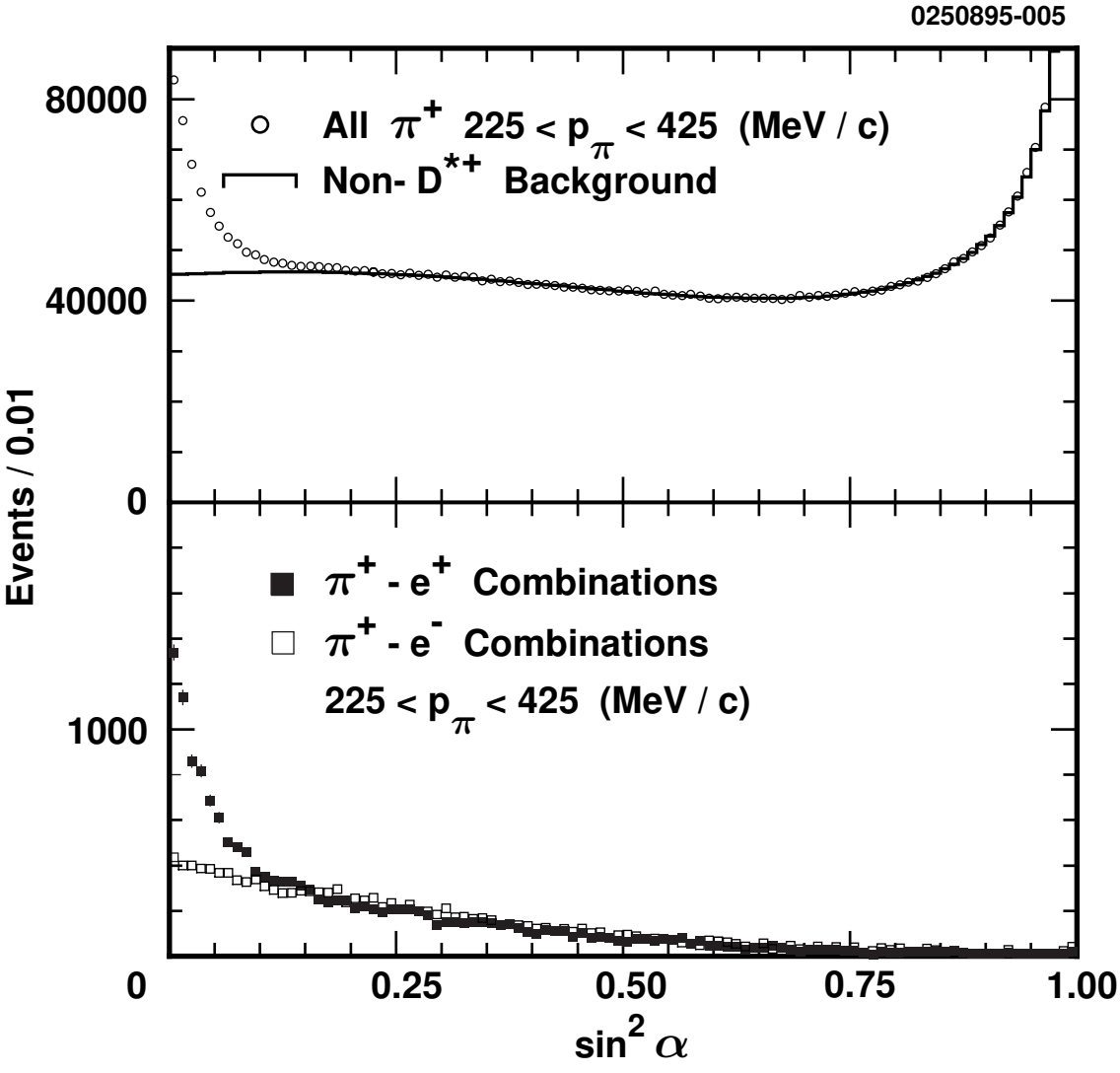


Figure 1: The inclusive $\sin^2\alpha$ distributions for candidate pions (circles) and the derived non-$D^{*+}$ background (solid line) in the top plot. Requiring an electron near the pion with the same (opposite) sign results in the solid (open) squares in the bottom plot.

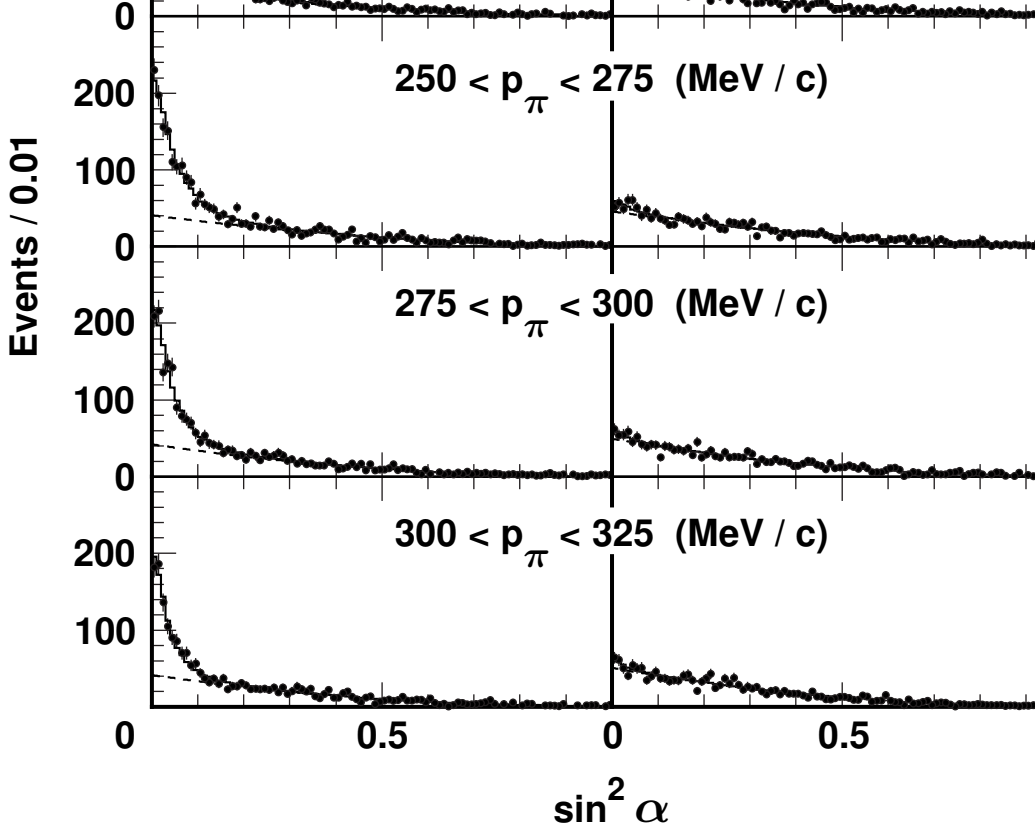


Figure 2: The $\sin^2\alpha$ distribution for pions with momentum between 225 and 325 M identified electron within $\cos\theta_{\pi\text{-}e} > 0.8$. Events with the electron and pion having t (right sign) are plotted on the left side, the opposite sign events (wrong sign) are plo right side. The points represent the data and the histogram is the result of the fit. T represents the random pion-true electron background and is modeled by a second or polynomial.

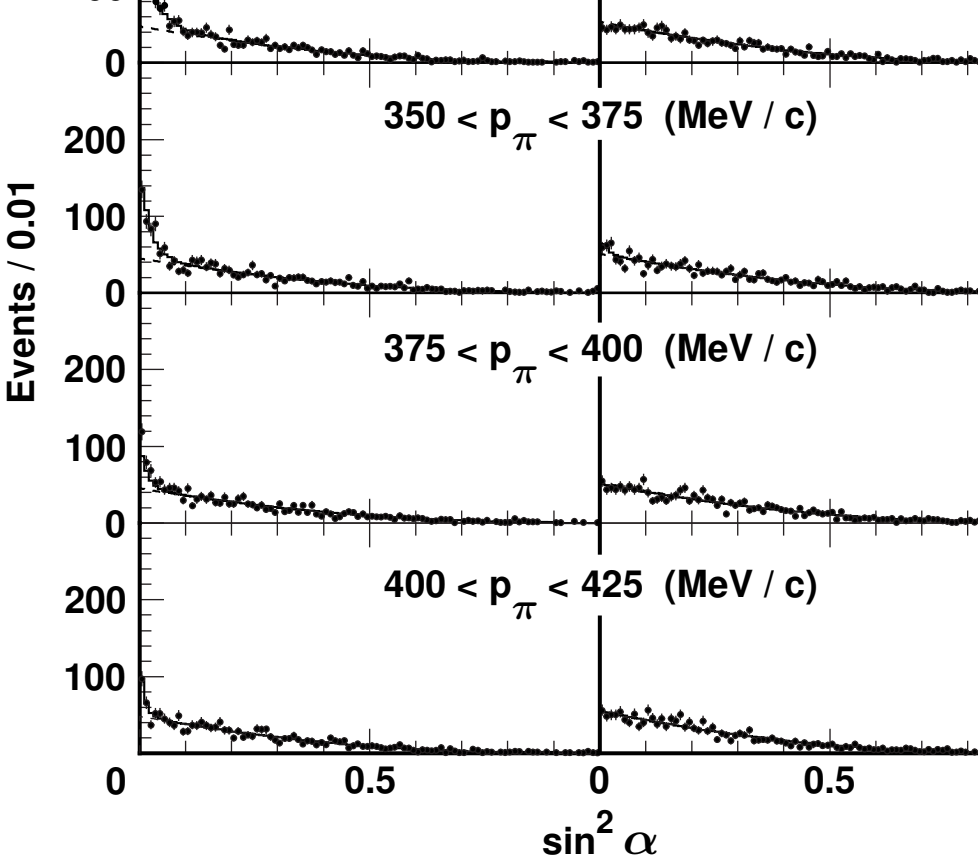


Figure 3: The $\sin^2\alpha$ distribution for pions with momentum between 325 and 425 M
identified electron within $\cos\theta_{\pi\text{-}e} > 0.8$. Events with the electron and pion having
(right sign) are plotted on the left side, the opposite sign events (wrong sign) are pl
right side. The points represent the data and the histogram is the result of the fit. T
represents the random pion-true electron background and is modeled by a second o
polynomial.

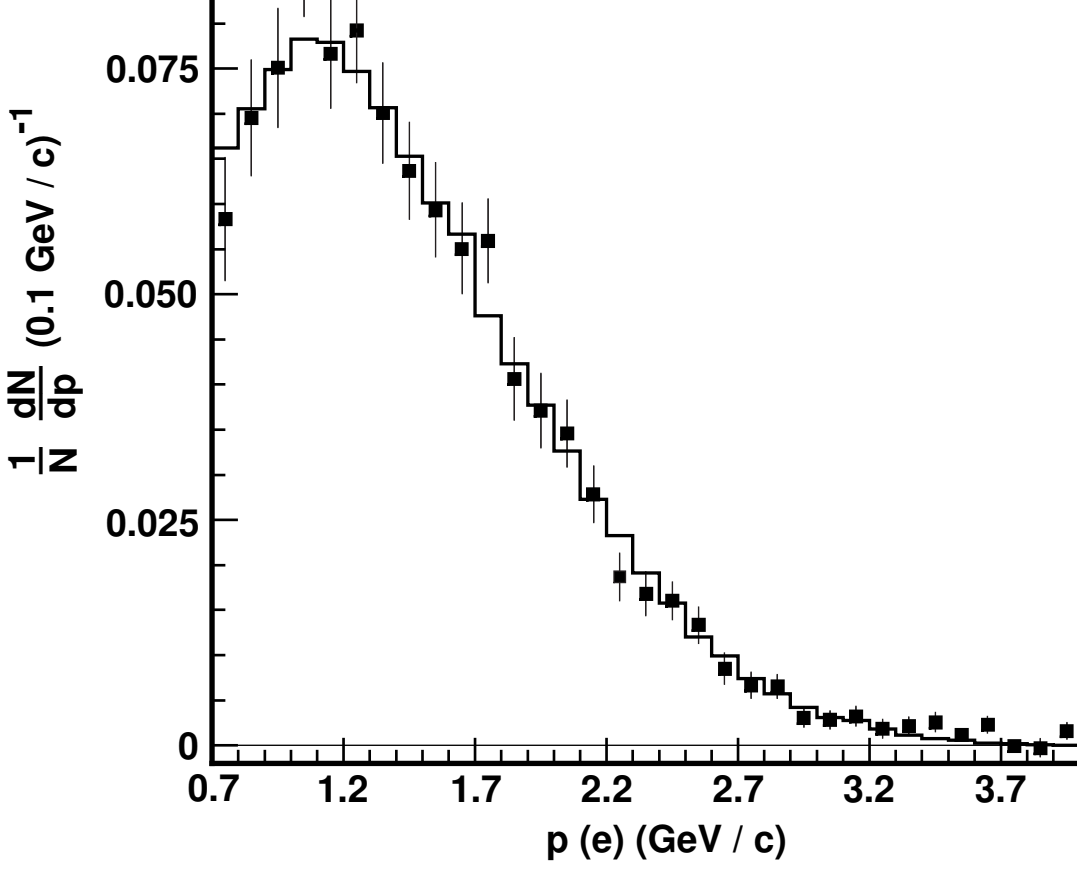


Figure 4: The lab momentum spectrum of electrons from semi-electronic $D^0$ decays. squares represent the background subtracted data, and the histogram is the result of a simulation.