test Lab
- 3. Make drawing for Front End Layout
- 4. Make map for inside cable connection
- 5. Labeled all Relay Rack, Crates and Cable

# Super Module



192 SM on shelves, 25 SM  
with kapton film



SM on the lifting device

# PMT and Base for ECal

- 2160 PMT tested by JMU
- Storage in the EEL/90 room 126
- 1050 PMT Base produce by JMU
- 350 Base tested by JMU
- Storage in the EEL/90 room 126
- 480 PMT base from RCS
- 300 PMT base designed Electronics group
- 10 board ready to solder by Electronics group
- 2 base soldered tested by Mark

# DAQ for Ecal

- ❖ DAQ weldment with 10 relay rack in test lab
- ❖ Installed 10 HV crate and 32 HV box
- ❖ Installed Fast Bus Crate with ADC
- ❖ Need to install VEM carte with FADC
- ❖ Need to install CAMAC crate and discriminator



# List of the HV Items for Ecal

- HV crate LeCroy 1458 need 9, have 15
- HV module LeCroy 1461N need 141, have 196
- HV box 48 ch. SHV-27pin, need 36, have 46
- SHV-SHV cable ~4 feet need 1692, have 1800
- 27 wire cable need 72, have 48, to be make 24
- 27 wire cable have for make 75 m HV cable
- Need order 50 each 27 pin HV connector (Donald ordered)
- HV box with plastic connector 48 channel need 36, have 14
- It is necessary to make HV box 22 each, have 1200 each plastic connector.

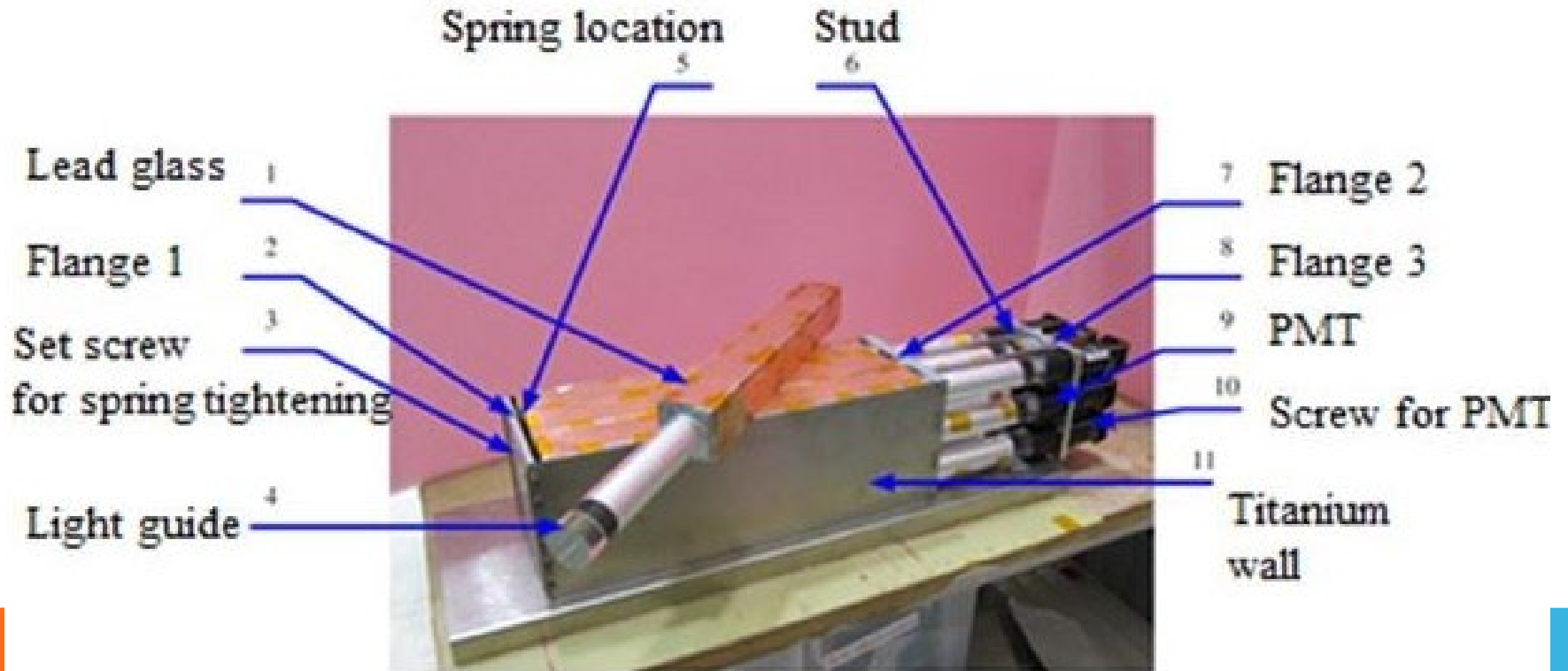
# Cables for ECal

- Make 960 each HV 2/c cable plastic-plastic 6m
- Make ~1050 each cable RG58 BNC-BNC 100 m
- Make 24 each 27 wire HV cable 75 m
- Make 960 each cable RG174 Lemo-Lemo 8 m
- Make 120 ribbon cable from Sum to PP

# List of the items which order Donald

- NIM module CAEN quad linear F/In F/Out 25
- RG174 LEMO signal cables different length
- LEMO connectors for 8m signal cable
- 27 conductor HV cable` received
- RG58 signal cable for 100m BNC-BNC cable  
227000 feet
- Fischer 27-pin connectors 2 each for cable and 2  
each HV box ( for test)
- Rack mount Al box for HV box
- 19” Blanks Panel for patch panel

# ECAL SUPERMODULE



Thank you  
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10/10/2022