

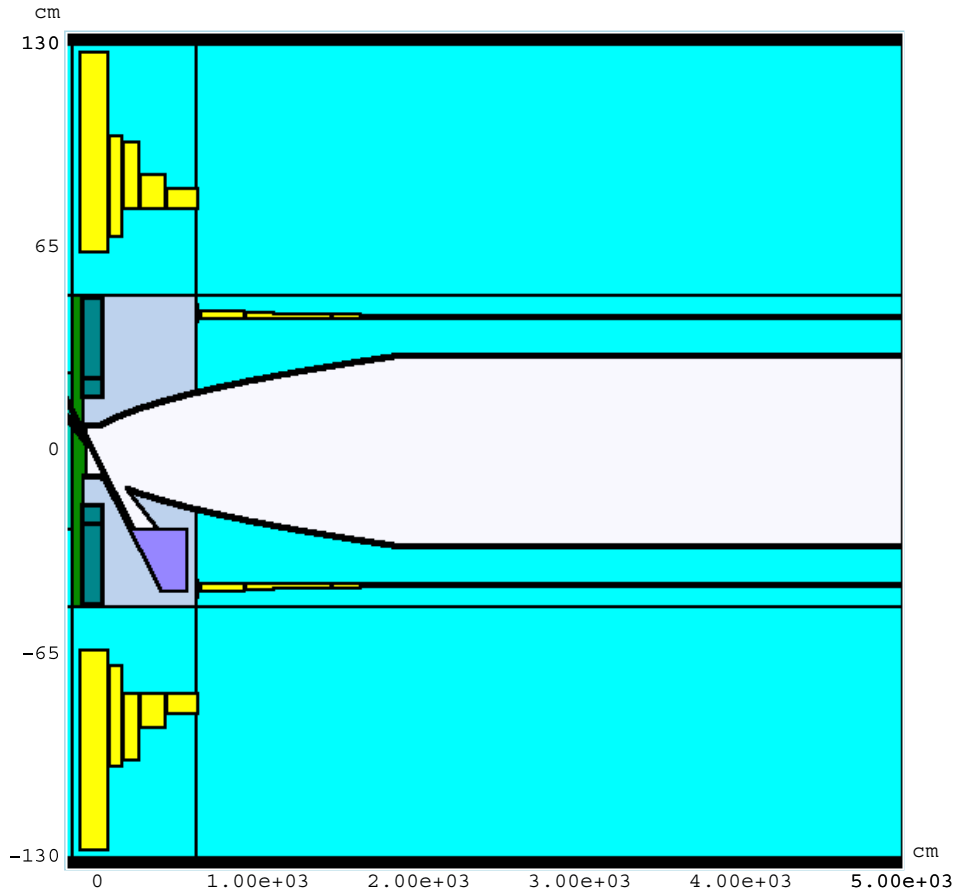
Pion Production with MARS14

ISS Workshop

BNL

December 15, 2005

The Study2 Target System

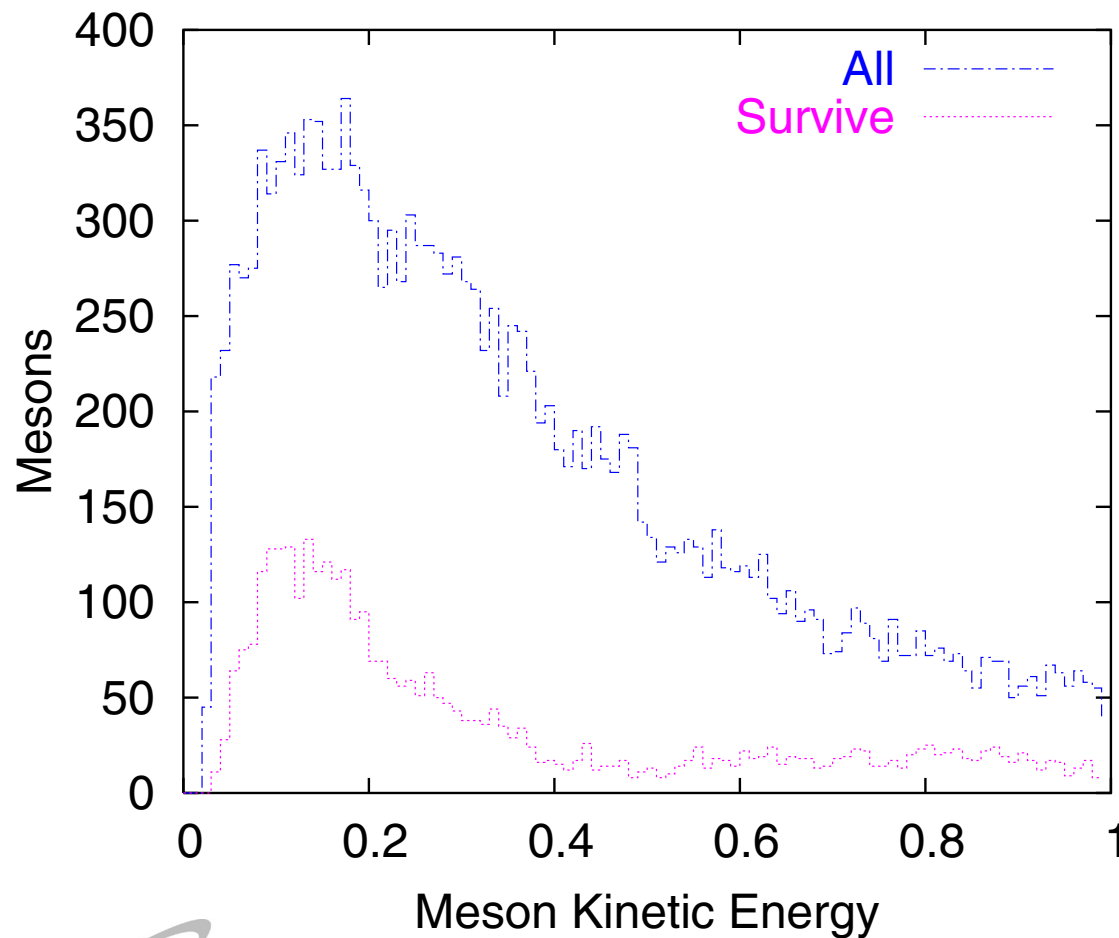


Count all the pions and muons that cross the transverse plane at $z=50\text{m}$.

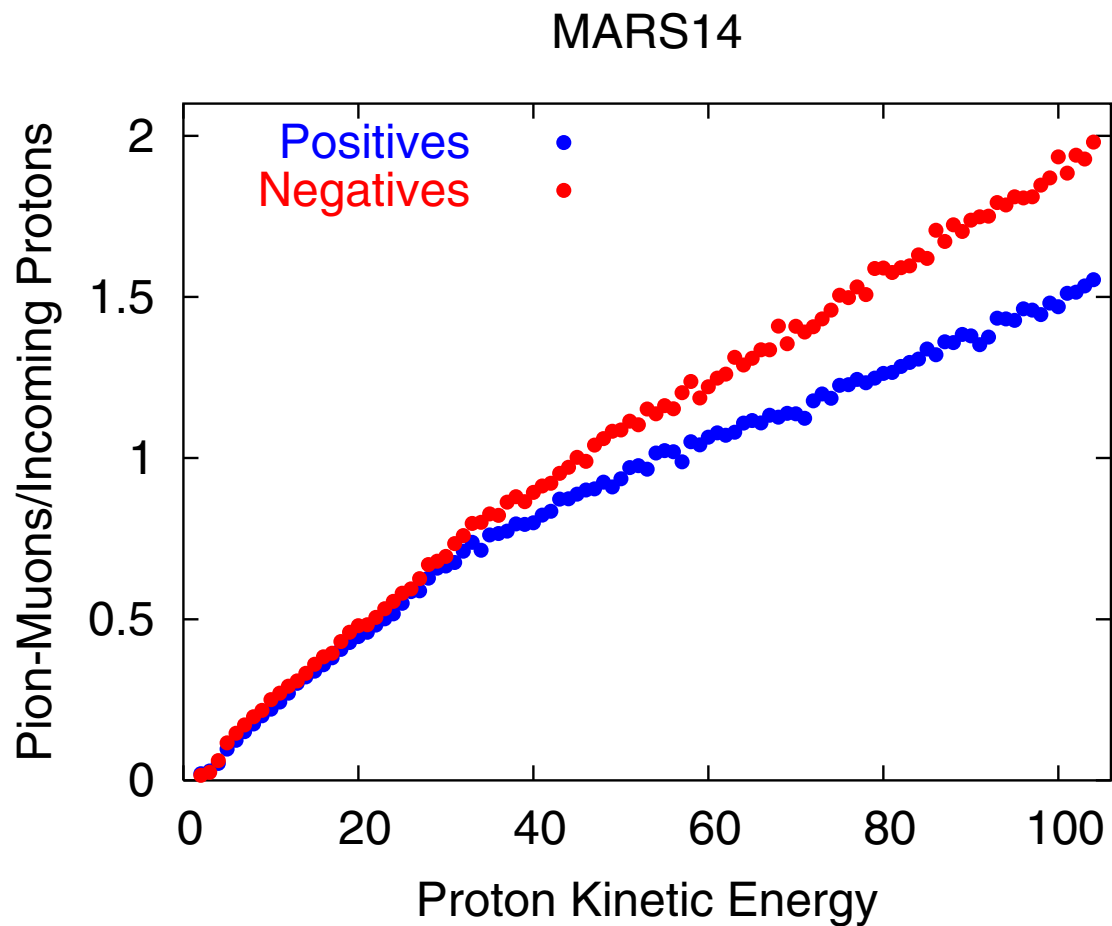
For this analysis we select all pions and muons with $KE < 0.35 \text{ GeV}$.



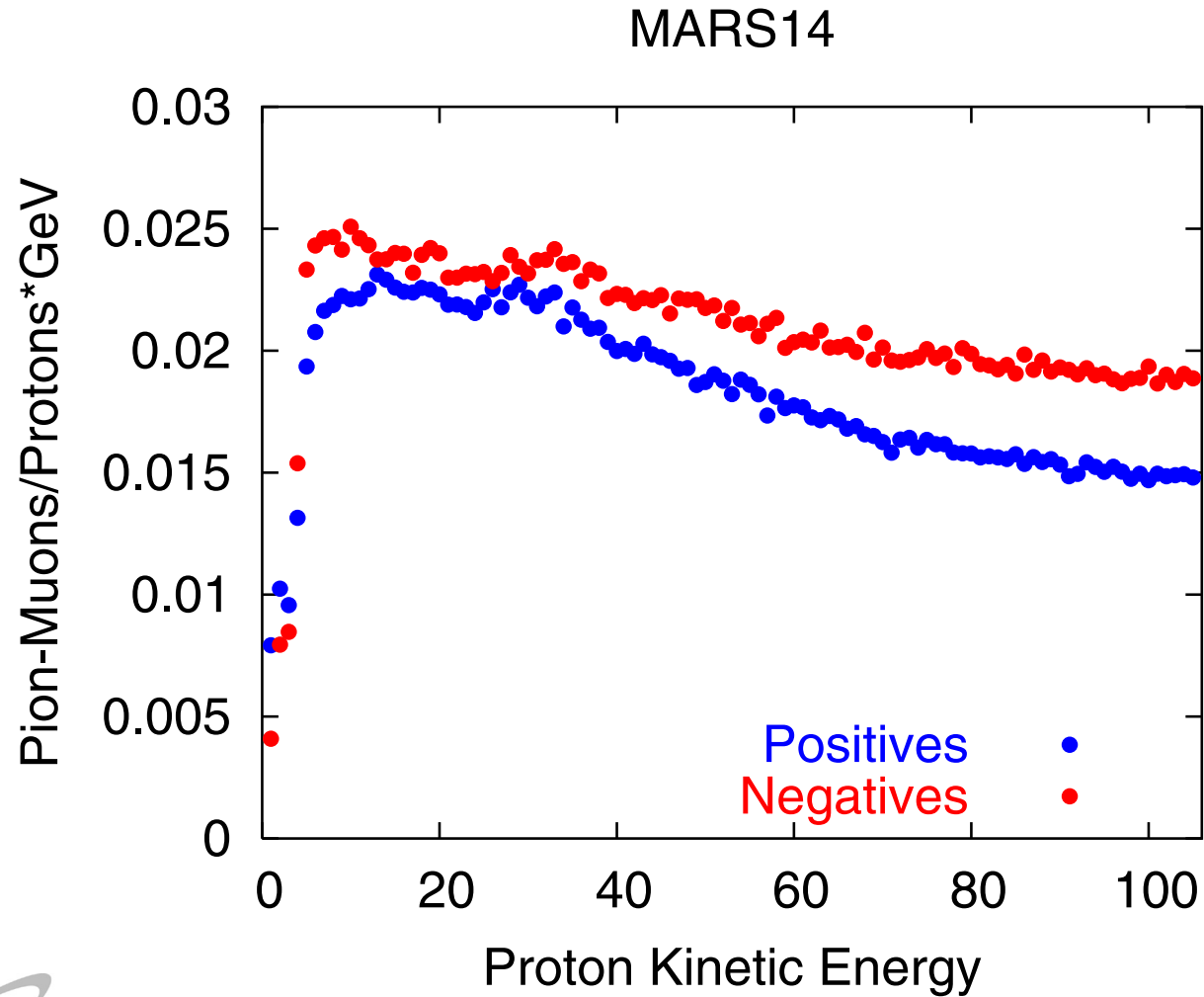
Meson Post-cooling Survival



Meson KE < 350 MeV at 50m

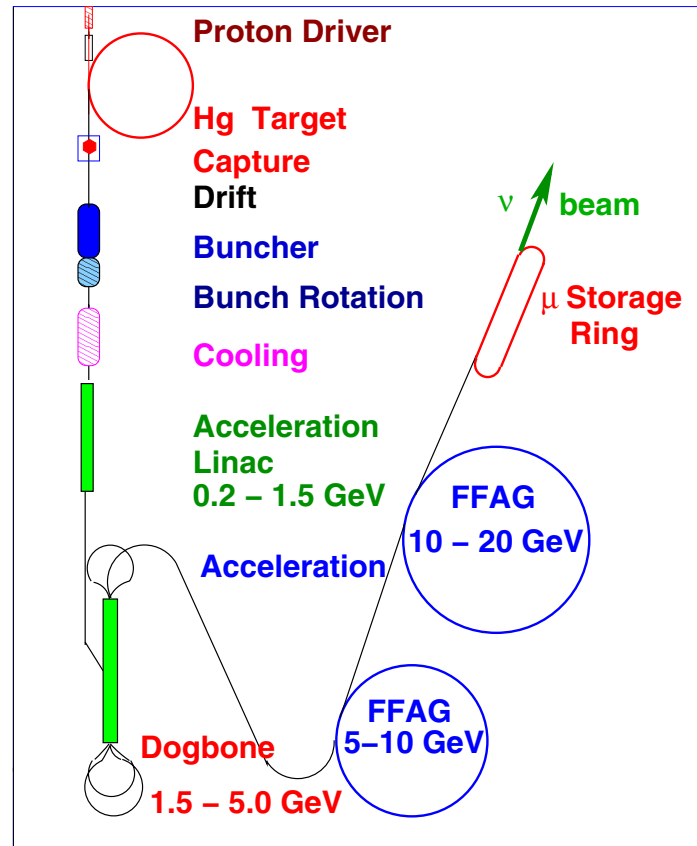


Meson KE < 350 MeV at 50m

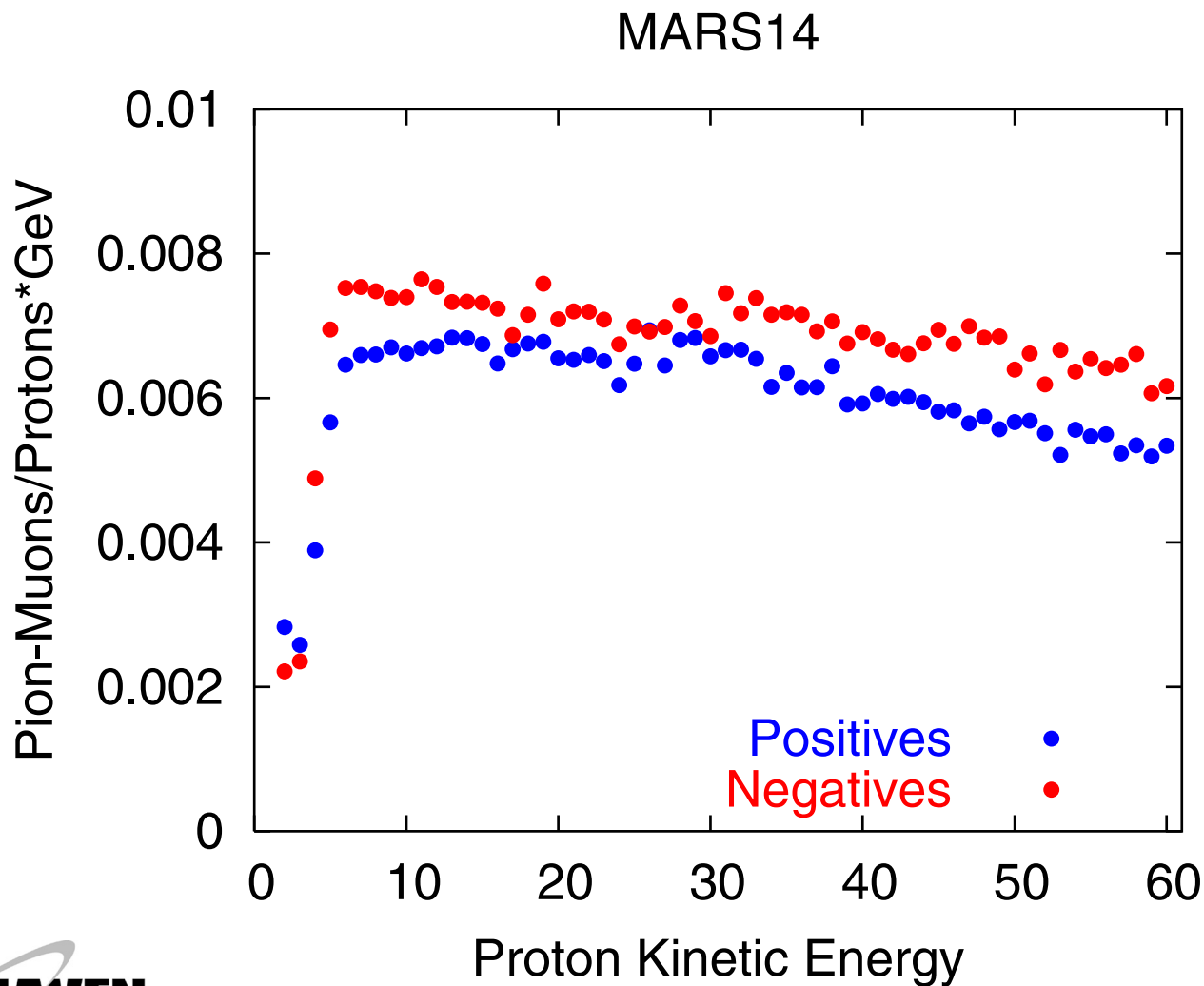


Process mesons through Cooling

Count mesons within
 acceptance of 30π mm



Post-cooling 30π Acceptance



Summary

For Negatives the peak occurs for

$$6 \text{ GeV} < \text{Proton KE} < 11 \text{ GeV}$$

For Positives the peak occurs for

$$9 \text{ GeV} < \text{Proton KE} < 19 \text{ GeV}$$