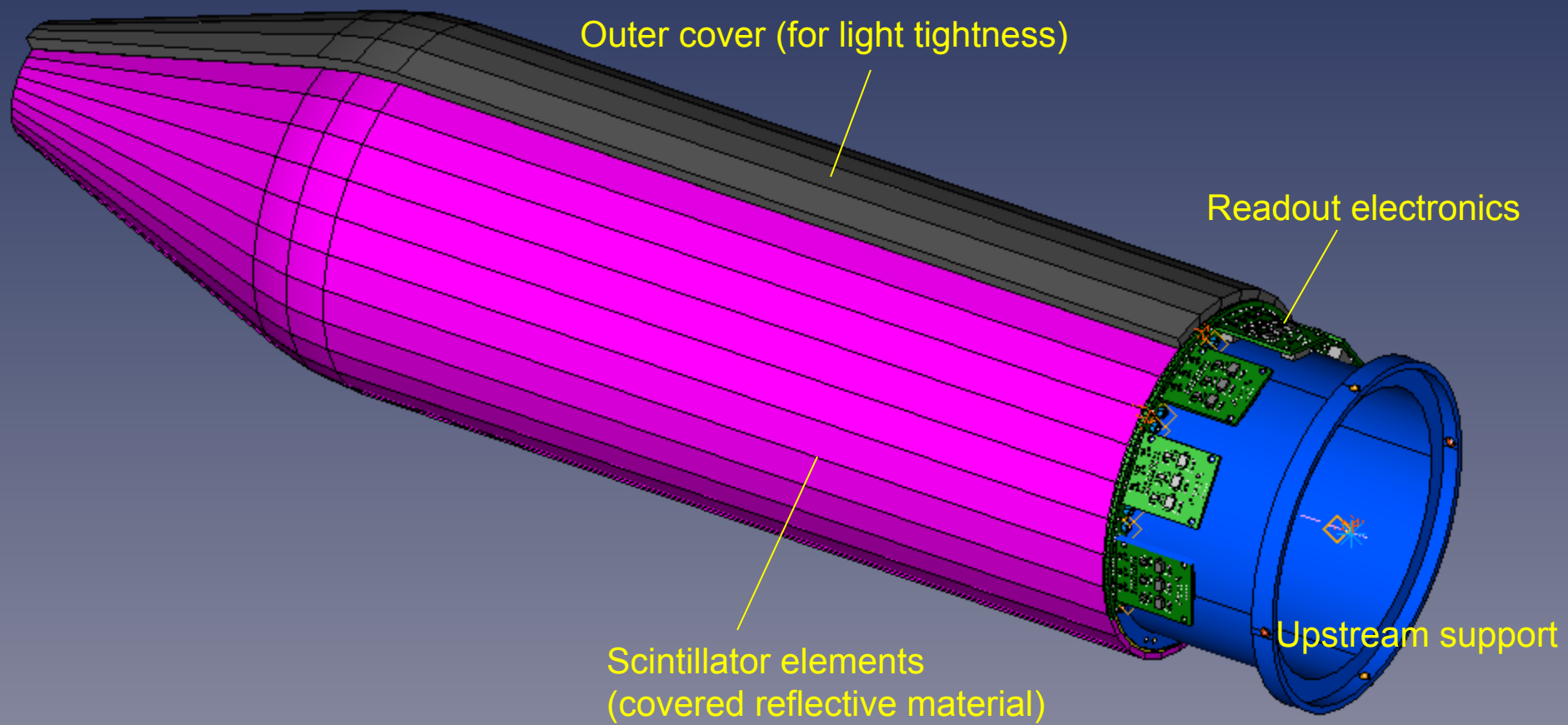
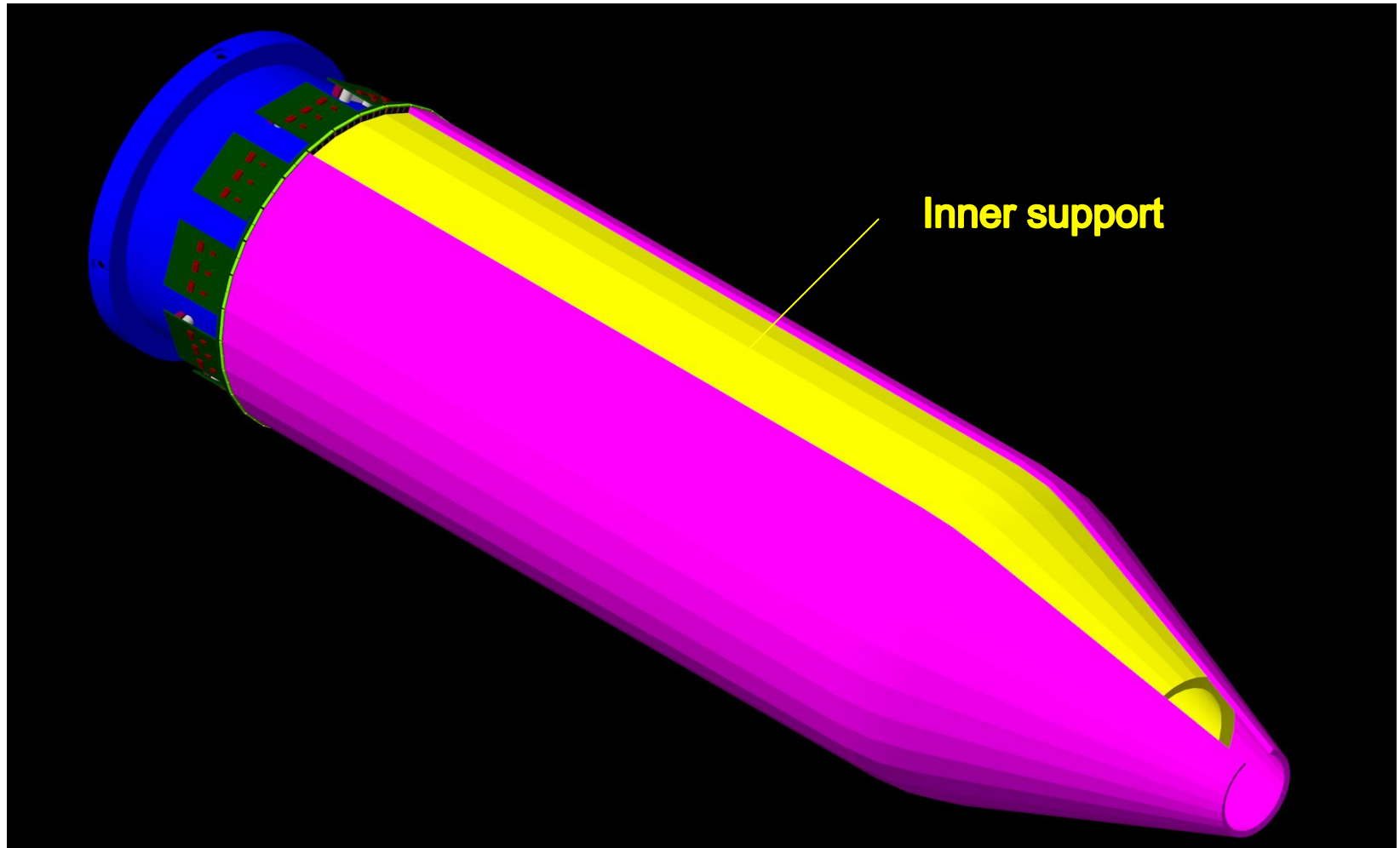


# Start Counter Update

W. U. Boeglin, L. Guo, E. Pooser





## ST 1

- 3 groups of SiPM
- Signal sum for each group
- Bias for each group

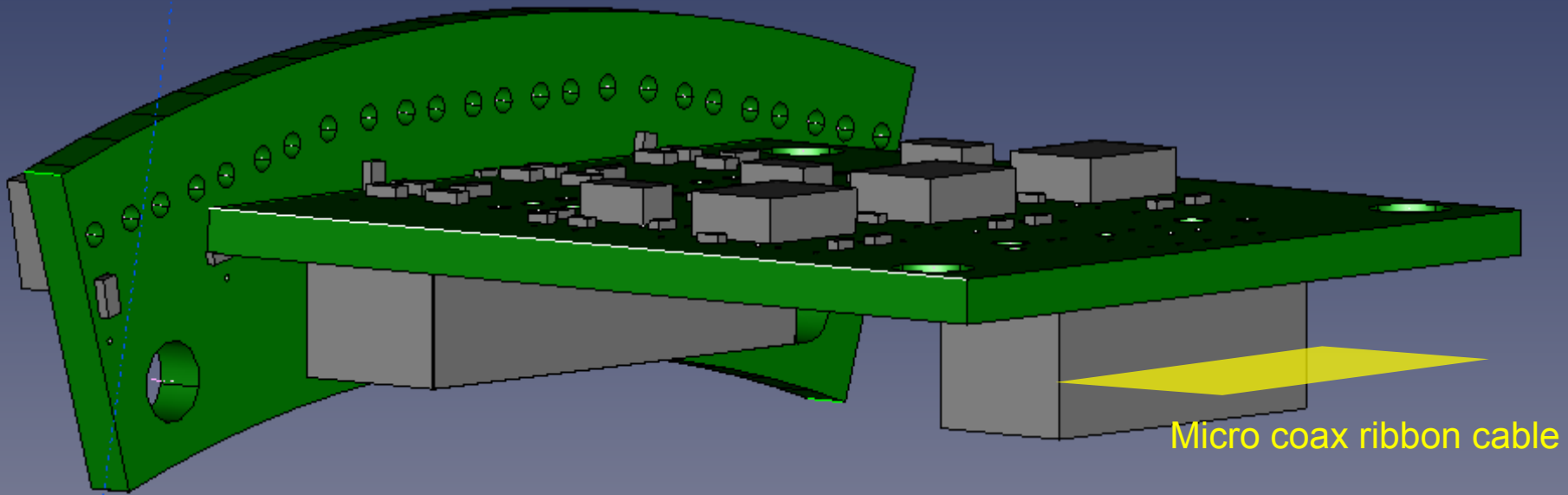
Readout  
Electronics  
board

## ST 2

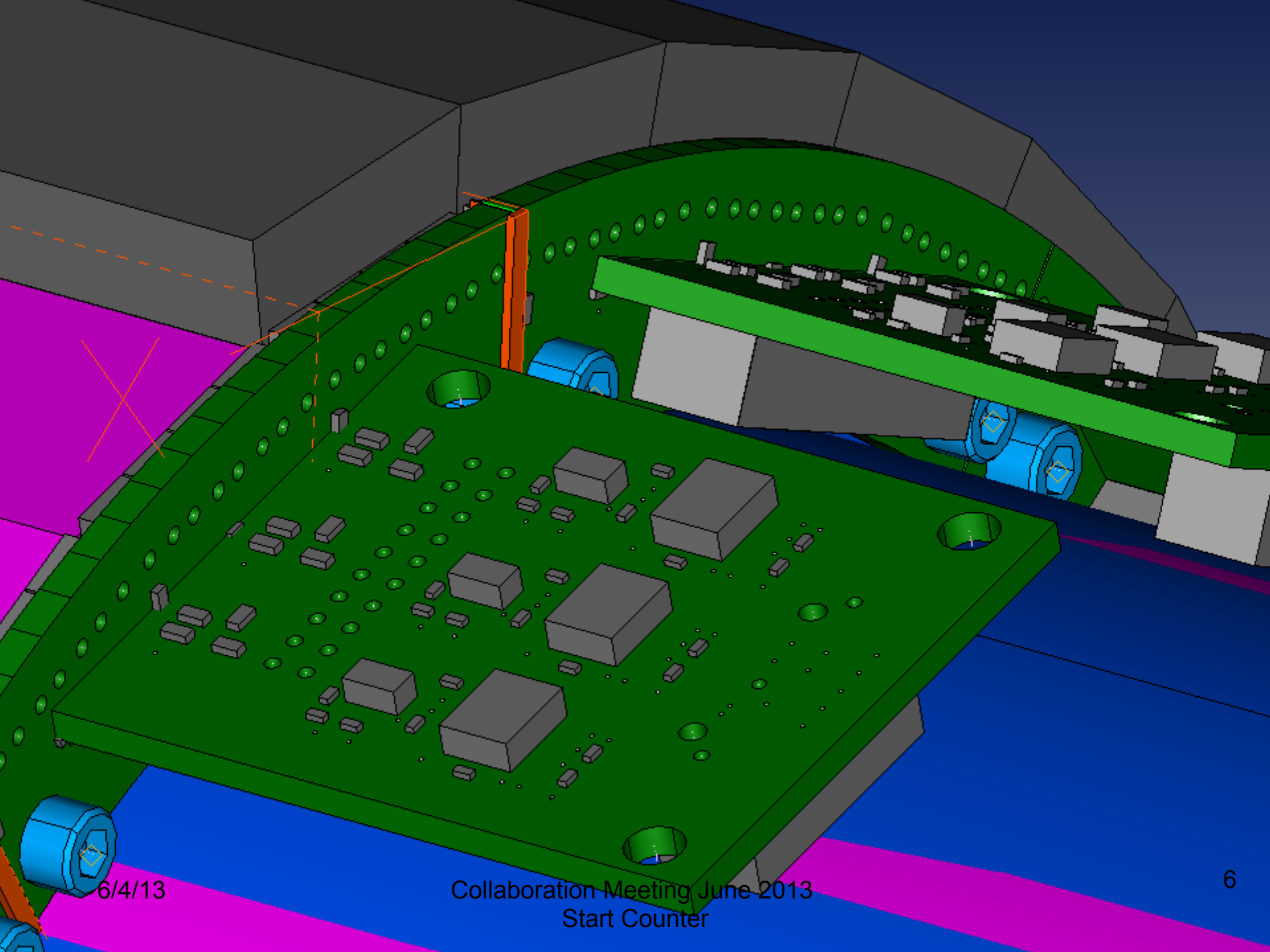
- Preamp
- Buffer to ADC
- X5 amp to TDC
- Temperature regulation
- Thermo couple

SiPM (surface mounted)

Scintillators



Micro coax ribbon cable



6/4/13

Collaboration Meeting June 2013  
Start Counter

# Recent Developments

- Contract with Jefferson Lab signed
- Scintillator manufacturing
- Production test stand design
- Assembly setup design

# Scintillator Manufacturing

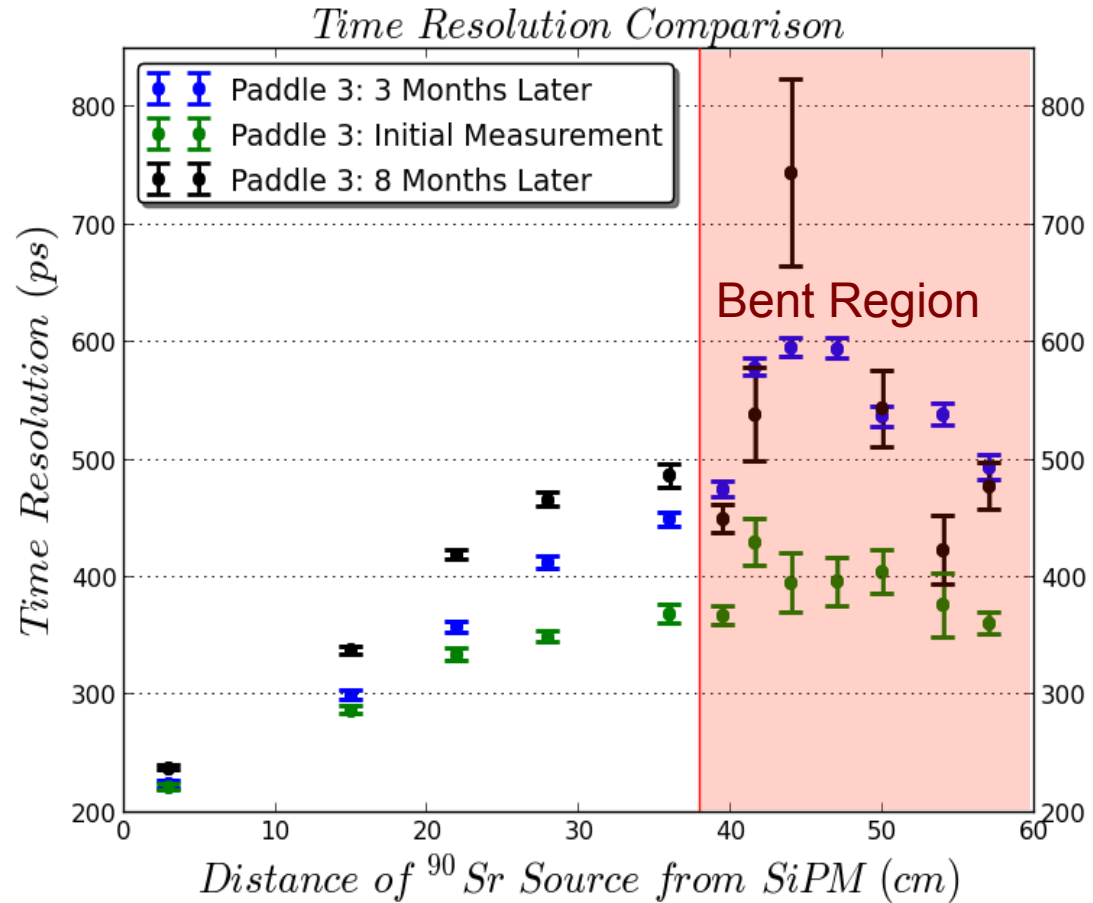
- Eljen is bending scintillator bars
  - Turned out to be more difficult than expected
  - New protective material for machining
  - Expect better protection
- McNeal is machining the edges
  - Detailed handling instructions
  - Expect better result
  - New batch of 5 scintillators to arrive next week



# Scintillator Bar Aging

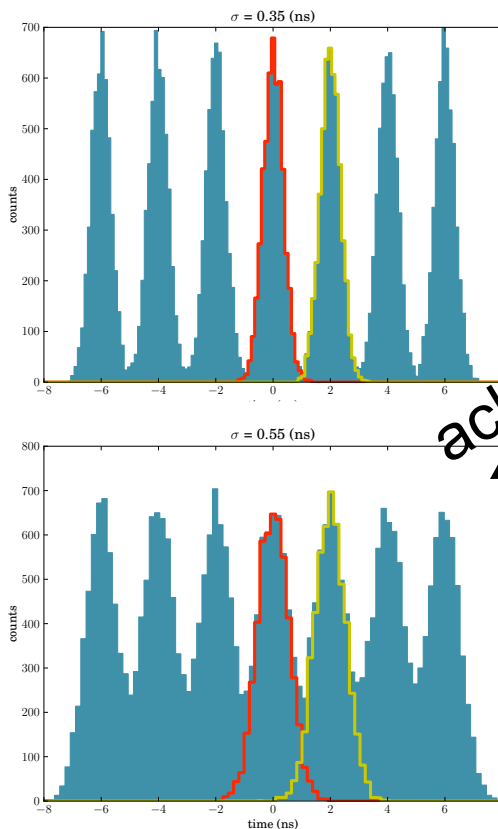
## Expected Results

- No more performance deterioration
- Improved performance

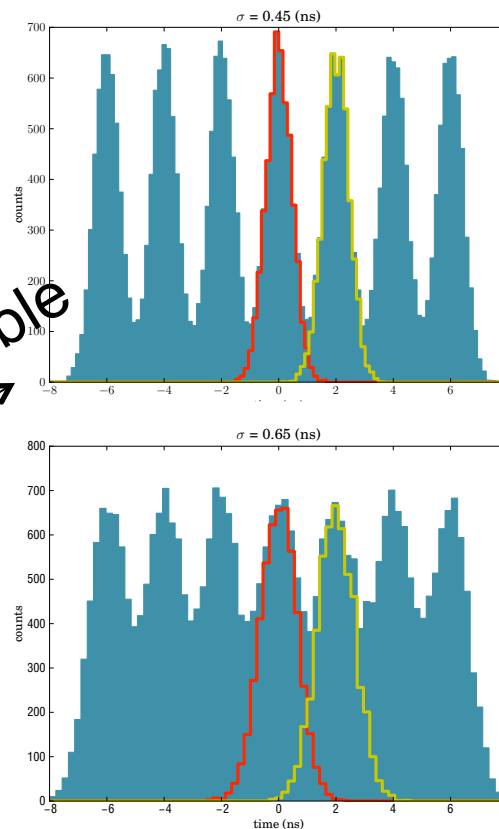


# Beam Bunch Separation

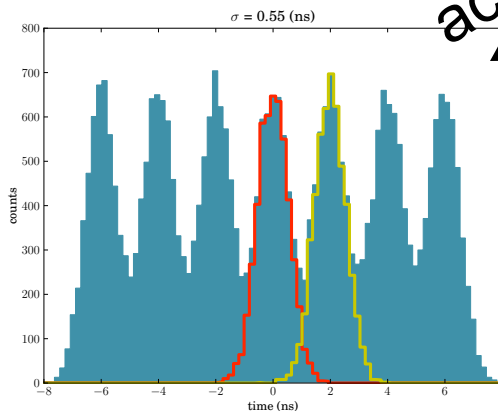
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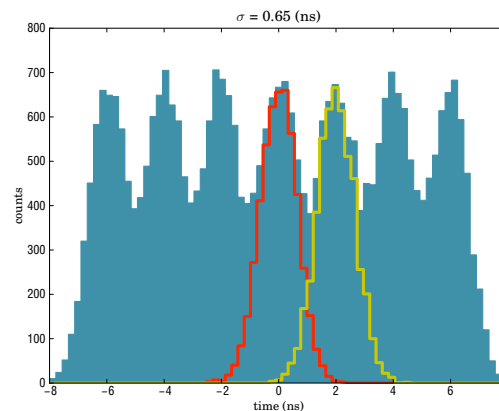
3%



7%



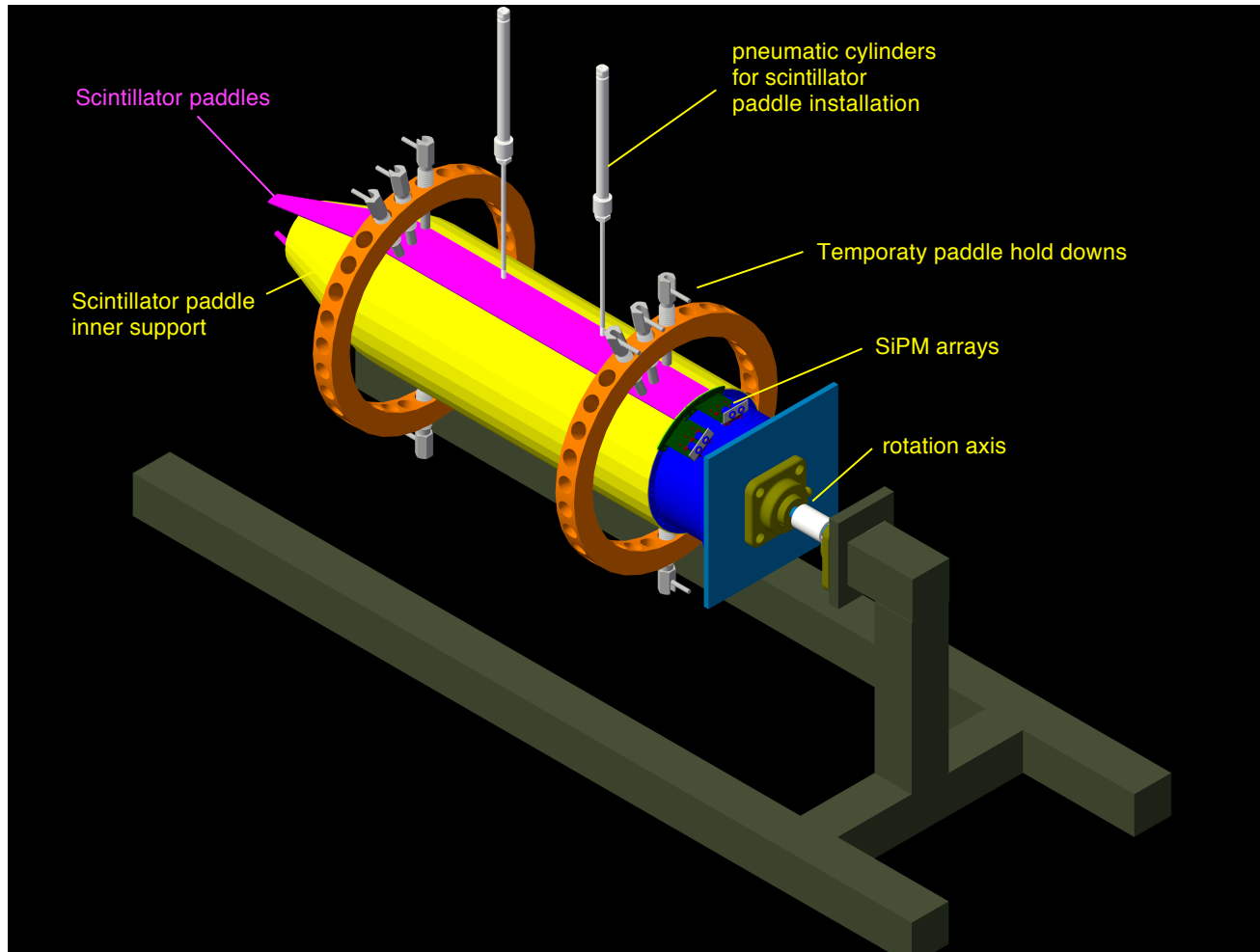
13%



achievable



# Assembly Setup



# Plans

- Perform timing studies on new Eljen/McNeal paddles
- Construct production test stand
- Order materials
- Construct assembly setup
- Start Production