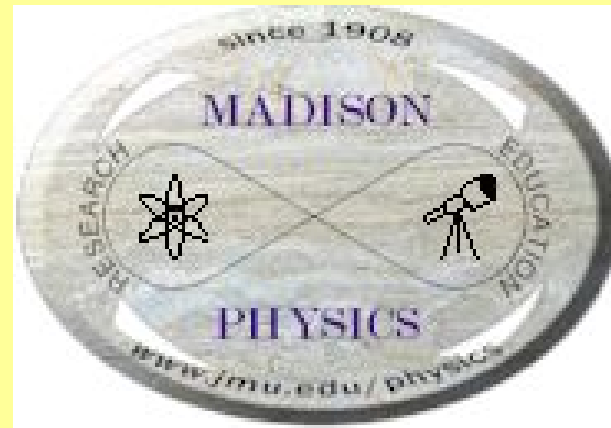


***Testing Readout for the
Preshower Calorimeter PCAL
[12 GeV Upgrade]***

Kevin Giovanetti
Students

Nick Herge, Ross Fenwick,
Chris Ambler, Bonnie Ludka,



James Madison University

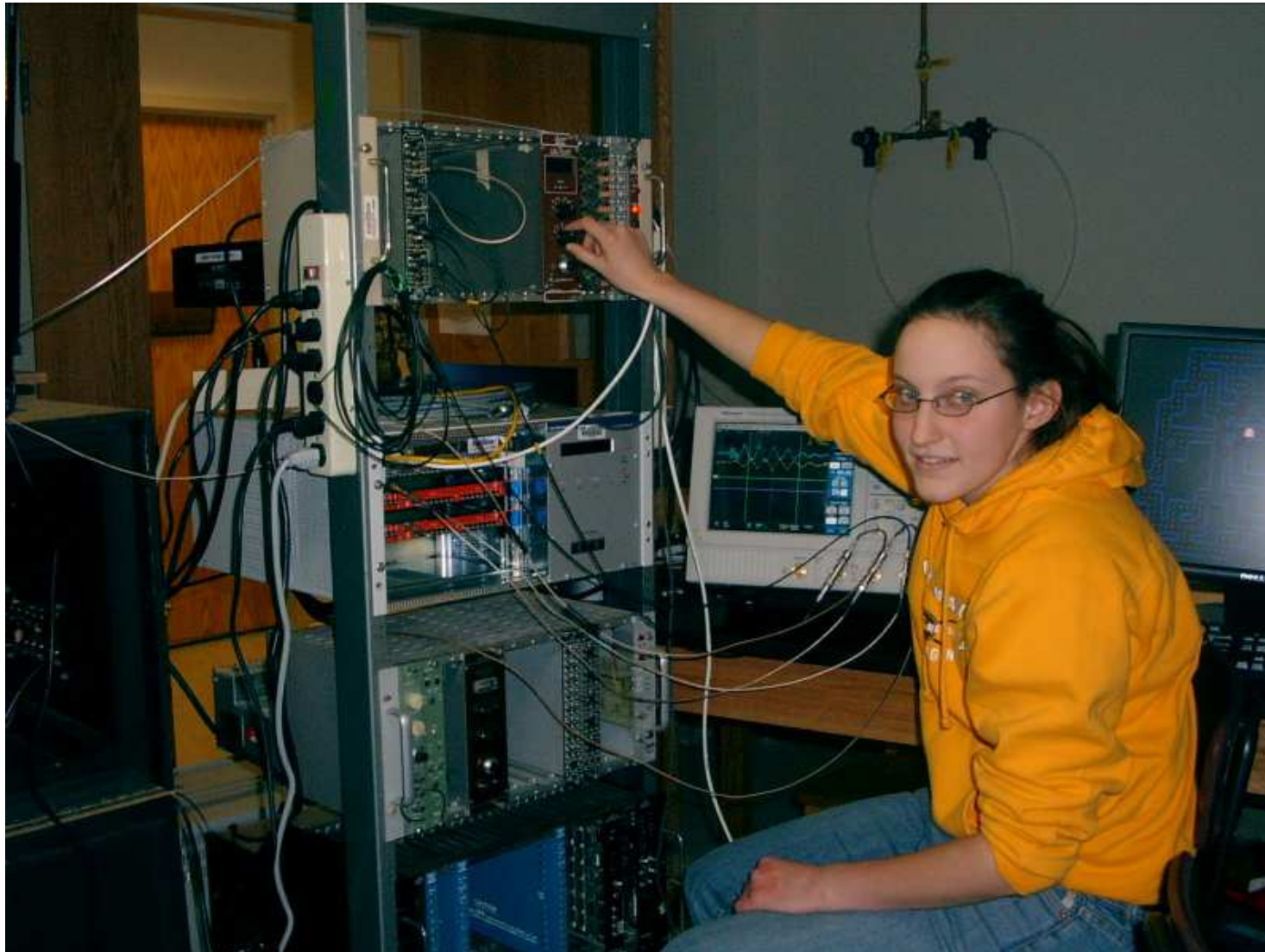
goals

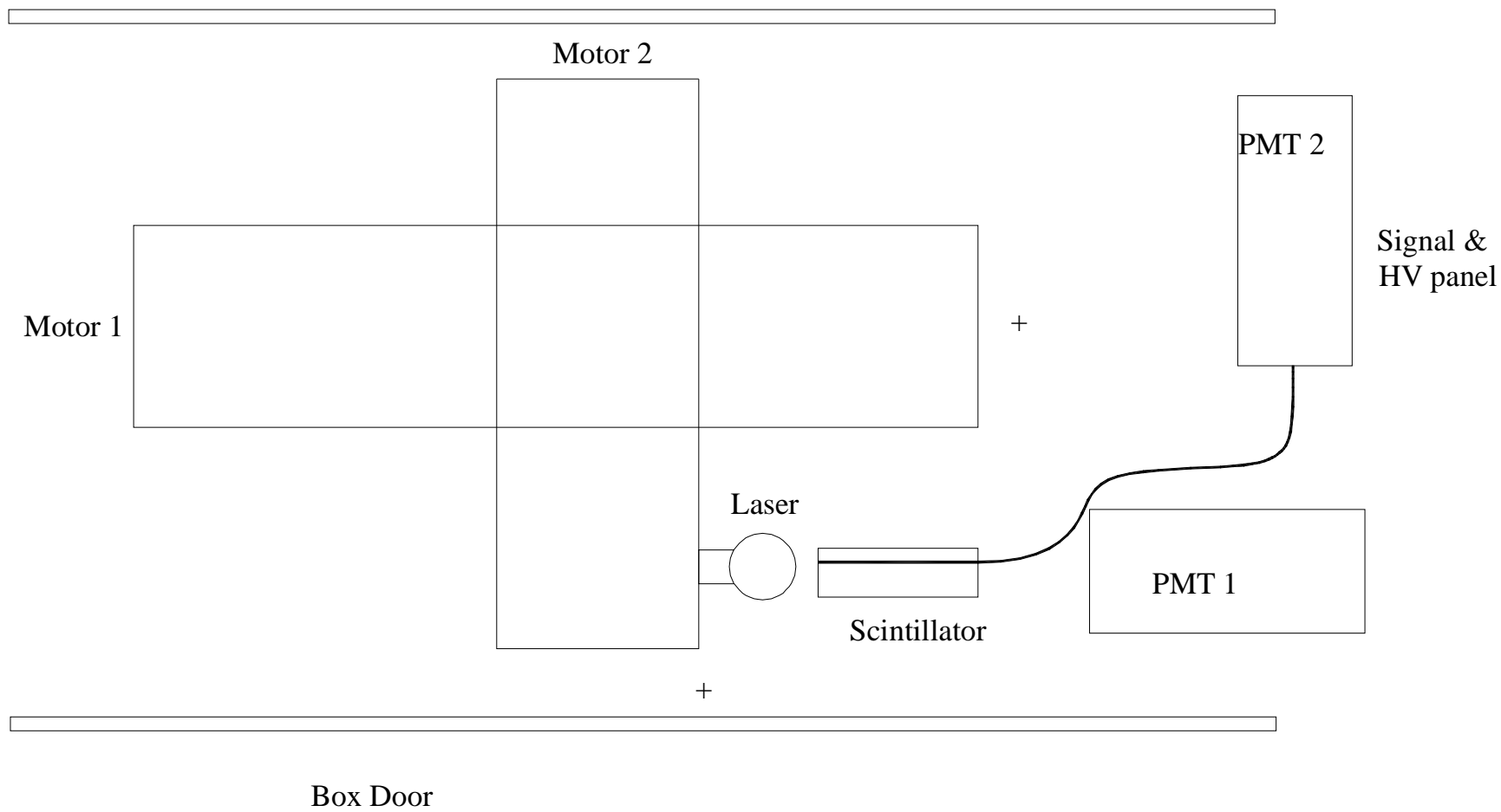
- Test fiber readout
 - Fiber coupling
 - Glue impact
 - X-Y dependence

progress

- Coda lite QDC and TDC
 - Local network, minicom, prom programming
(Significant help from CODA group)
- Scanner x-y motion
- Scintillator excitation diode laser
- Analysis EB file -> root
- Root
- UV curing system for gluing fibers

VME/Electronics







Setup:

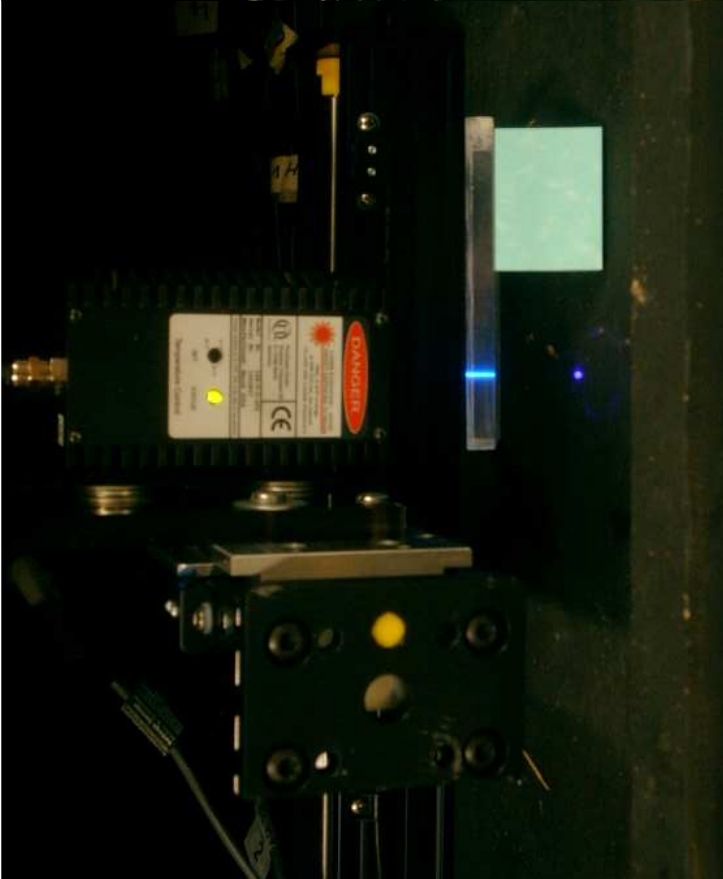
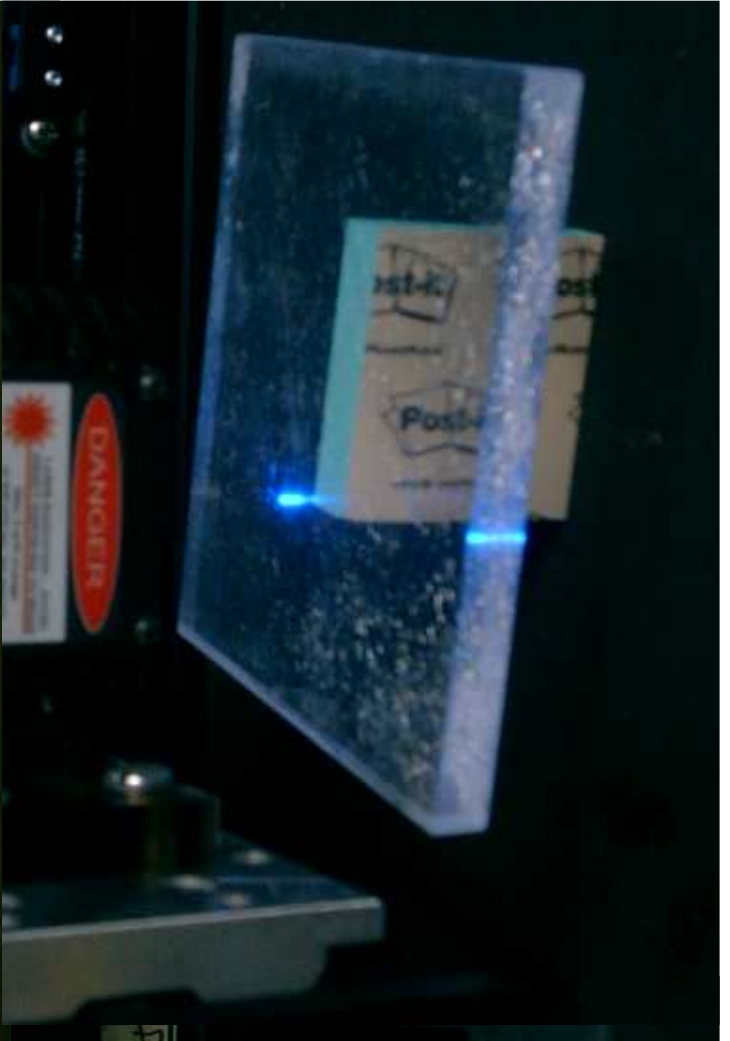
Laser

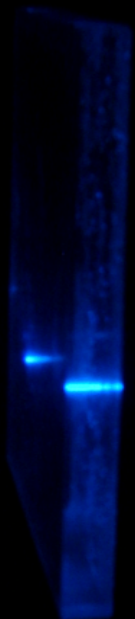
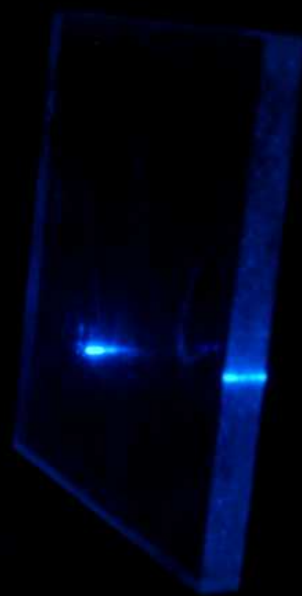
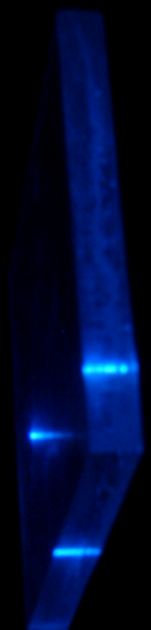
Steppers

Fiber

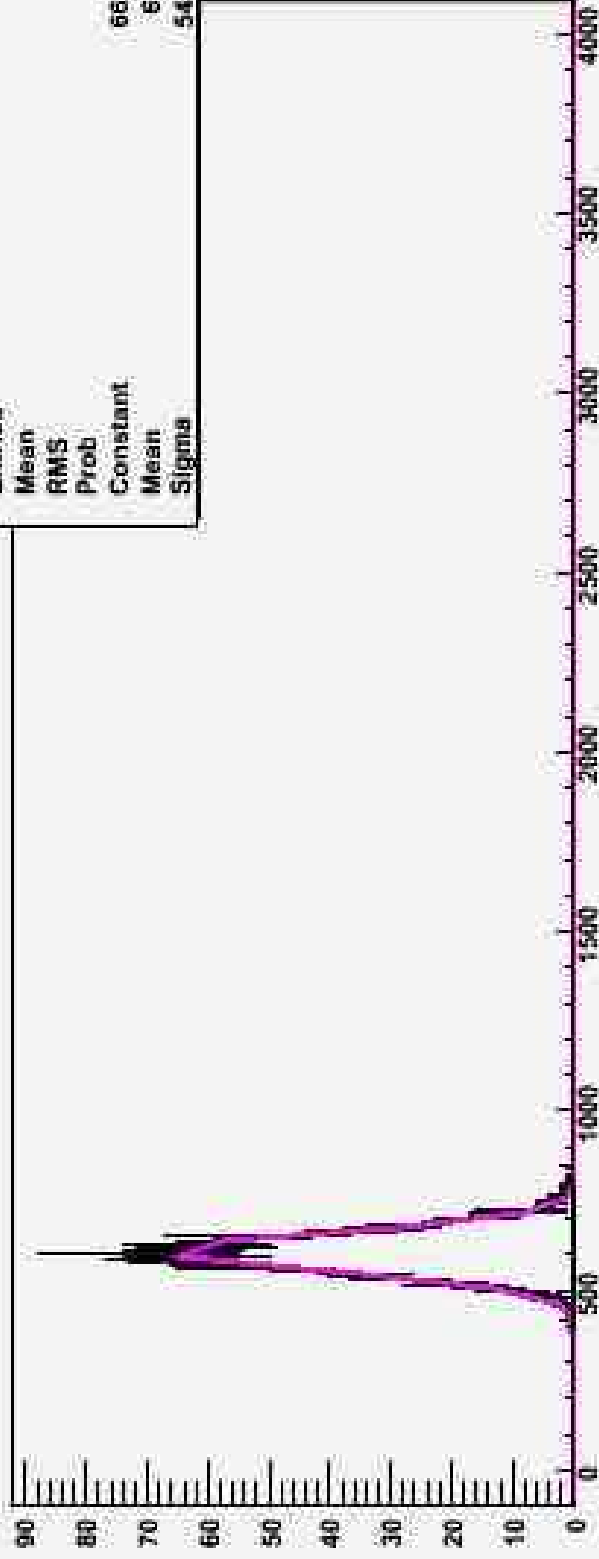
PMTs







QDC ch= 0 Low



qL0

Entries	9390
Mean	606.7
RMS	56.11
Prob	0.3987
Constant	66.66 ± 0.67
Mean	605.5 ± 0.6
Sigma	54.34 ± 0.44

QDC ch= 1 High



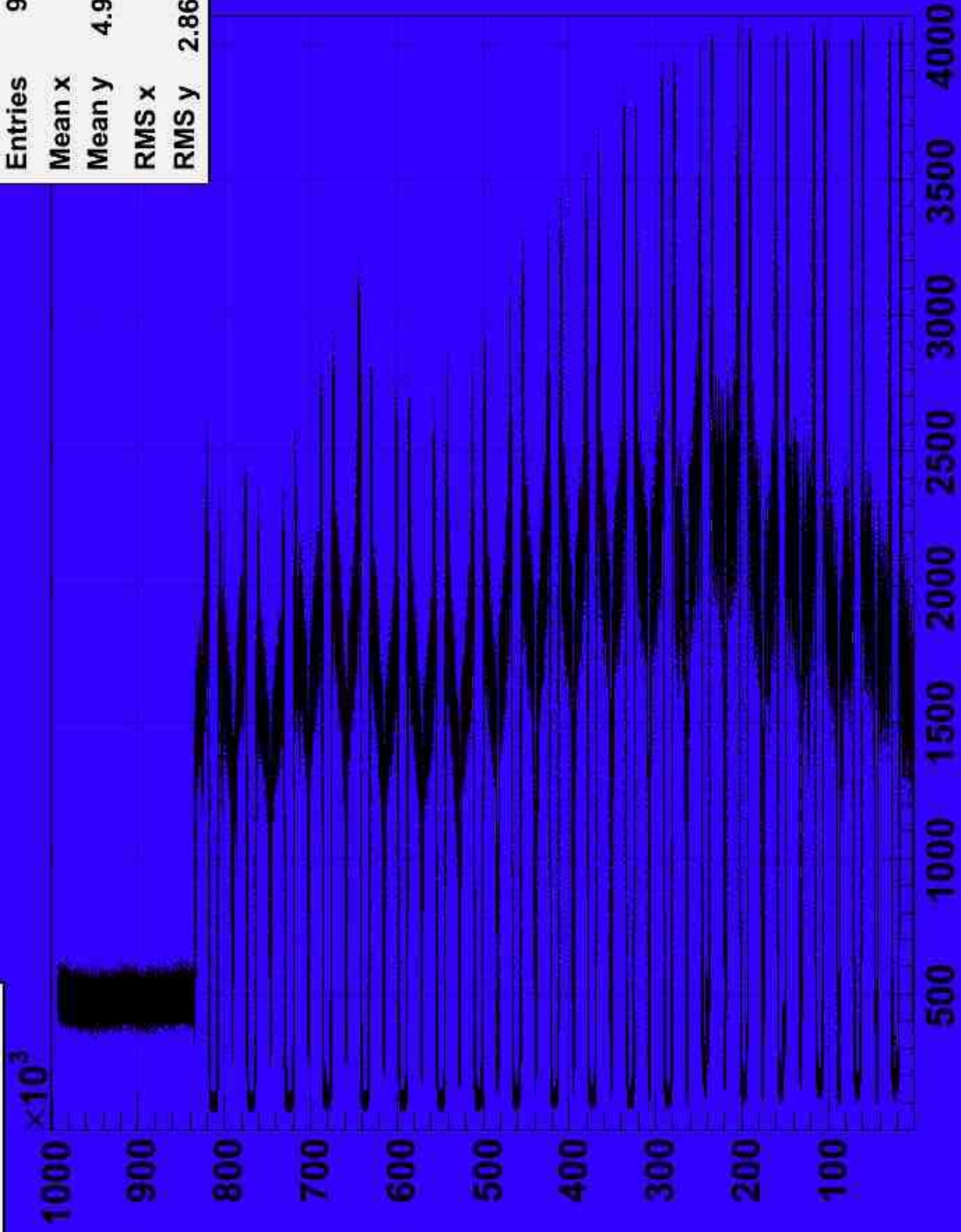
qH1

Entries	9390
Mean	550.3
RMS	65.99
Prob	0.08967
Constant	43.00 ± 0.58
Mean	547.5 ± 0.9
Sigma	82.53 ± 0.72

monitor lo

monL

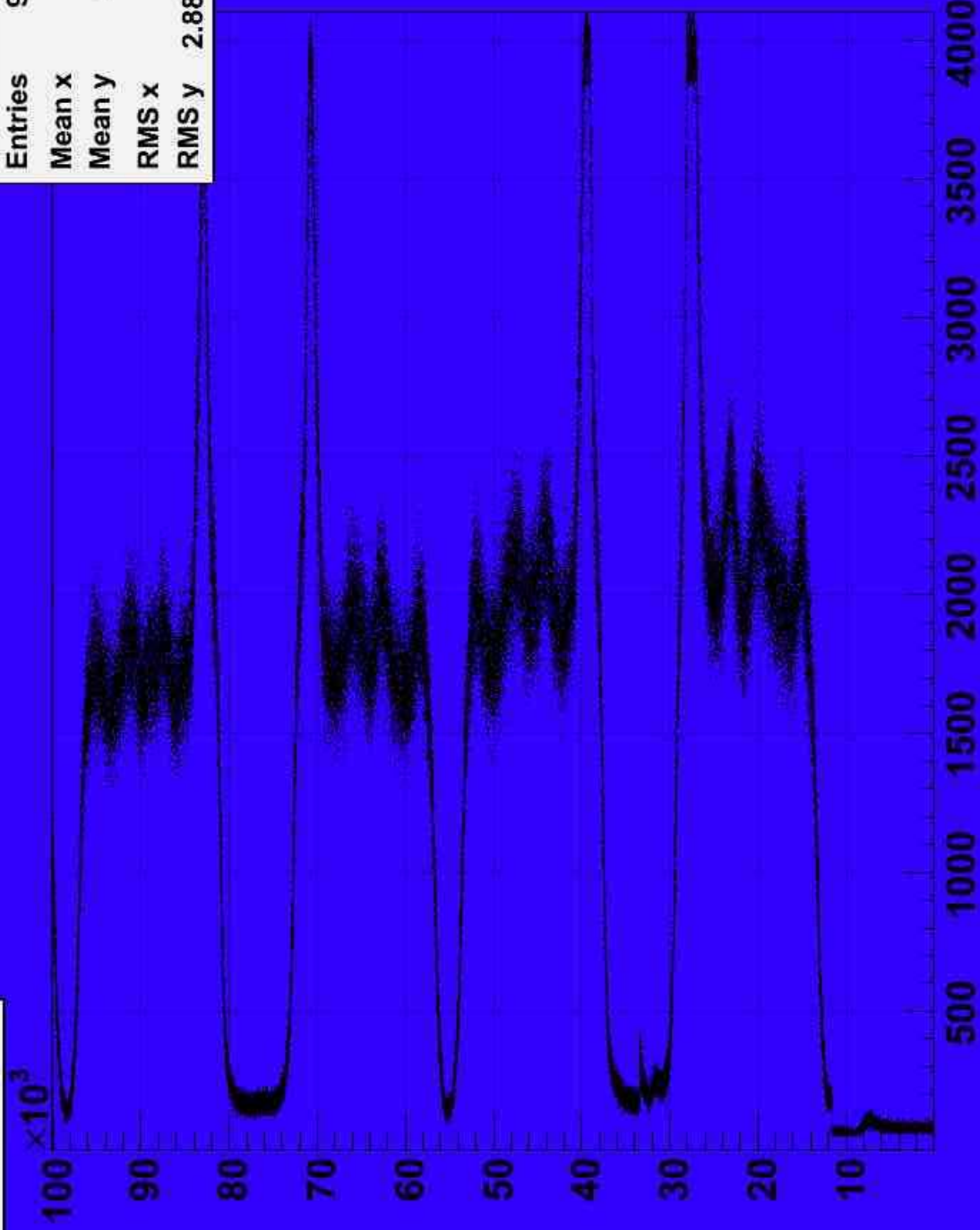
Entries	989755
Mean x	1326
Mean y	4.97e+05
RMS x	863.3
RMS y	2.862e+05



monitor lo

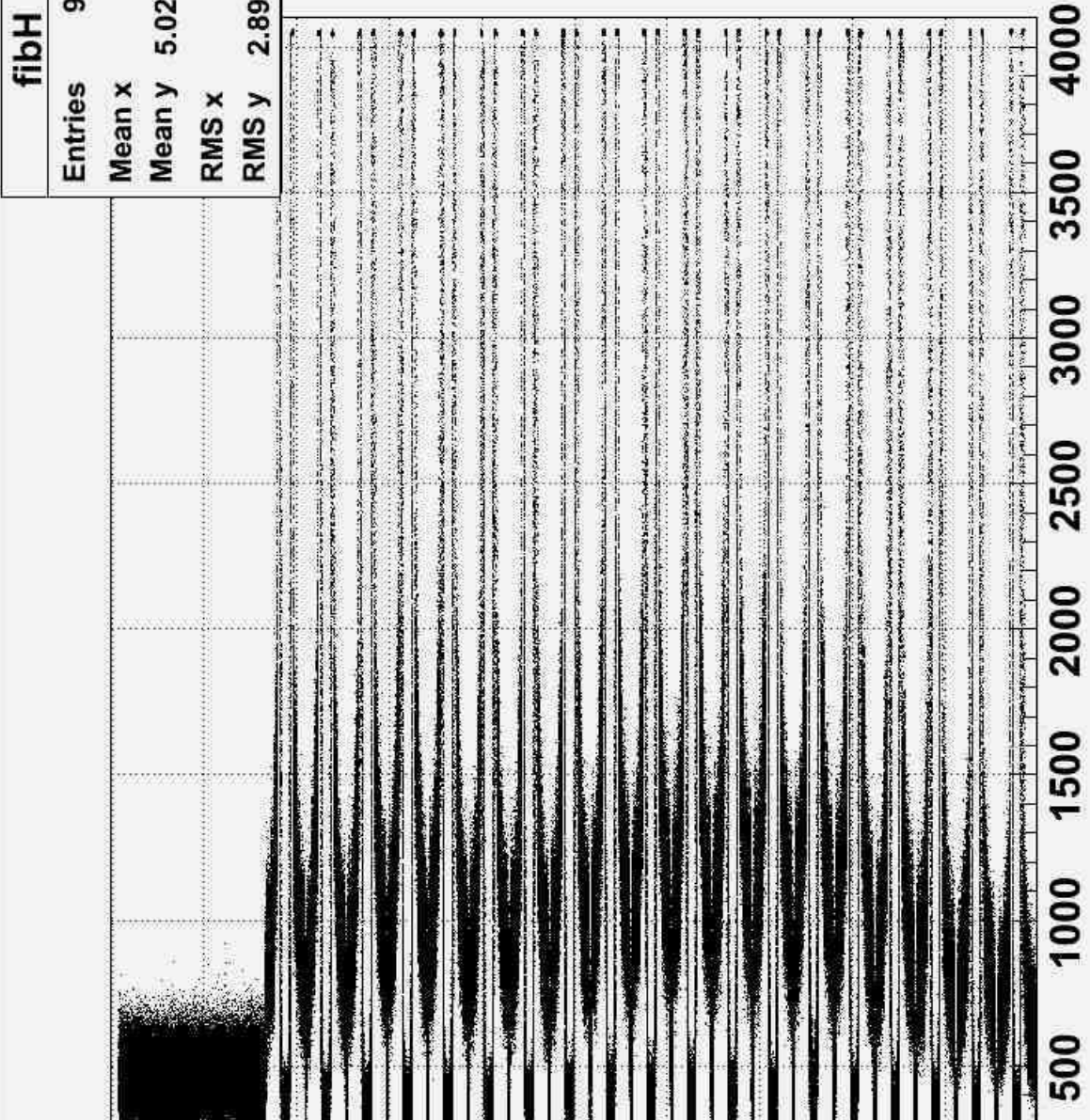
monL

Entries	964169
Mean x	1395
Mean y	5e+04
RMS x	986
RMS y	2.887e+04



fiber hi

$\times 10^3$



fibH

Entries	910566
Mean x	932.5
Mean y	5.027e+05
RMS x	694.5
RMS y	2.894e+05

fiber hi

$\times 10^3$

fibH

Entries	910566
Mean x	824.7
Mean y	5.044e+04
RMS x	625.5
RMS y	2.928e+04

