

# Start Counter Update

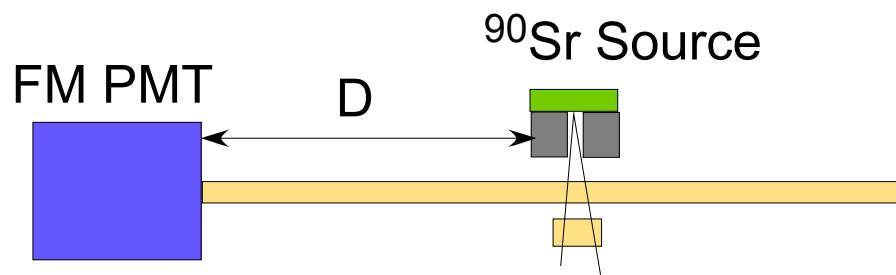
W. U. Boeglin

- More measurements on EJ-200 scintillator bars
- New graduate student working on start counter
- New faculty member: Lei Guo

# EJ-200 Scintillator Bar Studies

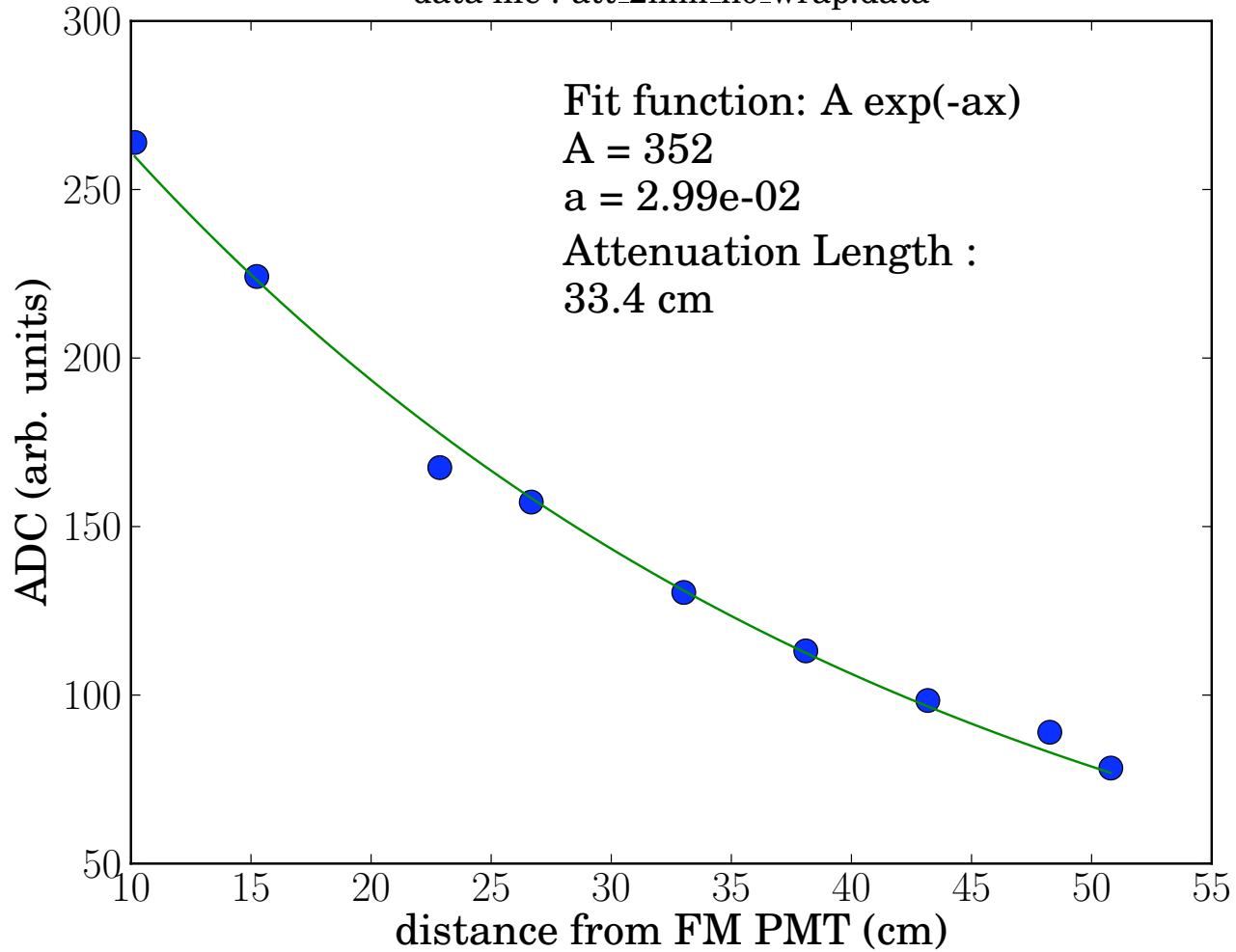
- Dimensions: 10 mm x 600 mm: thicknesses: 2, 3, 5 mm
- Measurements on 2, 3 and 5 mm detector
- Repeated measurements on 2 and 3mm bars
- with and without wrapping mounted in dark box
- FMPMT touches end of scintillator, no grease
- Used  $^{90}\text{Sr}$  source

Light output measurements:



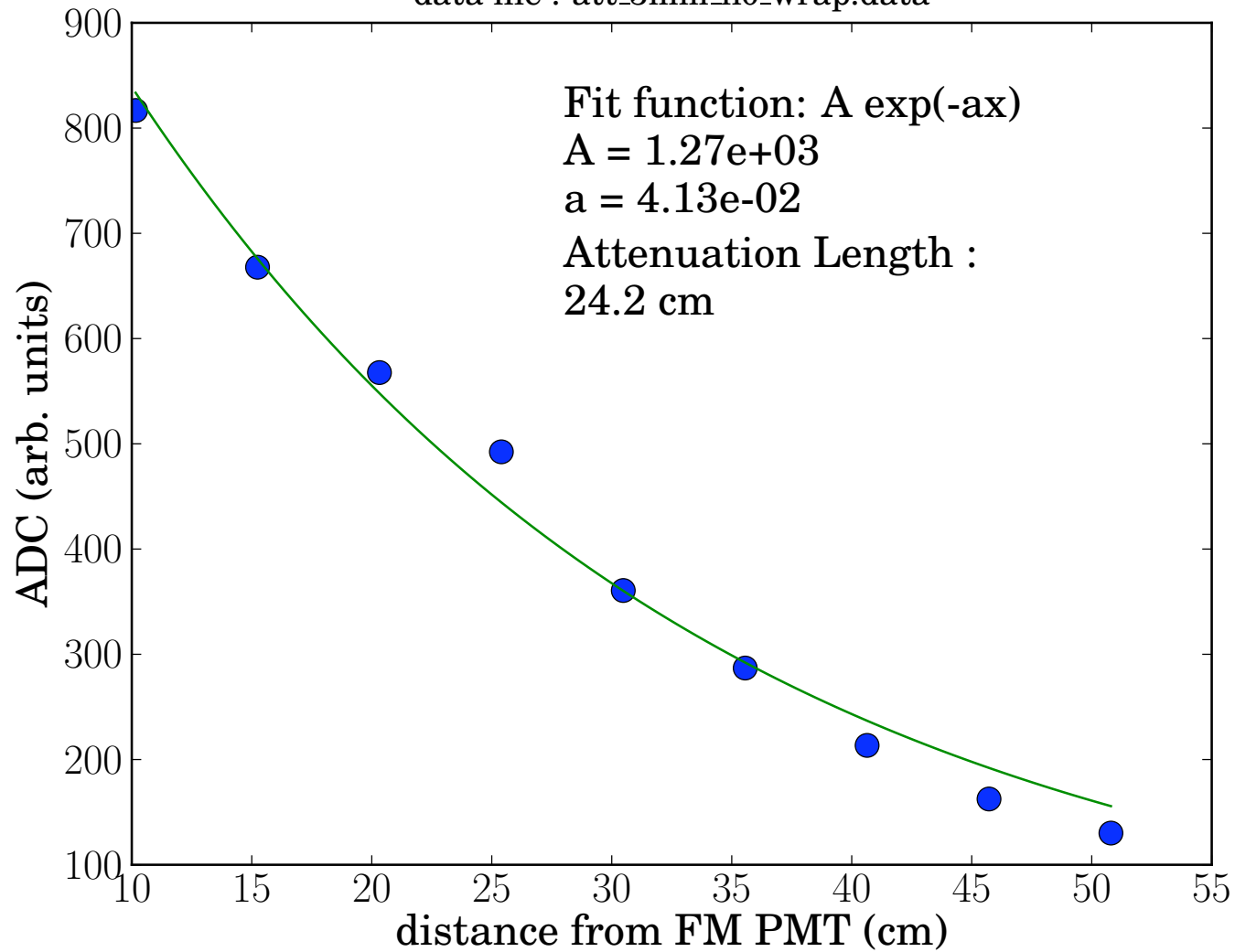
# 2 mm

data file : att\_2mm\_no\_wrap.data



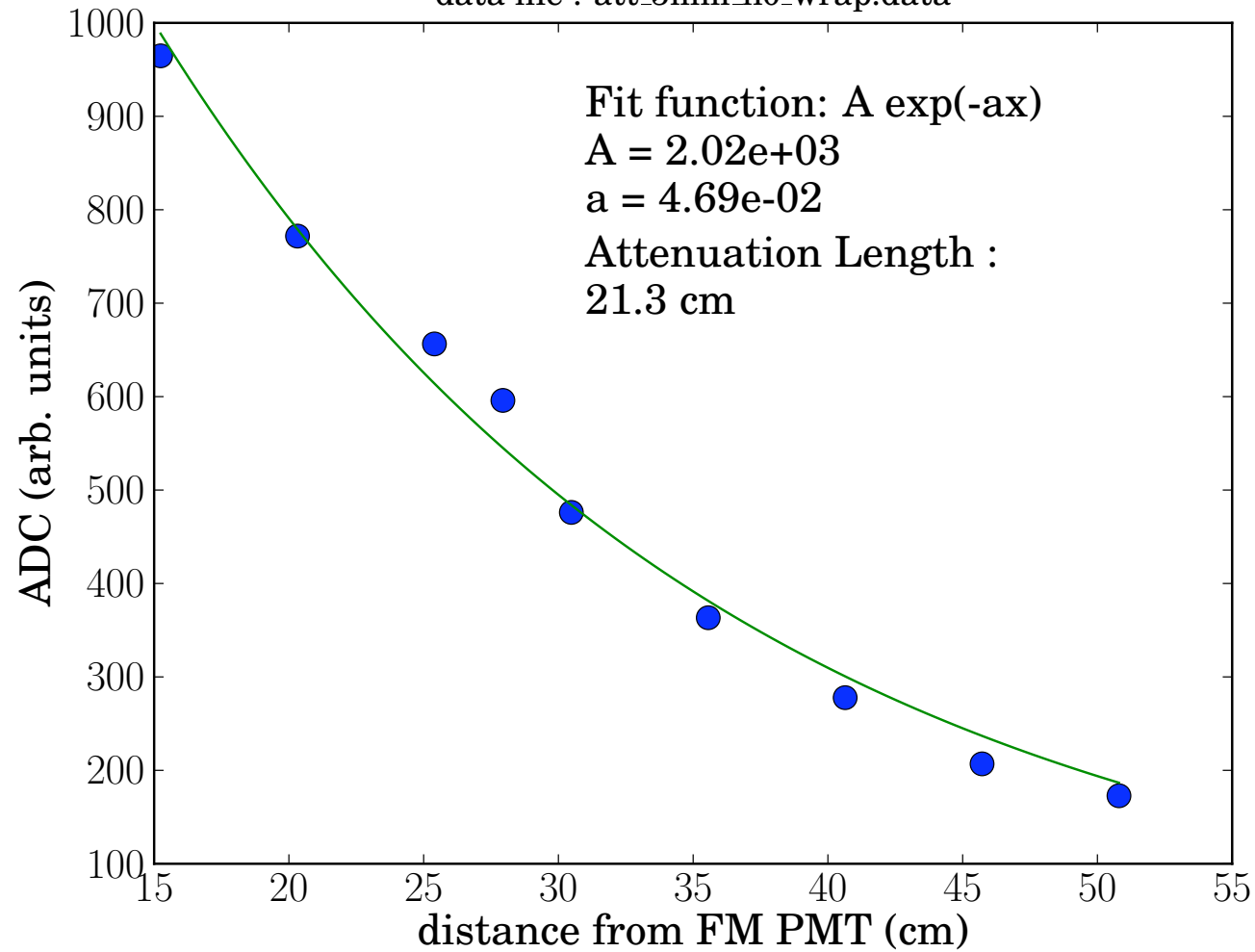
# 3 mm

data file : att\_3mm\_no\_wrap.data



# 5 mm

data file : att\_5mm\_no\_wrap.data



# Summary

- results contradictory to experience (decreasing thickness  
⇒ increasing attenuation length)
- suspect poor surface quality
- need to polish surfaces
- building setup for bending and machining scintillator bars
- new SiPM just arrived, setting up for measurements