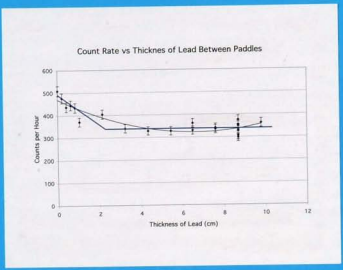
Count Rate vs. Thickness of Lead Between Paddles



This experiment involving Muons was to determine the effect of lead obstructing the sensors, on the number of muons that pass through them. We used two sensory paddles, and found the number of muons per hour that passed through them with various thicknesses of lead (refer to diagram). We expected there to be a general decrease in the number of muons as we increased the thickness of lead. We actually noticed from the graph of our data that the number of muons reaching both sensors decreased to a certain thickness, at which point it remained fairly constant. The curve fit we received hints slightly toward an increase in the muon count after a certain thickness is reached, but the general trend supports a steady count above about 2.2 cm of lead (shown by the blue line). What we did notice is that the counts per hour for 3cm and for 10cm is almost identical. Also, one could see that our hypothesized results are generally within the reasonable error given at each point.