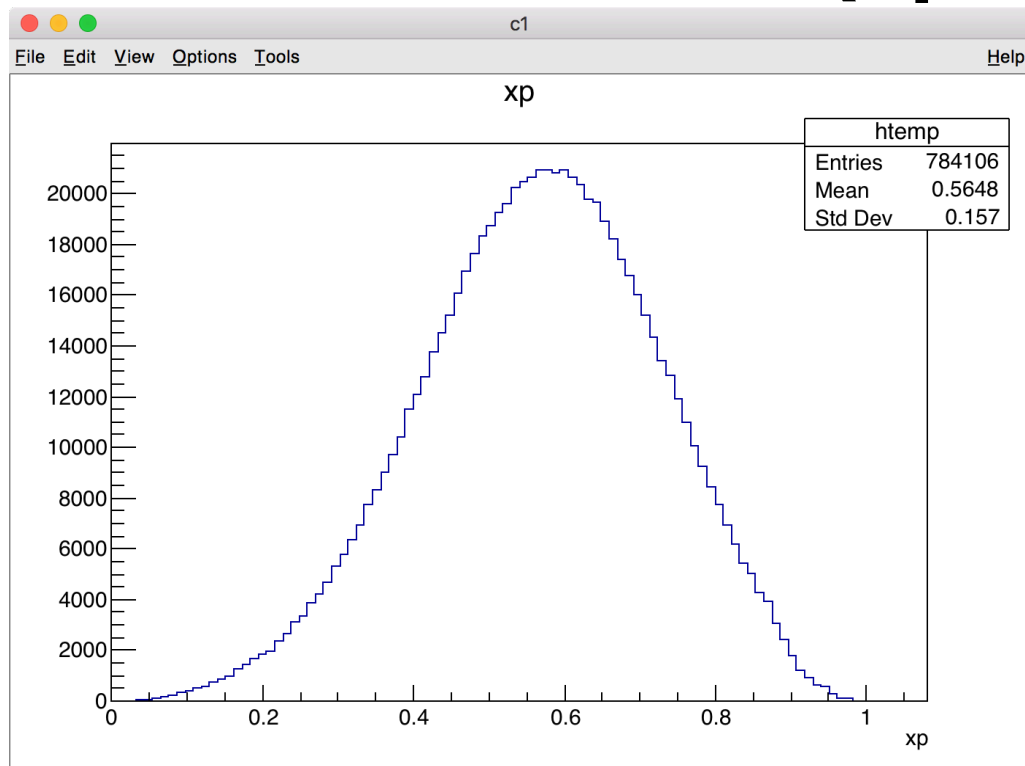# A new possible resonance at Belle
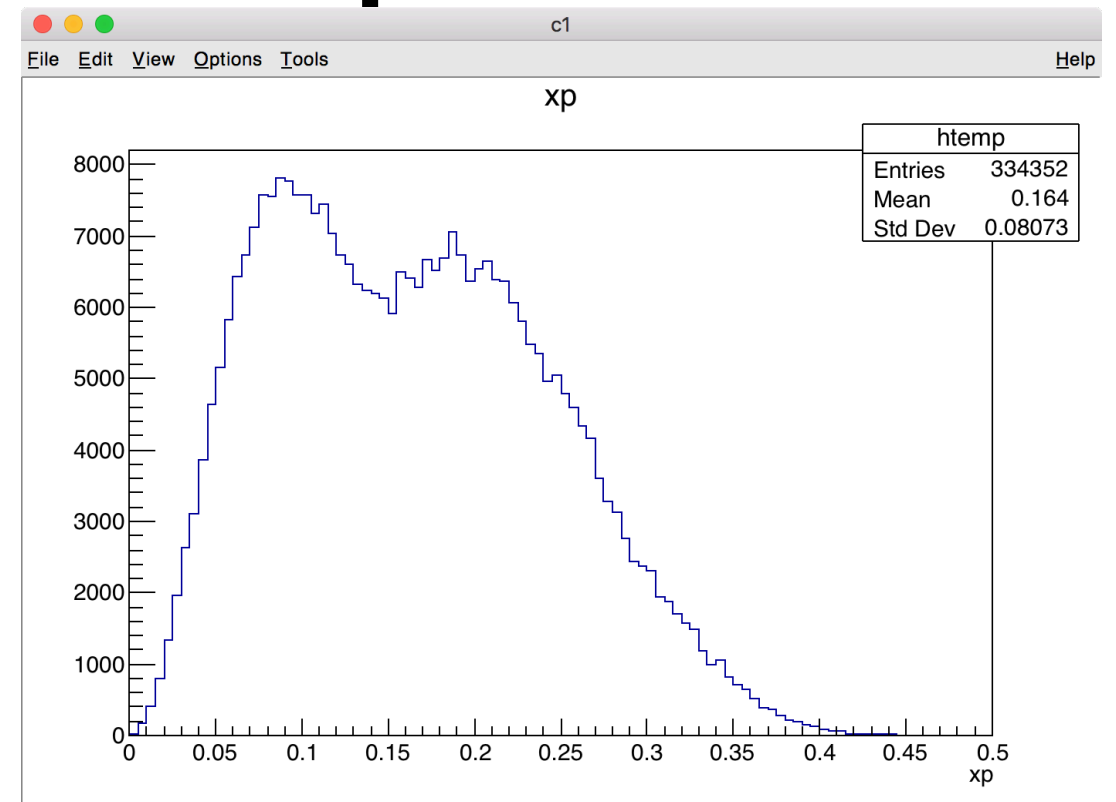
2018. 06. 04.

Jaeyong Lee

GMC Λc (ηΛπ+) Xp comparison

charm (c cbar)

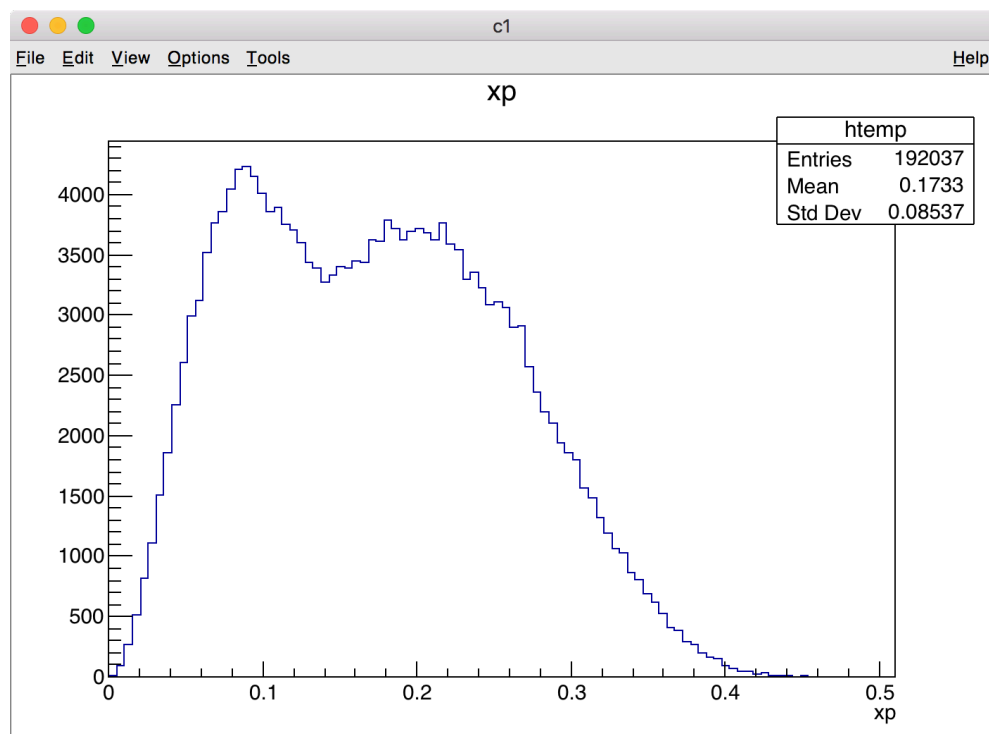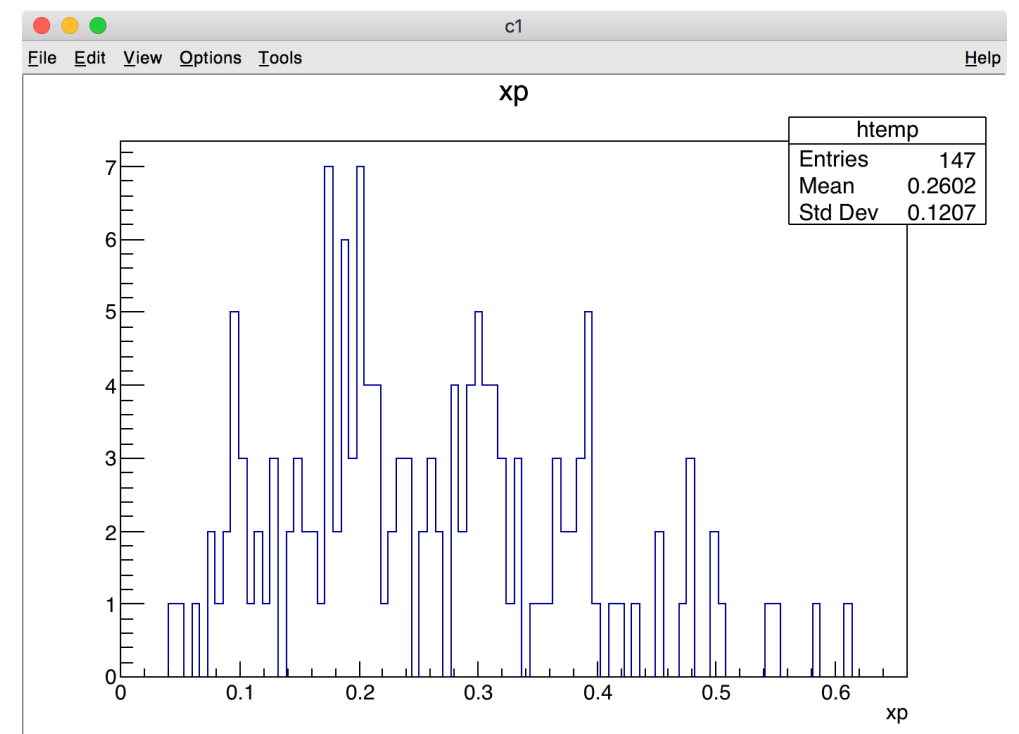charged (charged B pair)

skims other than cham can be ignored for eff. calculation

mixed (neutral B pair)

uds

GMC vs SMC eff.

pkpi channel

pkpi eff compare

GMC	non resonant	resonant delta	resonant K*	resonant L1520	total
gmc_gen_charm	5003376	1380337	1730265		8113978
gmc_charm	905808	228588	298930		1433326
gmc_eff_charm	0.181039362222627	0.165603037519099	0.172765443443634	⚠️	0.176648987709851
SMC	non resonant				
gen_charm	10367325				
gsim_charm	1865840				
smc_eff_charm	0.180316070264357				

elpi channel

elpi eff compare

GMC	non resonant	resonant sigma*	resonant a_0+	resonant L1670	total
gmc_gen_charm	425884	301173	56316		783373
gmc_charm	24594	17738	4464		46796
gmc_eff_charm	0.057748119206168	0.058896381813774	0.079266993394417	⚠️	0.059736549510897
SMC	non resonant				
gen_charm	10367040			running	
gsim_charm	569743			running	
smc_eff_charm	0.055135903393009				

L1670 eff. will be compared to non-resonant decay mode to study the eta kinematical cuts effect on the L1670 resonance. (Chenping's comment)

Plan

- Write Belle Note
  Optimization Study - FoM
  Efficiency Study for pkpi, elpi channels.
  Ask for box opening