

# Low mass $K^+K^-\pi^0$

# Update

- Updated my versin of AmpTools to 0.14.5
- Sent code and data to Tyler P. Viducic

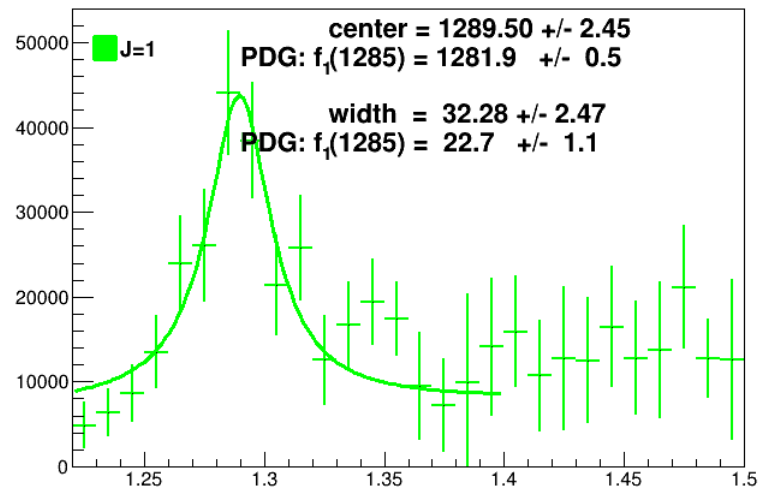
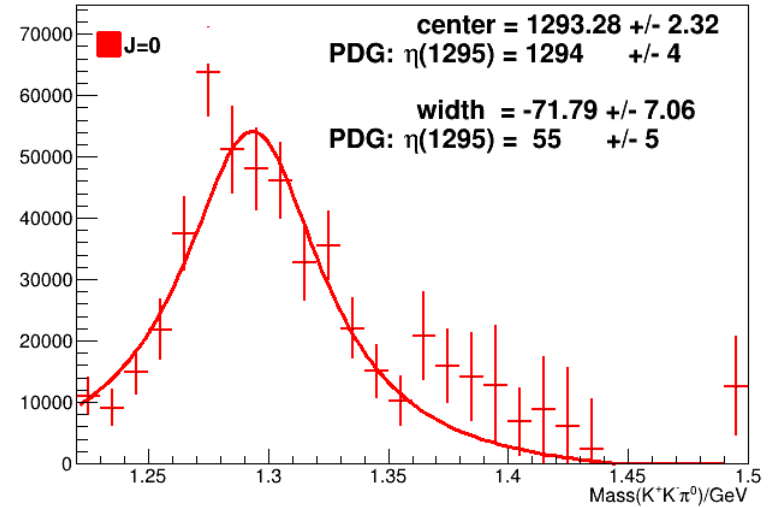
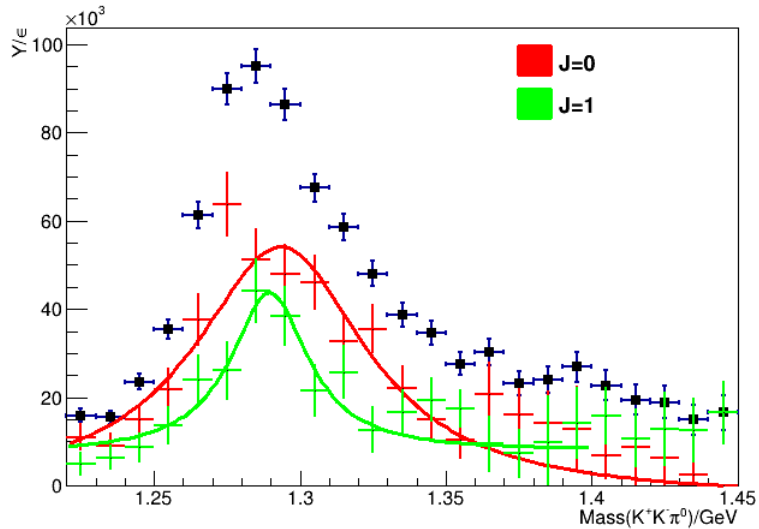
# Choice of included amplitudes

Definitions:

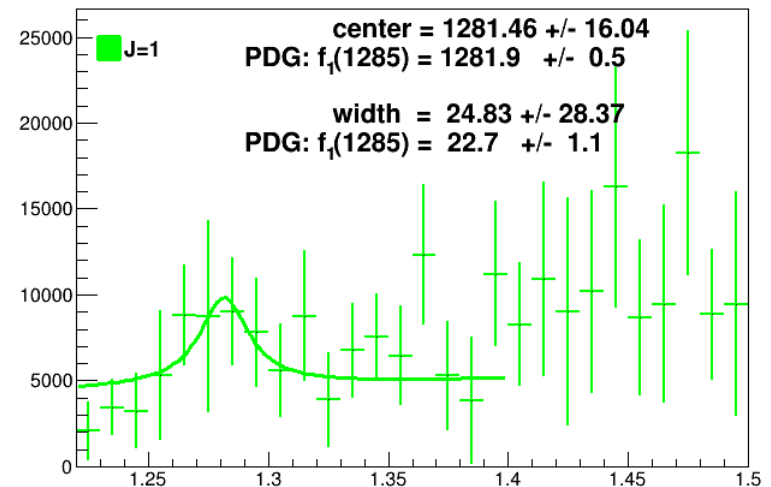
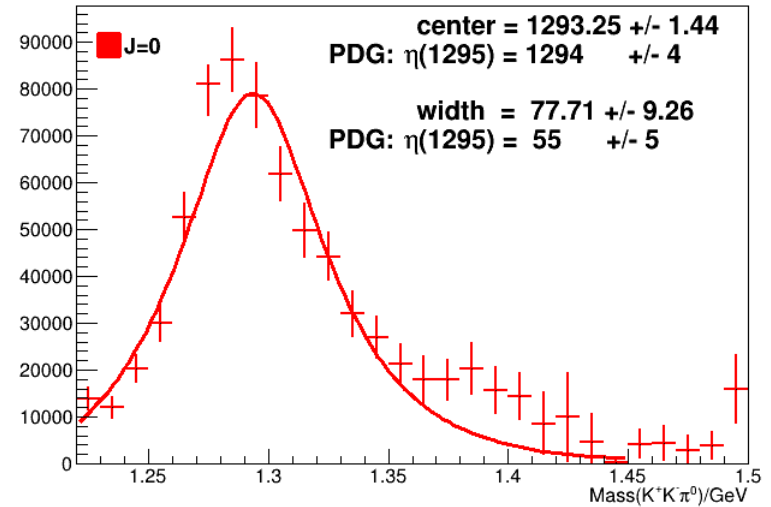
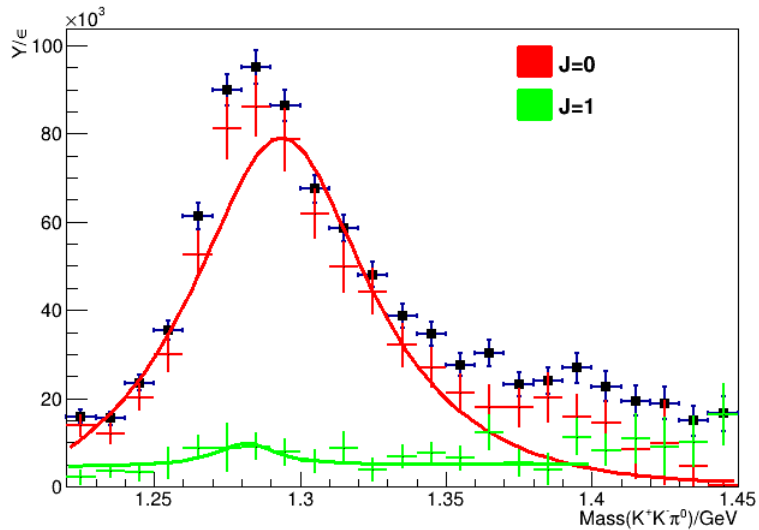
- $l$  is orbital angular momentum quantum number for meson  $\rightarrow$  Isobar  $\pi$
- Isobar is  $K^+K^-$  and  $s$  is angular momentum quantum number for the isobar
- $J_0 \rightarrow a_0\pi: j, l, s = (0, 0, 0)$
- $J_1 \rightarrow a_0\pi: j, l, s = (1, 1, 0)$  coherently adding  $J_z = -1, 0, +1$
- $J_0 \rightarrow KK\pi: j, l, s = (0, 1, 1)$  ignoring  $j, l, s = (0, 0, 0)$  for now
- $J_1 \rightarrow KK\pi: j, l, s = (1, 1, 0), (1, 0, 1)$  coherently added along with each  $J_z = -1, 0, +1$

NOTE: Using brackets to denote coherent addition. For example,  $[J_0 \rightarrow a_0\pi, J_1 \rightarrow a_0\pi]$  means coherent addition of the  $J_0$  and  $J_1$  states, whereas  $J_0 \rightarrow a_0\pi, J_1 \rightarrow a_0\pi$  would represent an incoherent addition

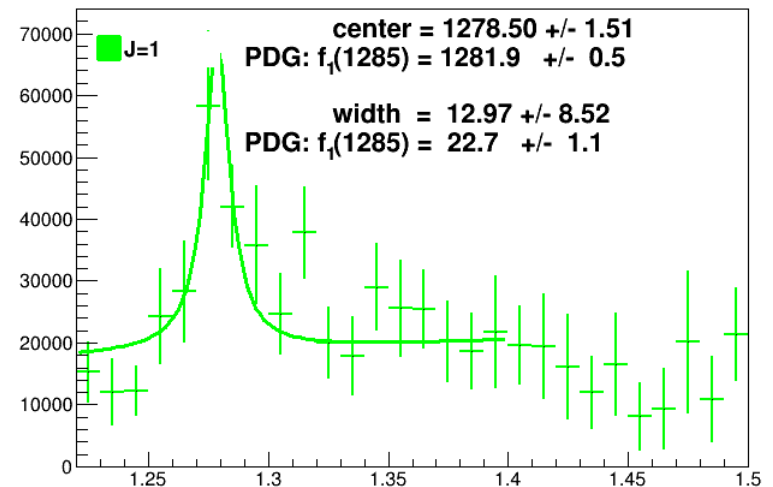
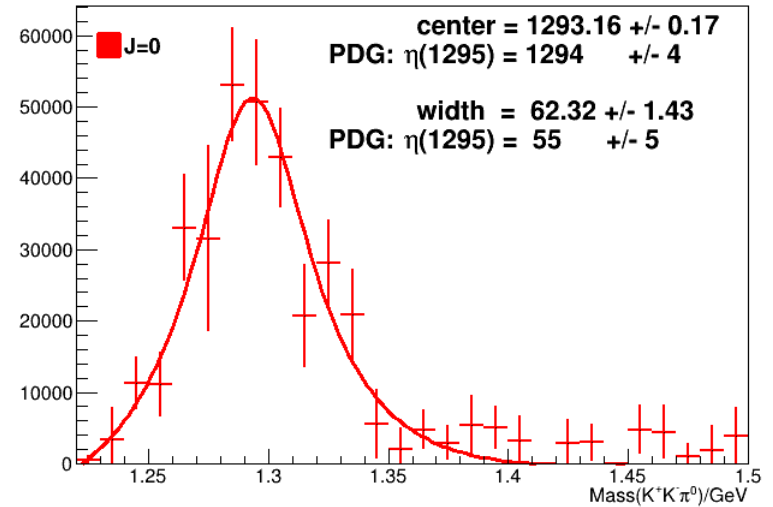
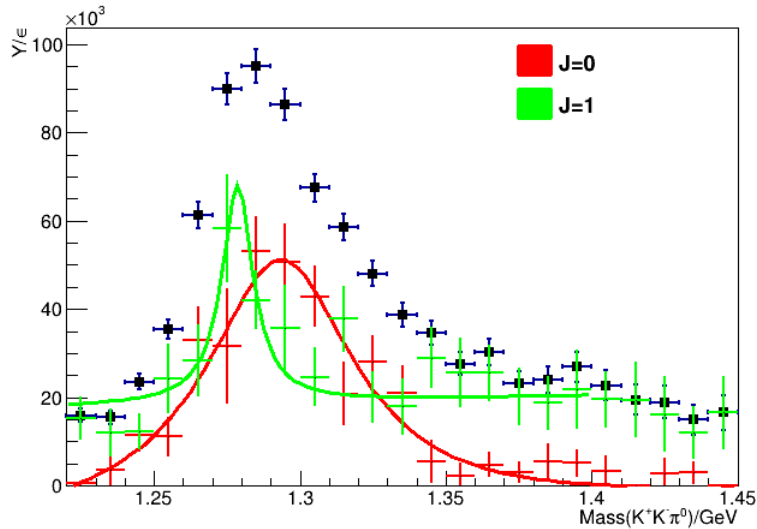
# Amplitudes: $J_0 \rightarrow a_0 \pi$ , $J_1 \rightarrow a_0 \pi$



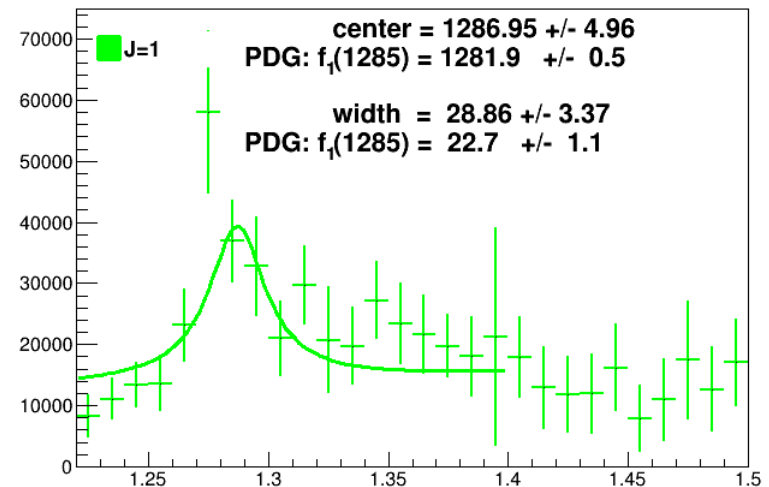
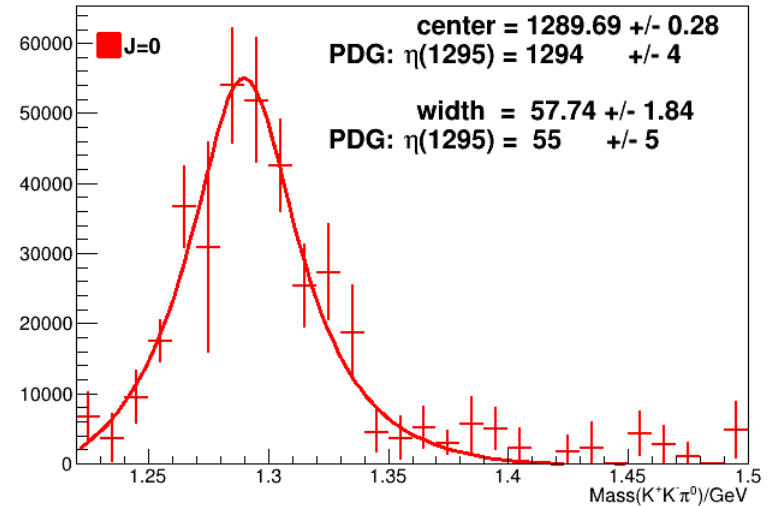
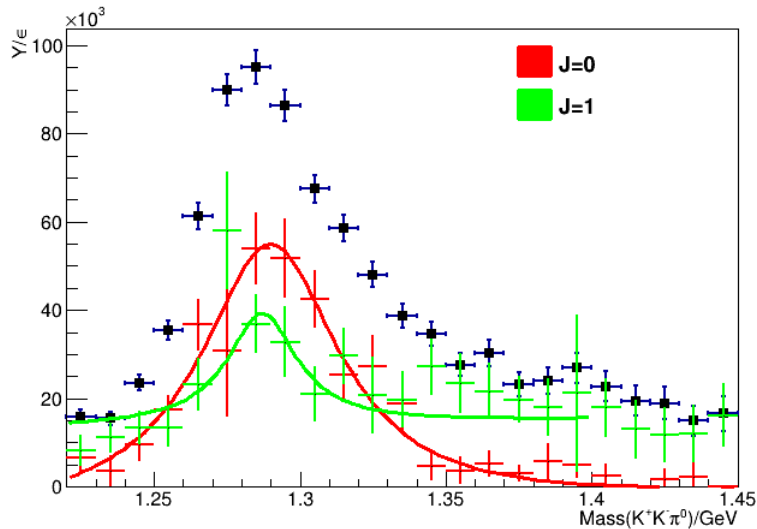
# Amplitudes: [ $J_0 \rightarrow a_0 \pi$ , $J_1 \rightarrow a_0 \pi$ ]



# Amplitudes: $[J_0 \rightarrow a_0 \pi, J_1 \rightarrow a_0 \pi], J_1 \rightarrow KK\pi$



# Amplitudes: $[J_0 \rightarrow a_0\pi, J_1 \rightarrow a_0\pi],$ $[J_1 \rightarrow KK\pi, J_0 \rightarrow KK\pi]$



# Title

