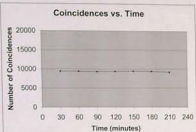
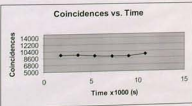
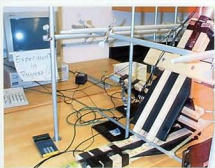


MUON TRIANGLE EXPERIMENT



Data Table for Two Paddle Experiment

Time (minutes)	Coincidences
30	9397
60	9394
90	9289
120	9338
150	9431
180	9369
210	9176



Data Table for Triangular Setup

Time Intervals x 1000 (s)	Coincidences
1.8	9509
3.6	9474
5.4	9178
7.2	9680
9	9024
10.8	9652
12.6	9341

Materials

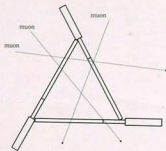
- 3 Scintillating Glass Paddles
- Aluminum Rod Grid
- Prongled breaker clamps
- Packaging tape
- Ring stands
- A computer
- Muon data software
- Photon Tube
- Photon Collector

Procedure

- Set up apparatus as shown in the diagram.
- Using the aluminum tubing support grid, set up the first paddle parallel to but not touching the table.
- Set up the second paddle as the second side of the triangle at a 60° angle, making sure there are no gaps between the sides.
- Set up the third paddle to complete the equilateral triangle, again making sure there are no gaps.
- Connect the paddles to a computer running muon detection program.
- Collect data determining the number of muons per unit time.
- Analyze the data and compare the results to those gathered from the two parallel paddles experiment.

Explanation:

The triangle was designed to allow for the detection of muons at all angles within a single plane. This data was compared with data collected by the two parallel paddle experiment.



Hypothesis

The number of muons detected within a half hour interval will be greater for the triangular setup than the two paddle setup.

Conclusion

The hypothesis, that the number of muons detected within a half hour interval will be greater for the triangular setup, was based on the fact that the muons could be collected from all angles. However, contrary to this hypothesis, the data shows that the addition of more angles from which muons can collect did not significantly impact the number of collisions per 30 minute interval.