

# Simulation Studies

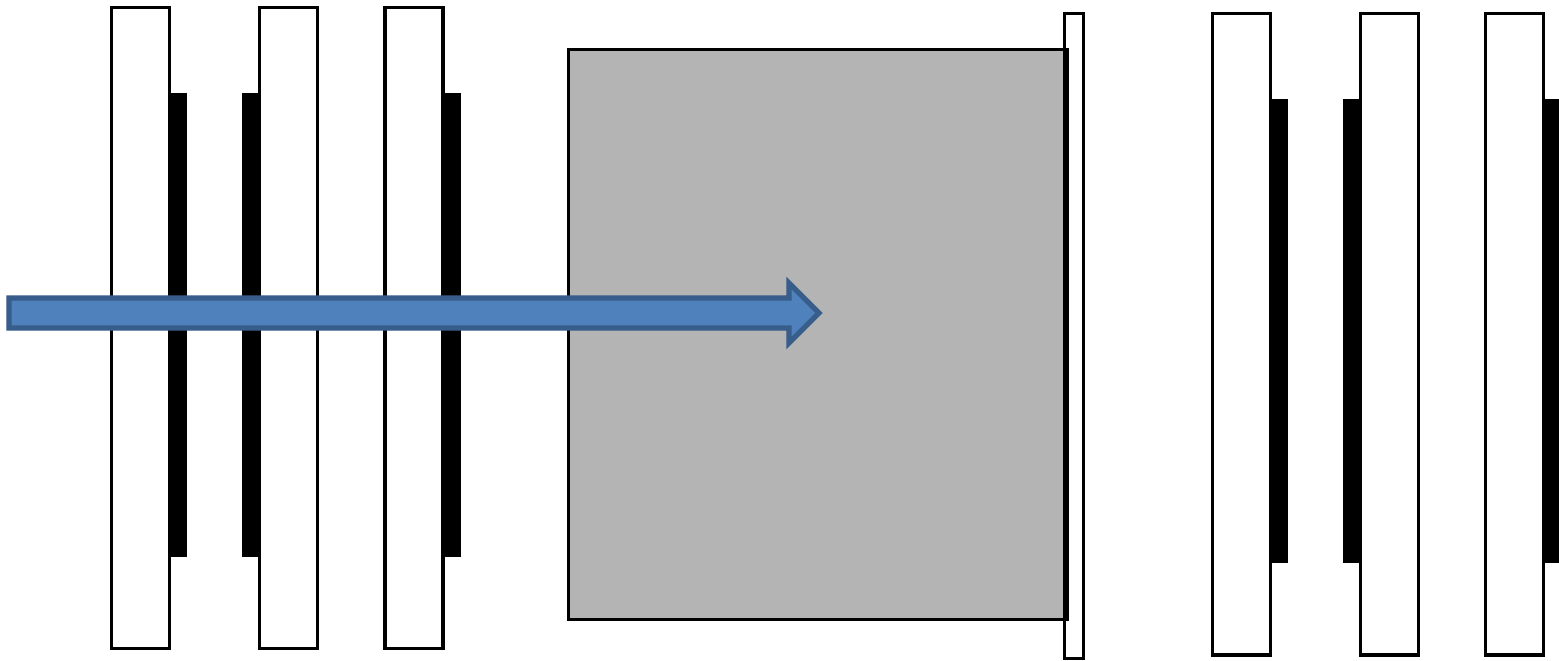
# Contents

- Modifications to code
- Simulation Setup
- Runs Completed
- Analysis

# Modifications to Code

- Changed Definitions of materials
  - PCB made from G10
  - Scintillators made from polystyrene
- Test Stack Setup
  - Added in *W*
  - Added hole to *pcb*

# Simulation Setup



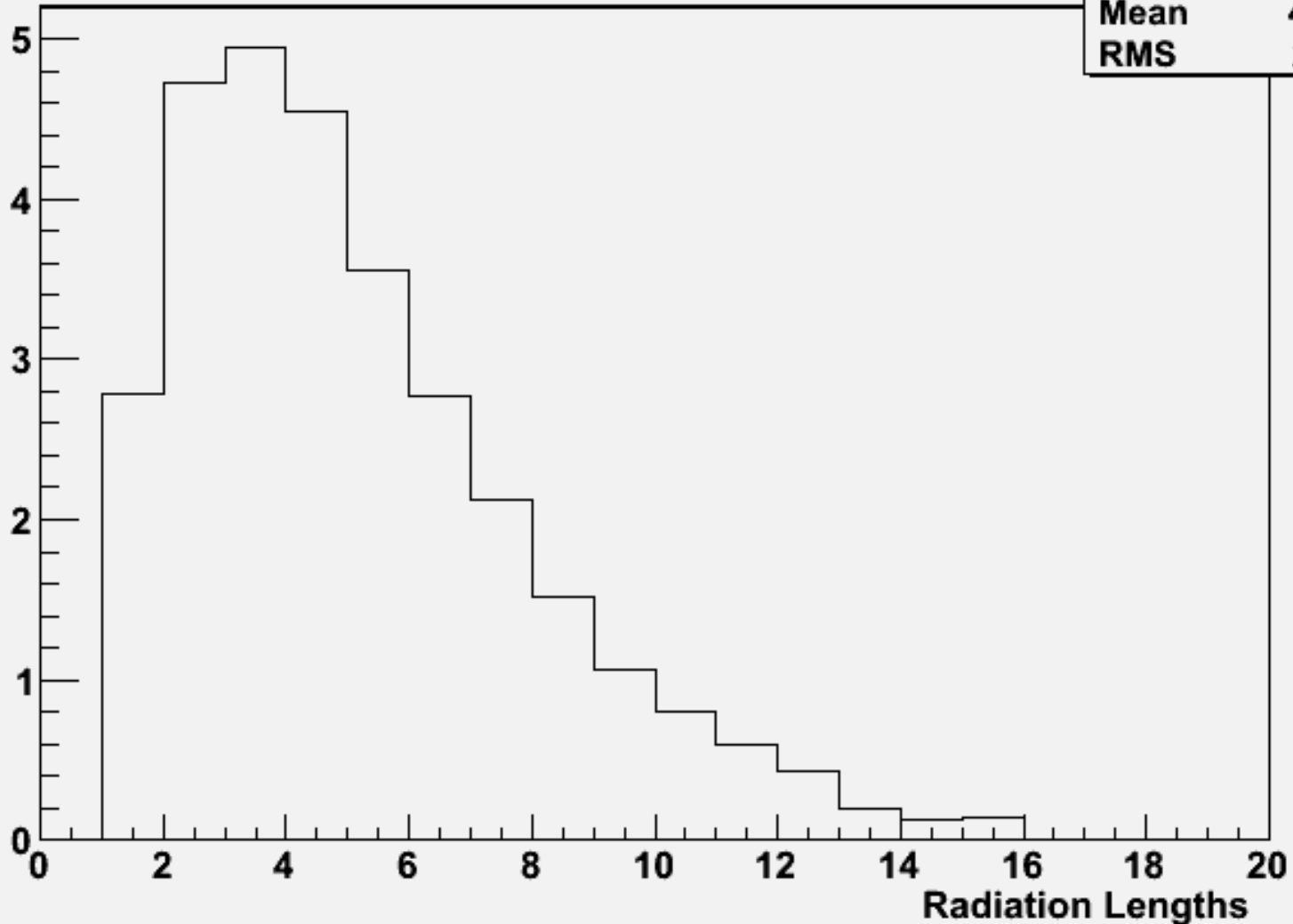
# Runs Completed

- Energies of 1-6 GeV
- Thickness of W 1-15  $X_0$
- Position of W (?)
  - Affect on Particle Density
  - Maximum amount of W

# Ratio of Sensor 2 and 3

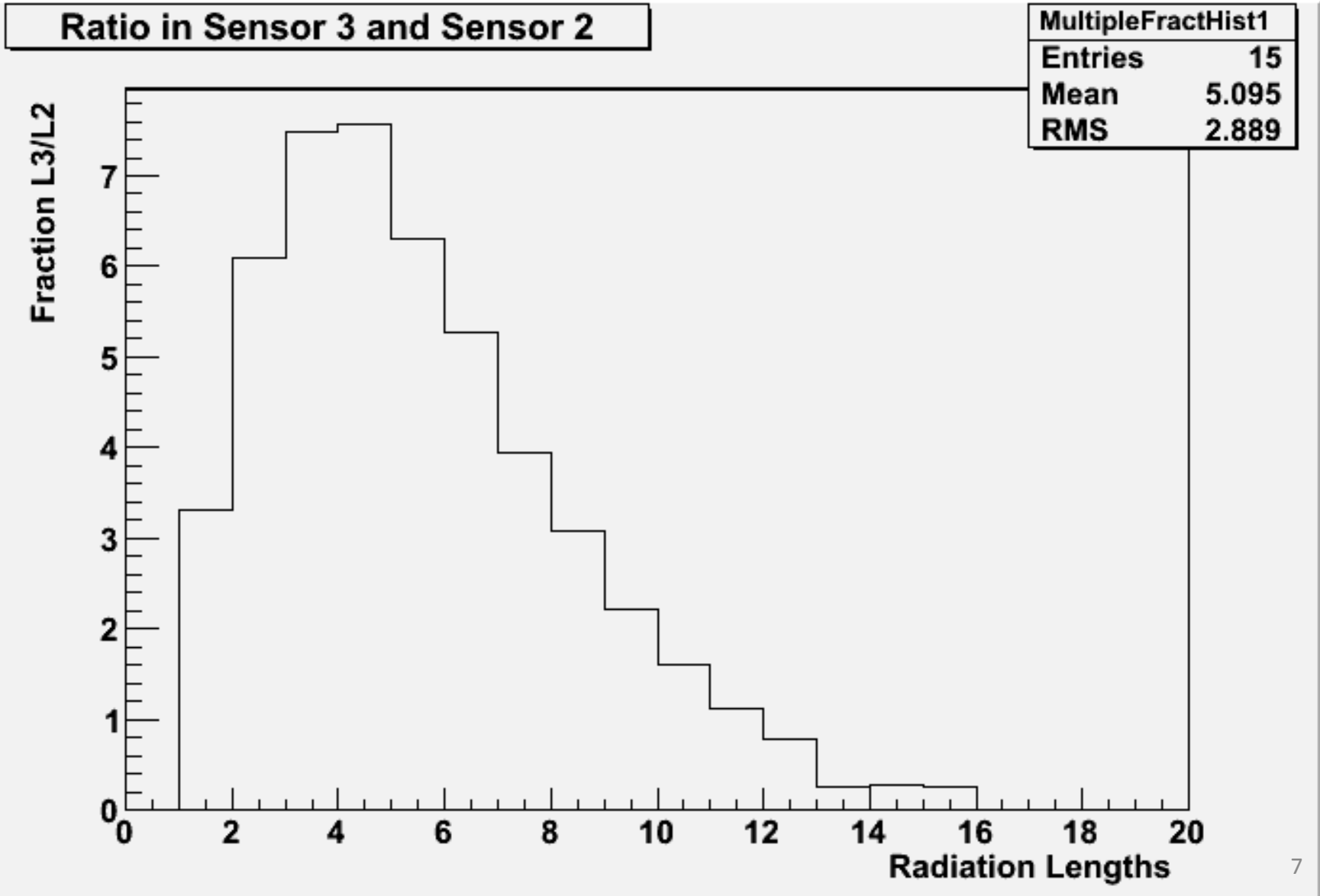
Ratio in Sensor 3 and Sensor 2

Fraction L3/L2

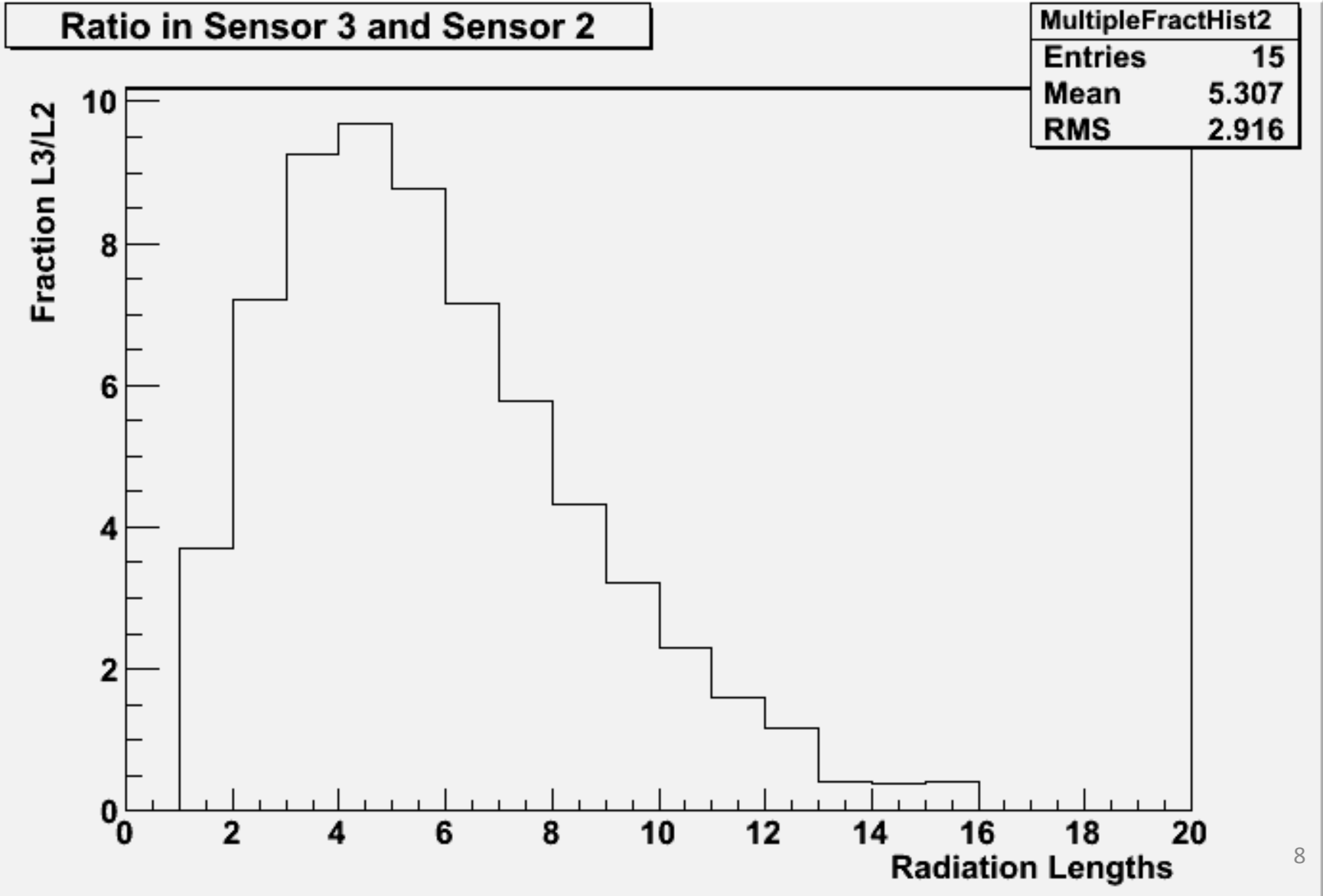


MultipleFractHist0	
Entries	15
Mean	4.695
RMS	2.871

# Ratio of Sensor 2 and 3



# Ratio of Sensor 2 and 3

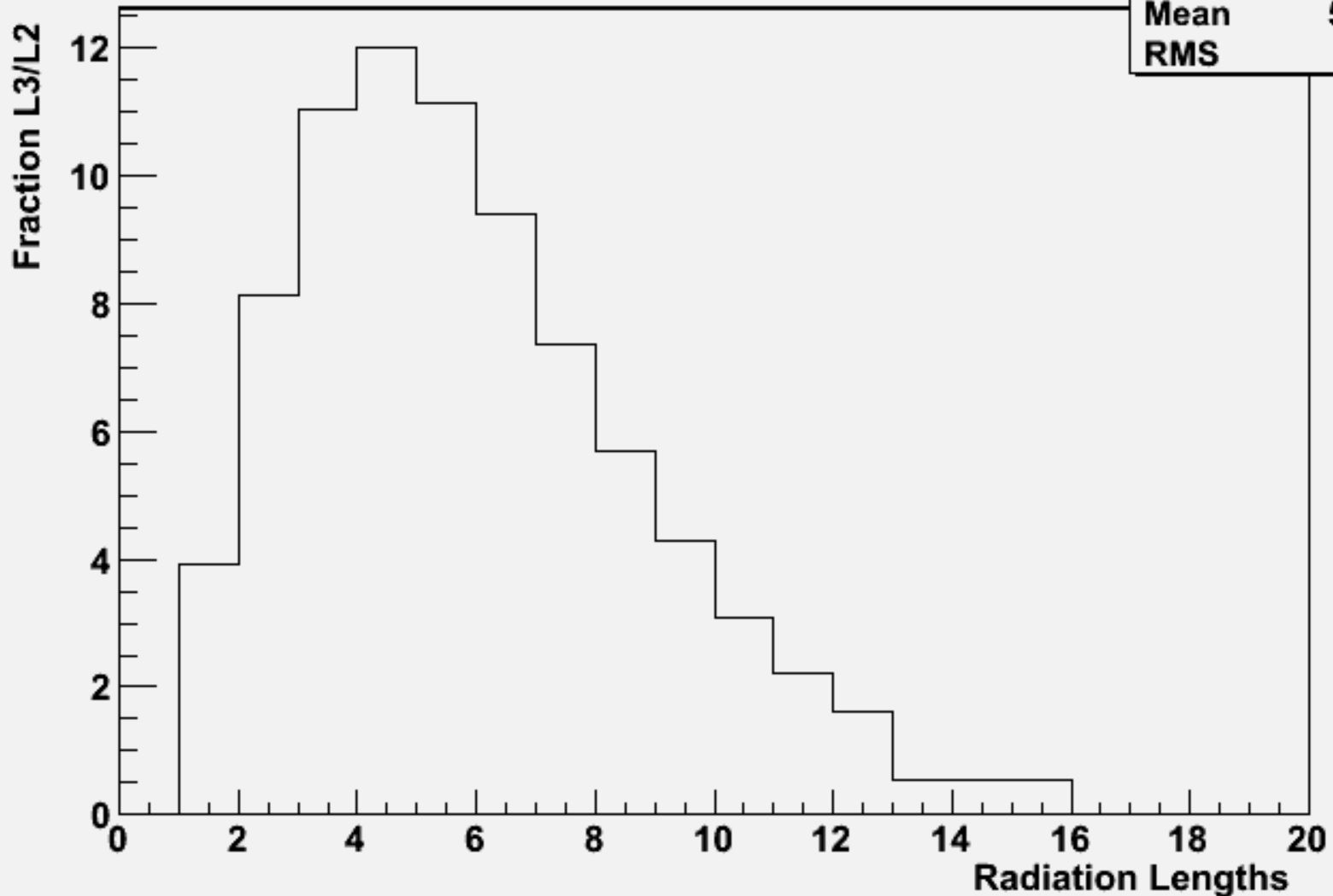




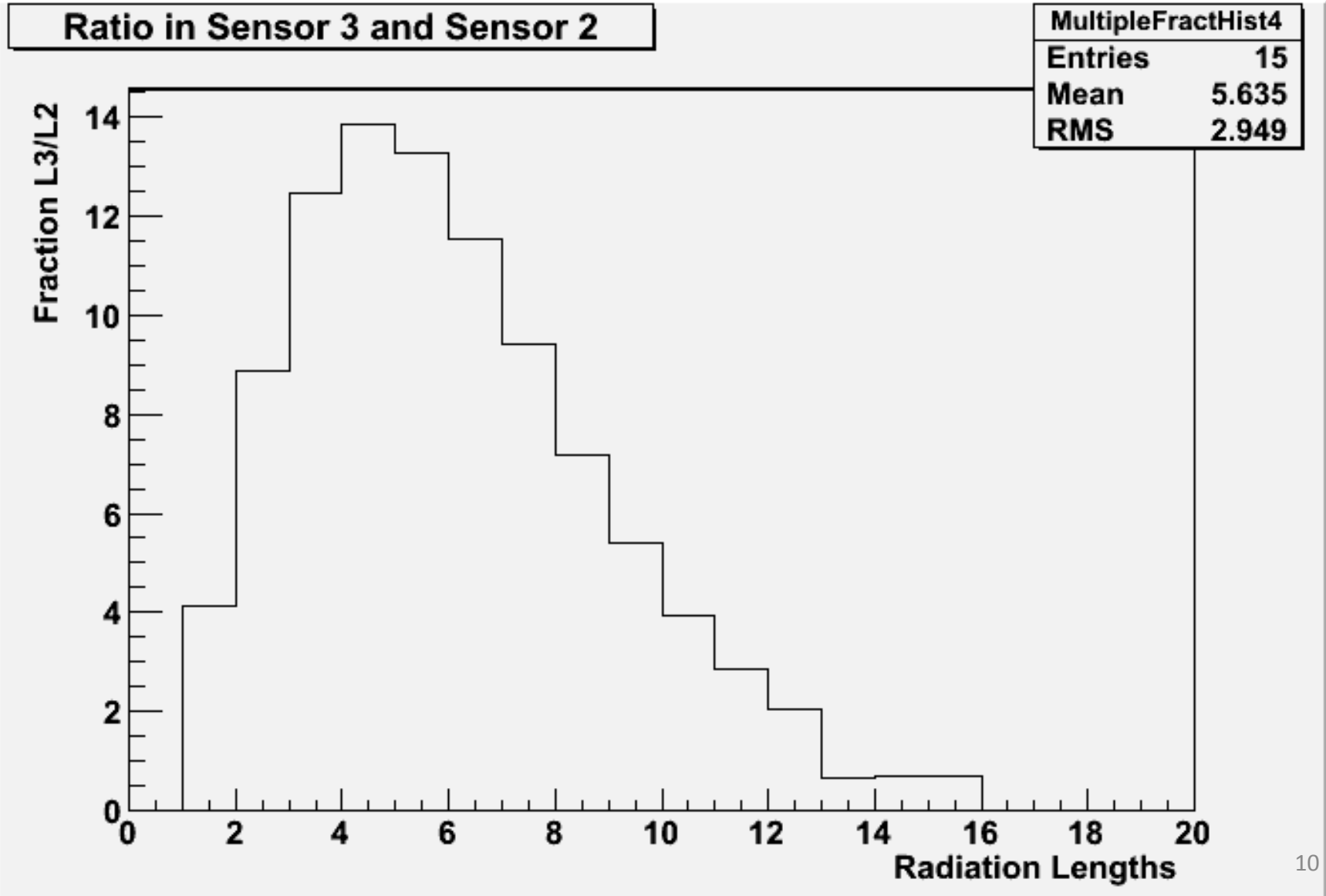
# Ratio of Sensor 2 and 3

Ratio in Sensor 3 and Sensor 2

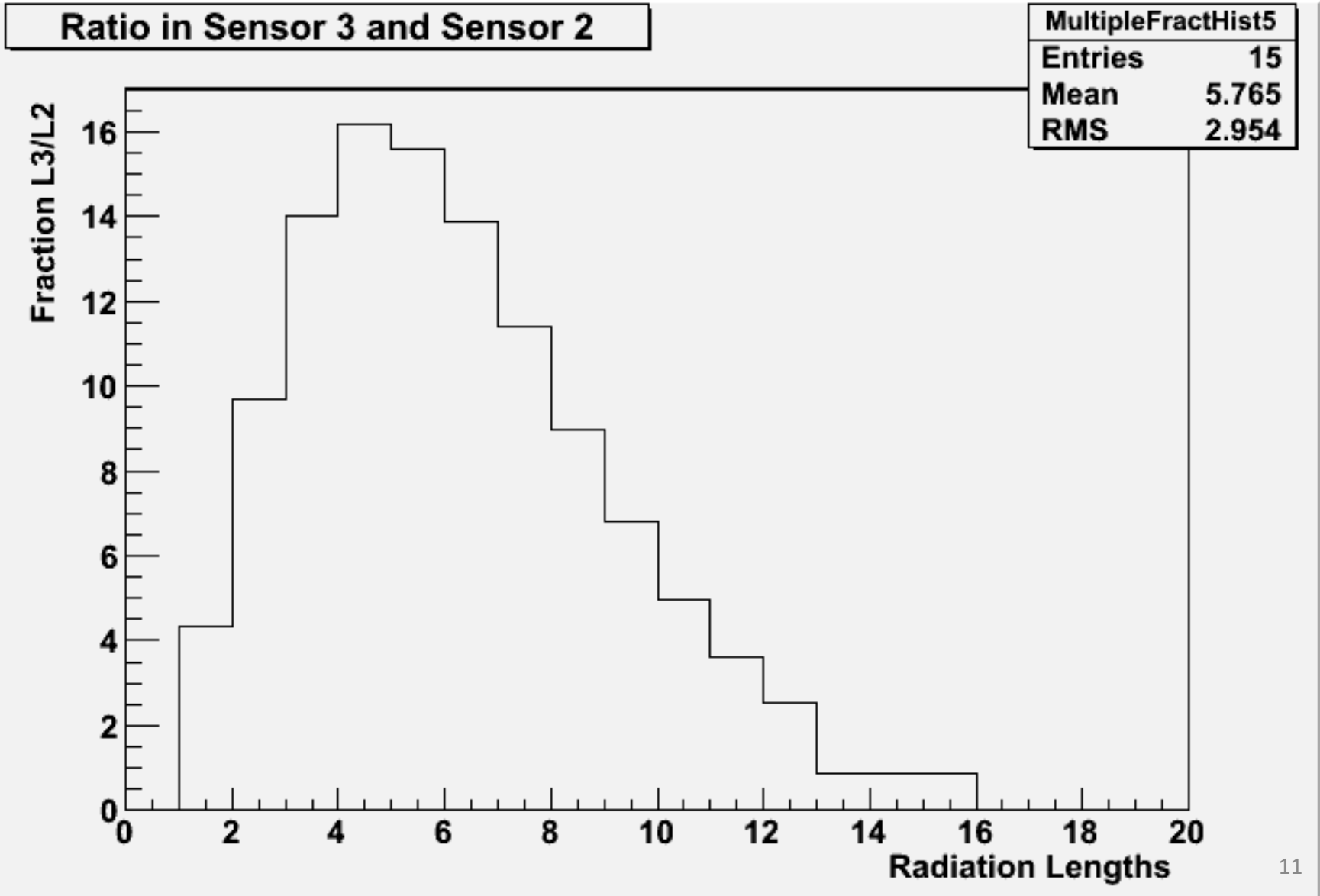
MultipleFractHist3	
Entries	15
Mean	5.473
RMS	2.93



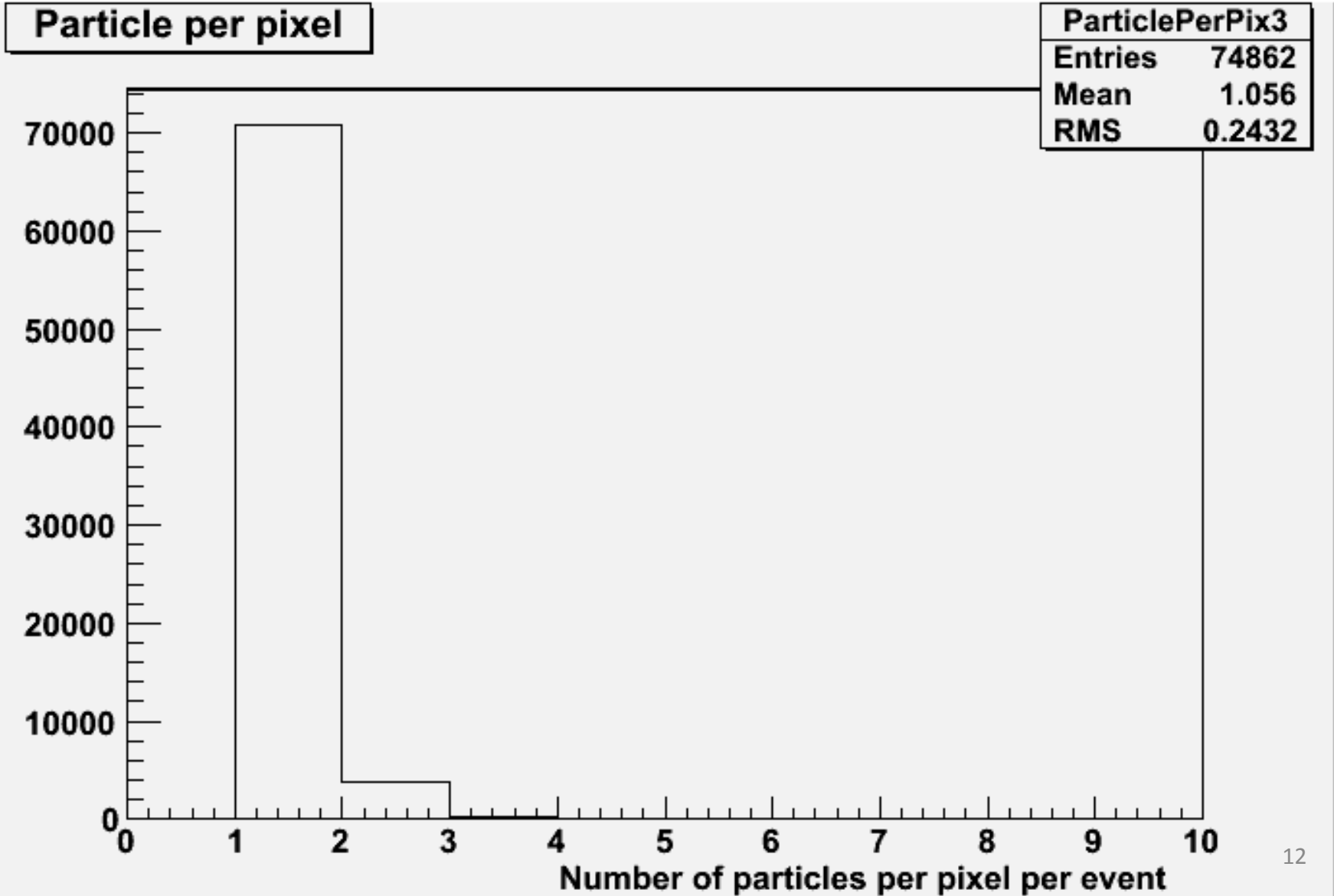
# Ratio of Sensor 2 and 3



# Ratio of Sensor 2 and 3



# Particle Density



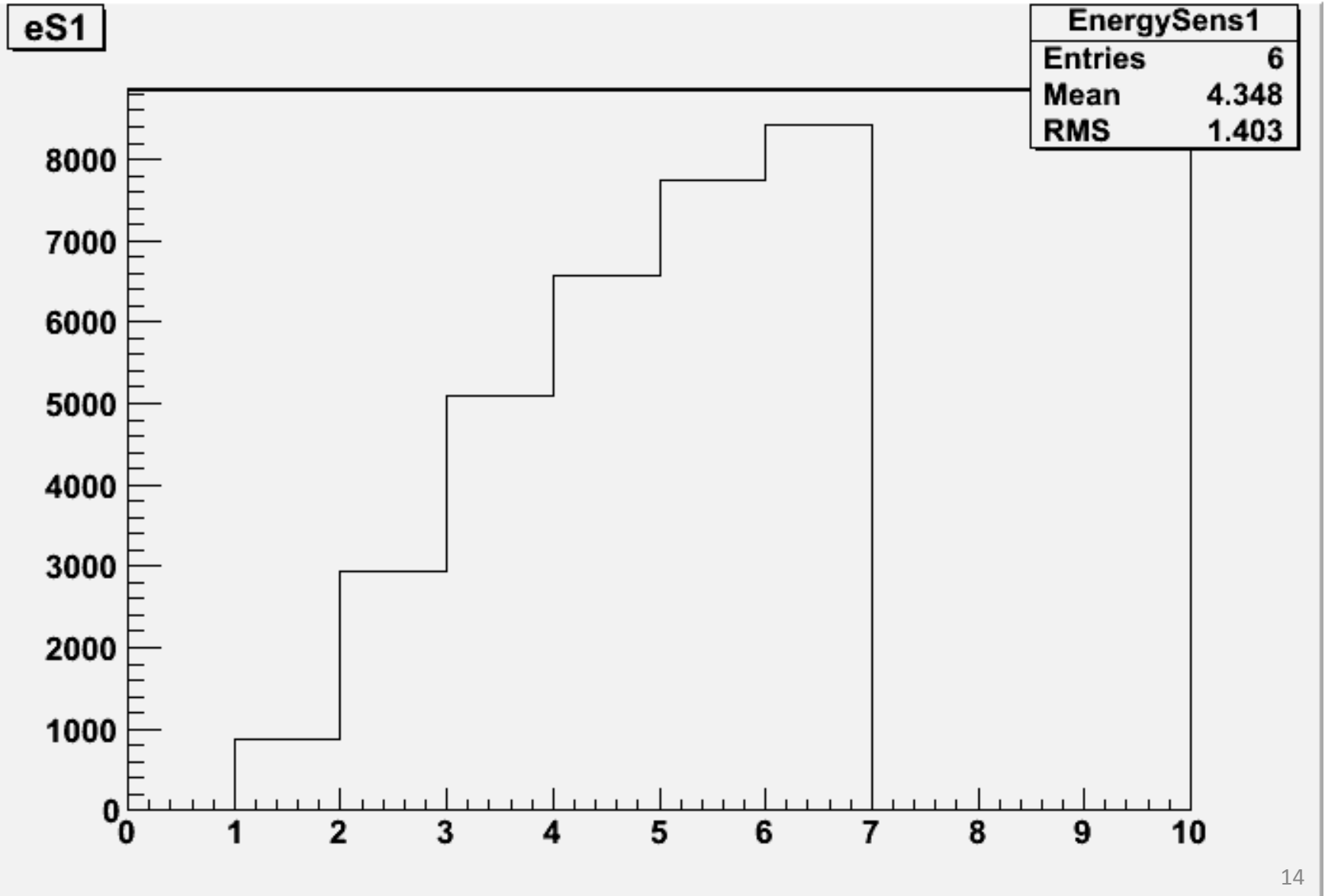
# Effect of Energy on Sensor 1

- zBeamStart = 10000 mm
- Using beam spread of

5	0	0	0	0
0	5	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

- Looking at the number of particles which reach sensor 1

# Effect of Energy on Sensor 1



# Questions?