

Cosmic Ray Detector Lab 3 – Detector Angle

Name _____ Period _____ Date _____

Objective: Observe changes in the muon count as the number of the detector paddles change

Equipment: FermiLab Cosmic Ray Detector with four paddles

Computer with Hyper Terminal software or equivalent

Purdue Cosmic Ray Detector Program (for Hyper Terminal)

Auto-ranging Voltmeter

Procedure: Set all the potentiometers on the Power Distribution Box at the plateau values from Lab 1. Plug in and power up the Cosmic Ray Detector.

Set up the Purdue Cosmic Ray Detector Program so that:

Test Time is 5 minutes.

All boxes of the detector paddles are filled with a check mark.

Coincidence Level is 3.

Set the angle of the paddles at 15 degree

Click the green “Go” button on the program.

Record your count in the data table.

Repeat the procedure for angles of 30, 45, 60, 75 and 90 degrees.

Angle	15	30	45	60	75	90
Count						