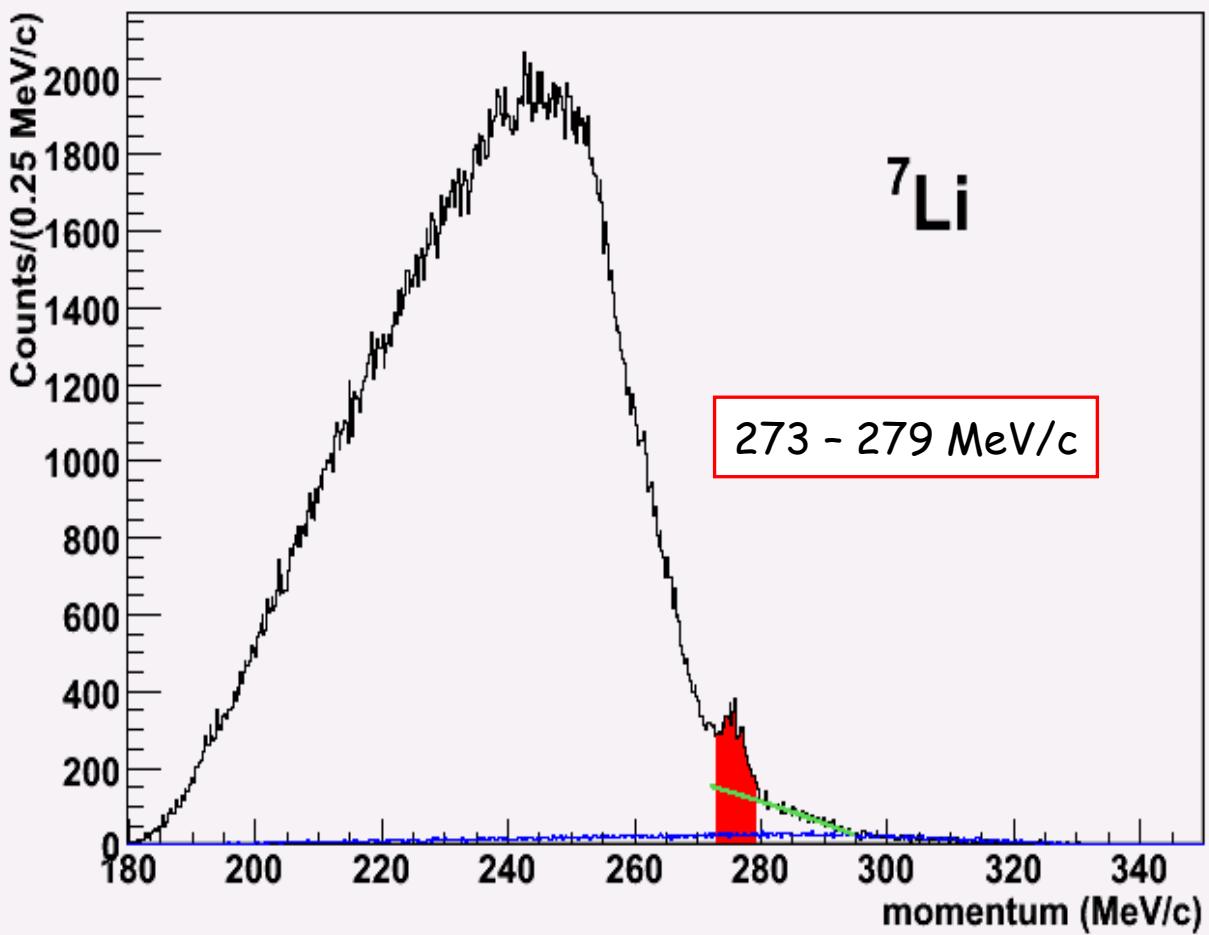


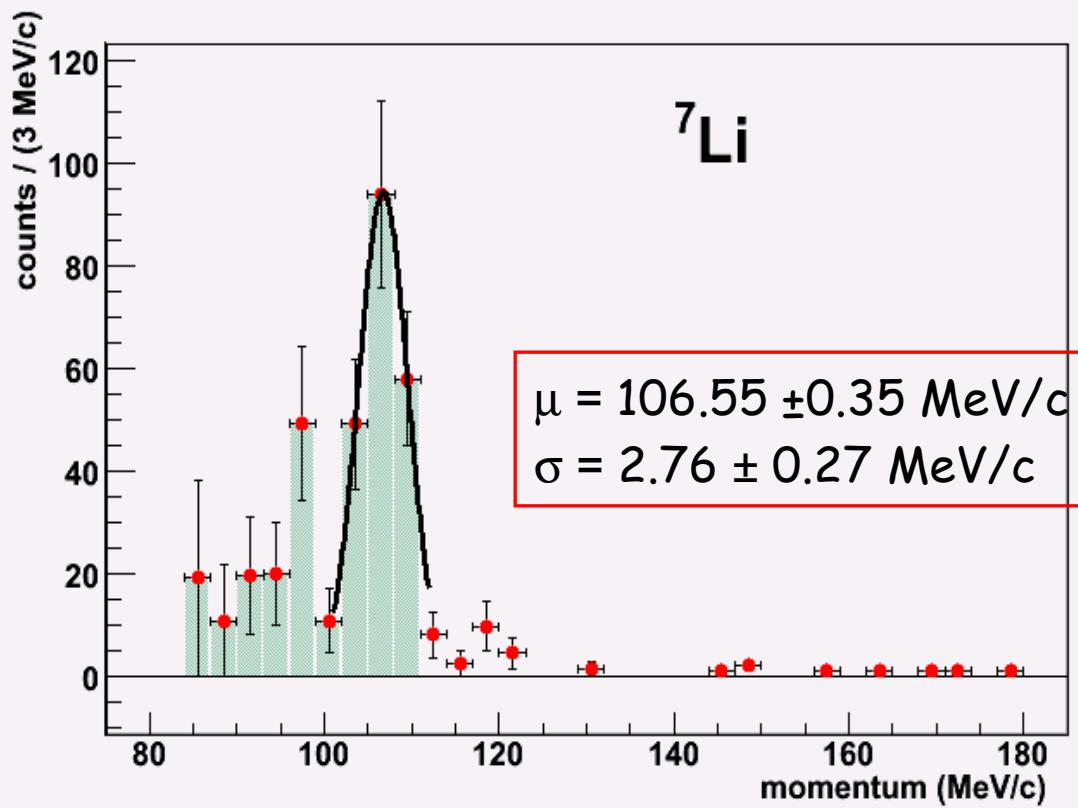
Stato dei lavori sullo studio dei Decadimenti Mesonico e Non-Mesonico



$(\text{K}^- + \text{n} \rightarrow \Lambda + \pi^-)$ su n del ${}^7\text{Li}$
 Λ "quasi free": 271.5 MeV/c

$\text{K}^- \rightarrow \mu^- + \nu_\mu$ (63%) boost

$\text{K}^- + (\text{np}) \rightarrow \Sigma^- + \pi^+$
 $\Sigma^- \rightarrow \text{n} + \pi^-$



${}^7\Lambda\text{Li} \rightarrow {}^7\text{Be}^*(429) + \pi^-$ ($p_{\pi^-} = 107.7 \text{ MeV}/c$)
 (J. Sasaki PLB 579 (2004) 258.

${}^6\text{Li} + p + \pi^-$ ($p_{\max} \sim 99 \text{ MeV}/c$)

${}^5\text{Li} + d + \pi^-$

${}^4\text{He} + {}^3\text{He} + \pi^-$ ($p_{\max} \sim 102.5 \text{ MeV}/c$)

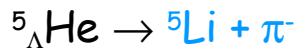
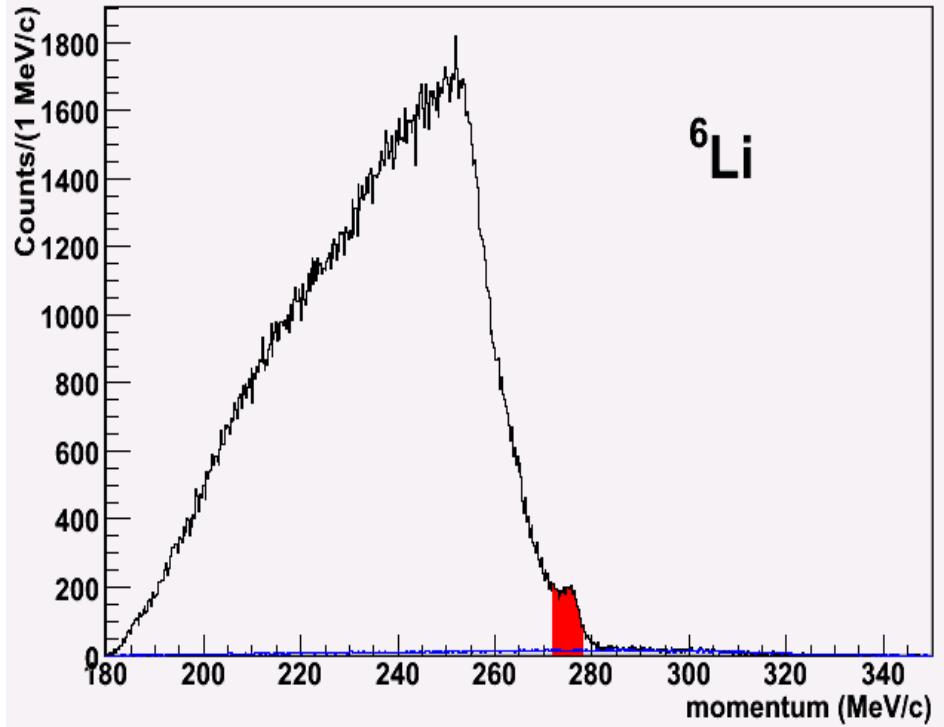
${}^3\text{He} + d + d + \pi^-$ ($p_{\max} \sim 55 \text{ MeV}/c$)

$t + {}^4\text{Li} + \pi^-$

$d + d + d + p + \pi^-$ ($p_{\max} \sim 45 \text{ MeV}/c$)

picco MWD 2B:

- 102 - 111 MeV/c
- fondo residuo sottratto
- conteggi (3σ): 207 ± 27



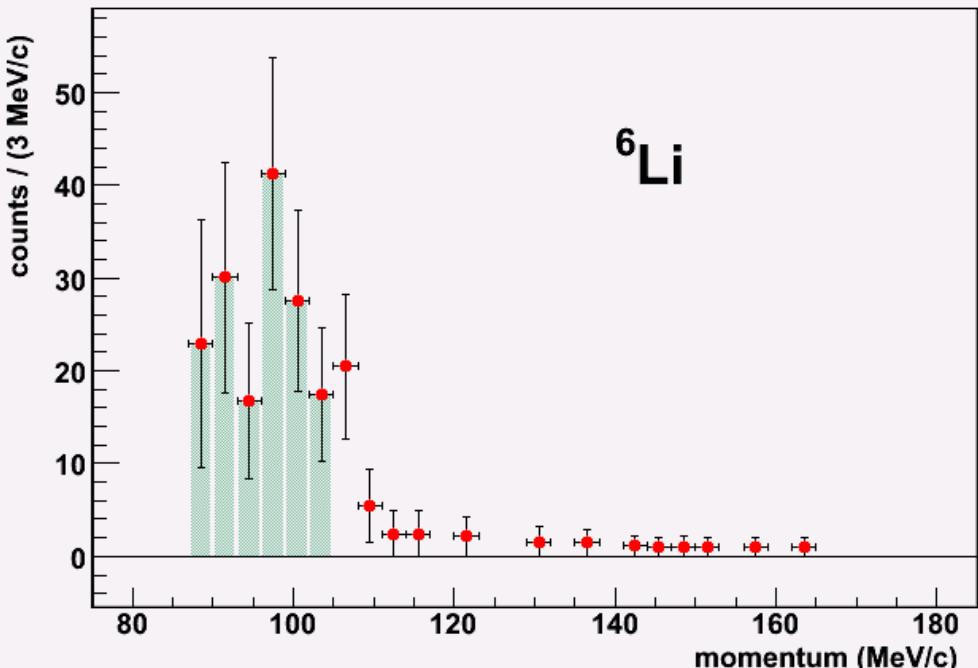
${}^4\text{He} + p + \pi^-$ ($p_{\max} \sim 102.5 \text{ MeV}/c$)

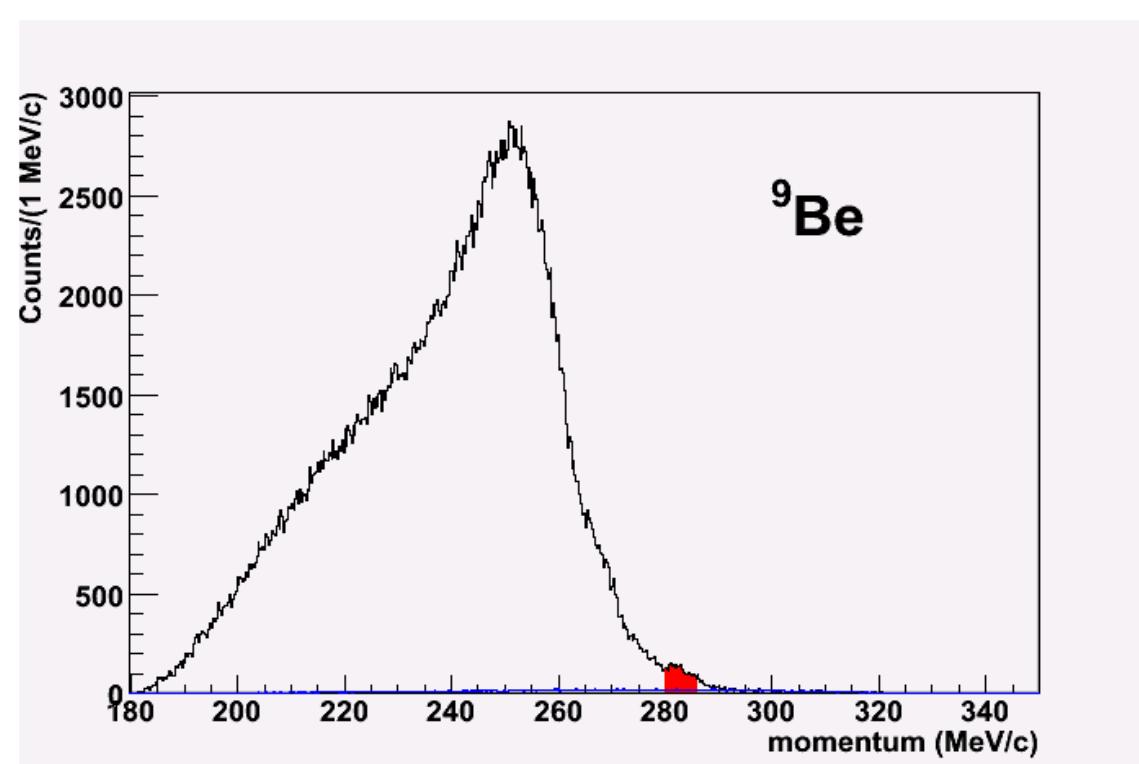
${}^3\text{He} + d + \pi^-$ ($p_{\max} \sim 64 \text{ MeV}/c$)

$t + p + p + \pi^-$ ($p_{\max} \sim 65 \text{ MeV}/c$)

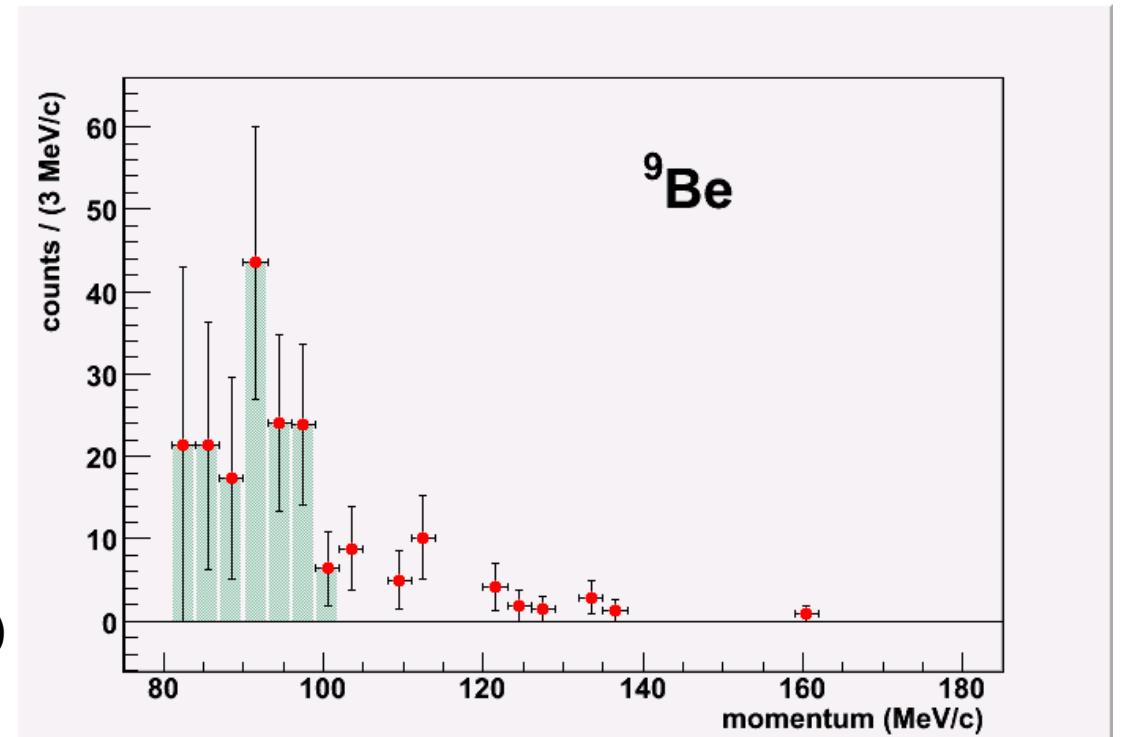
$d + d + p + \pi^-$ ($p_{\max} \sim 55 \text{ MeV}/c$)

Graph





${}^9_{\Lambda}\text{Be} \rightarrow {}^9\text{B} + \pi^-$
 ${}^8\text{B} + n + \pi^- \quad (p_{\max} \sim 61 \text{ MeV}/c)$
 ${}^8\text{Be} + p + \pi^- \quad (p_{\max} \sim 98.5 \text{ MeV}/c)$
 ${}^7\text{Be} + d + \pi^- \quad (p_{\max} \sim 66 \text{ MeV}/c)$
 ${}^7\text{Li} + p + p + \pi^-$
 ${}^6\text{Li} + d + p + \pi^-$
 ${}^5\text{Li} + d + d + \pi^-$
 ${}^4\text{He} + {}^4\text{He} + p + \pi^- \quad (p_{\max} \sim 98.5 \text{ MeV}/c)$

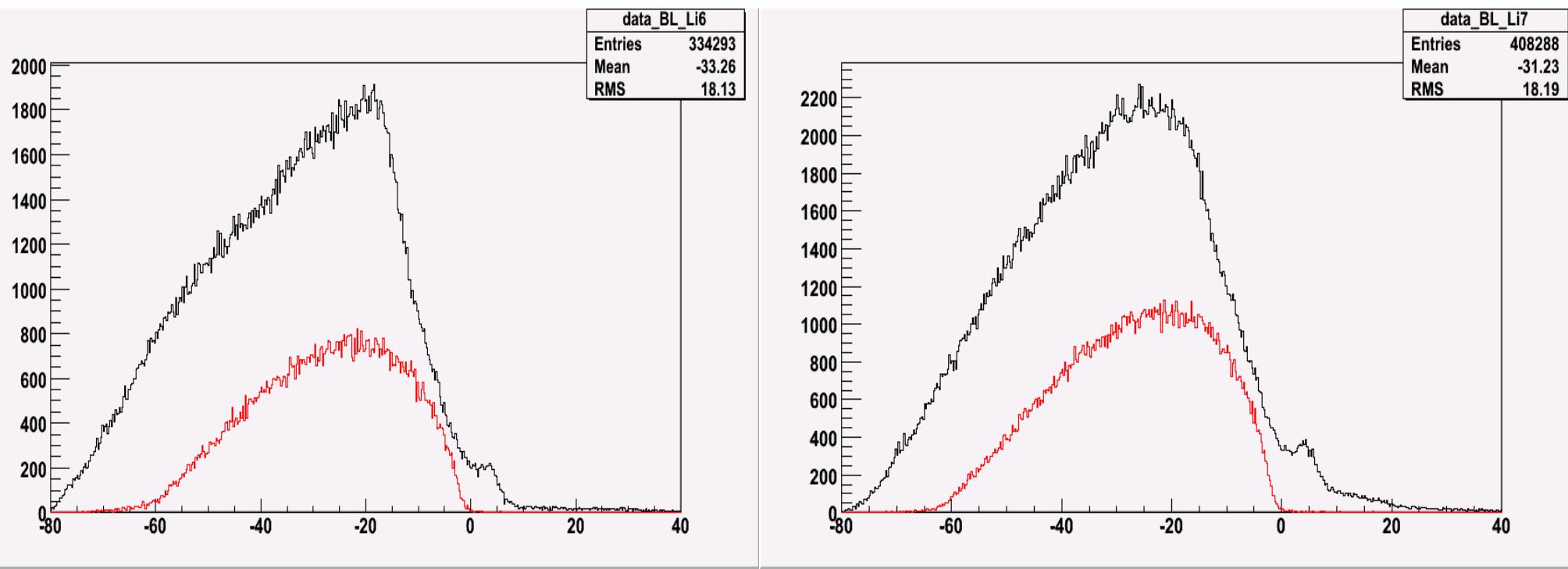


Ratei di decadimento

$${}^5_{\Lambda}\text{He} \quad A = 149 \pm 27 \text{ (87-105 MeV/c)} \quad B = 3842 \pm 66 \quad \text{B.R.} = 0.0388 \pm 0.0070 \\ 874 \pm 157 \text{ (0-105 MeV/c)} \quad 0.227 \pm 0.041$$

Szymanski PRC 43(1991) 849 B.R.= 0.43 ± 0.11 } B.R. π^- tot solo ${}^4\text{He} + \text{p} + \pi^-$
 Kameoka NPA 754(2005) 173 B.R.= 0.359 ± 0.009

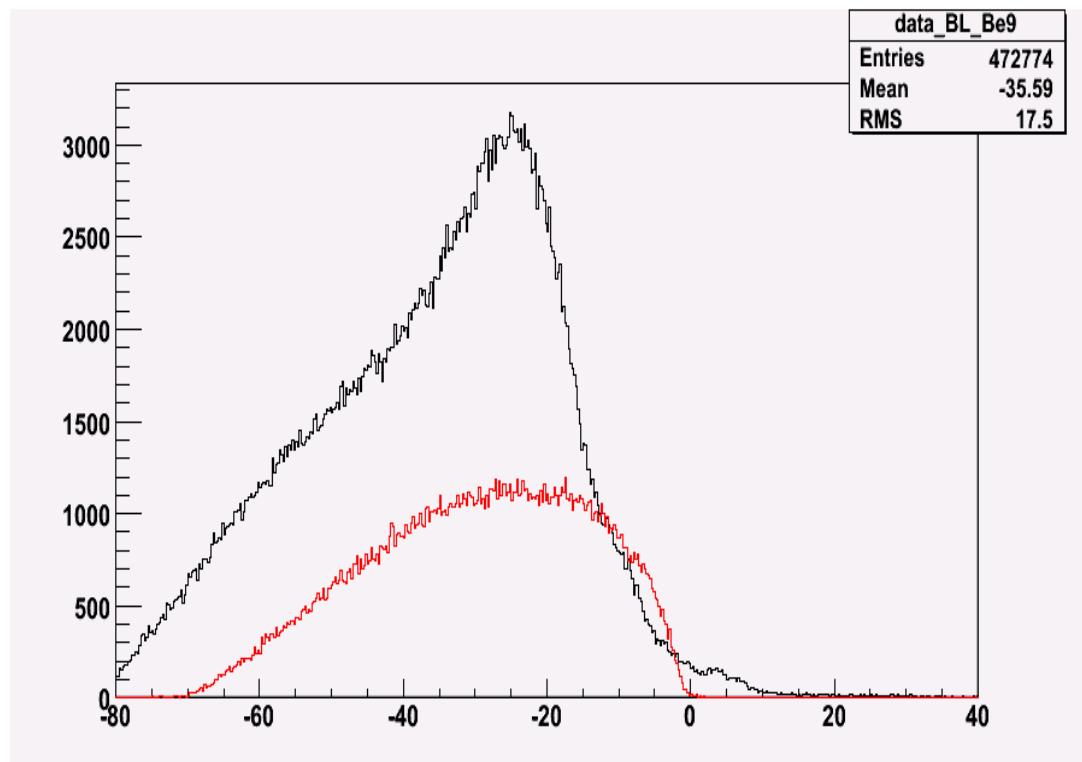
${}^7_{\Lambda}\text{Li}$	$A = 207 \pm 27$ (102-111 MeV/c)	$B = 3740 \pm 119$	$B.R. = 0.0555 \pm 0.0075$
	Sasao PLB 579 (2004) 258	$B.R. ({}^7\text{Be}^*(429) + \pi^-) = (6.0^{+1.3}_{-1.6}) \cdot 10^{-2}$	
	118 ± 37 (84-102 MeV/c)	<u>3B</u>	0.032 ± 0.010
	320 ± 41 (84-111 MeV/c)	$2B+3B$	0.086 ± 0.011



End point della simulazione OK

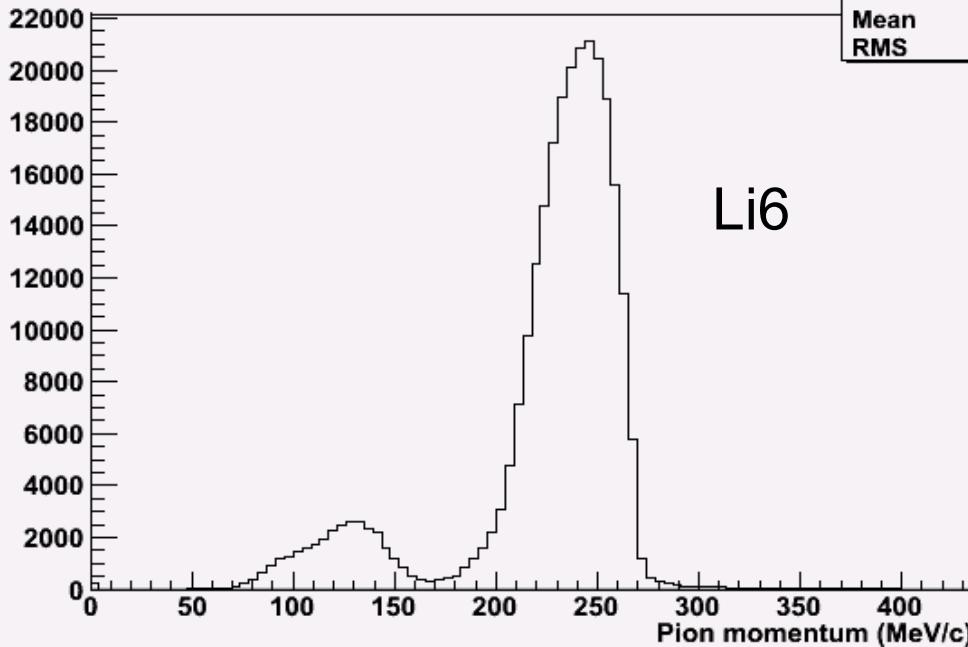
ma la **forma** soprattutto nel caso
del 9Be NO

Normalizzazione?



Pmodmin*1000 {Pmodmin<0.4&&Pidmin==9&&(Ntarmin==1||Ntarmin==8)}

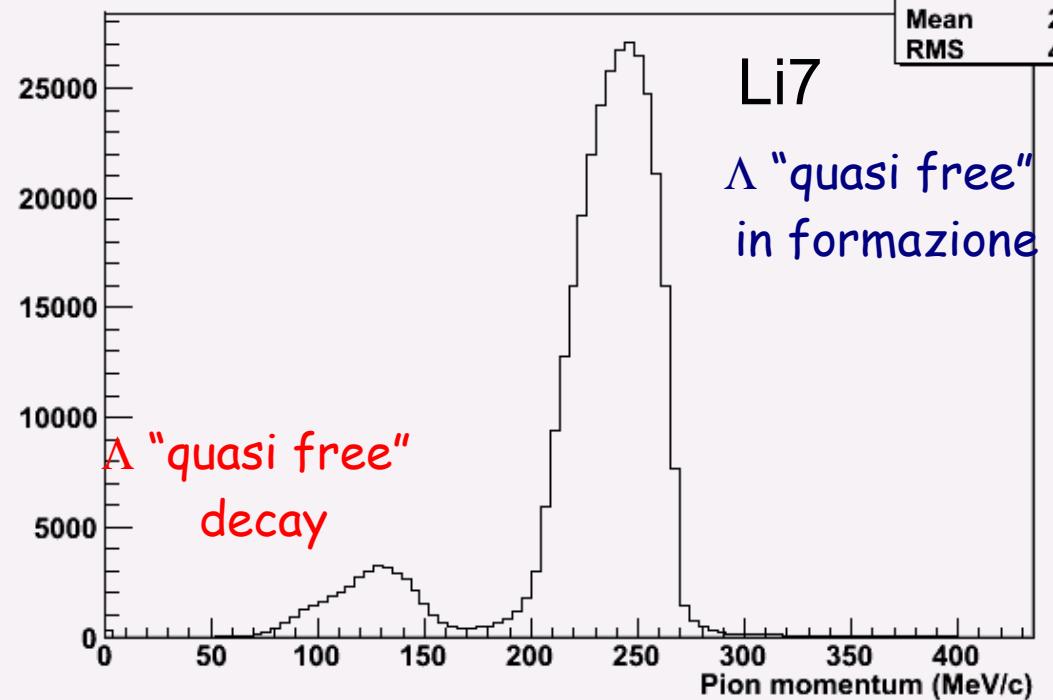
htemp
Entries 264073
Mean 224.5
RMS 42.6

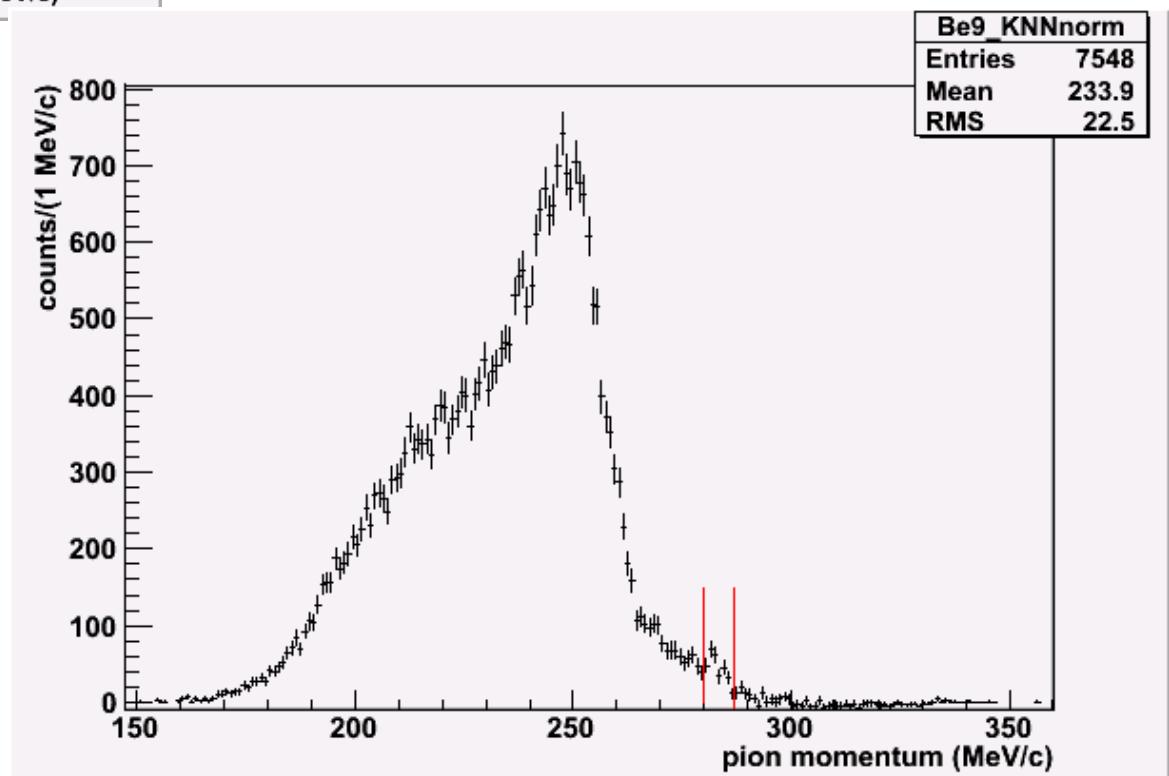
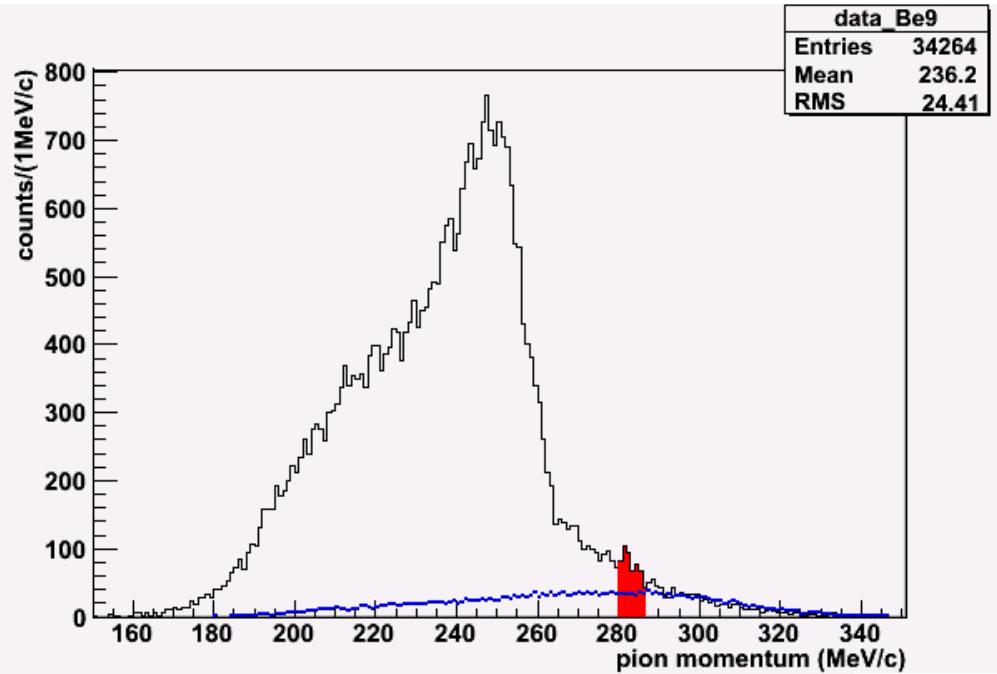


Λ "quasi free": formazione e decadimento
valutazione del fondo negli spettri di pioni
corti dal decadimento mesonico

Pmodmin*1000 {Pmodmin<0.4&&Pidmin==9&&(Ntarmin==3||Ntarmin==5)}

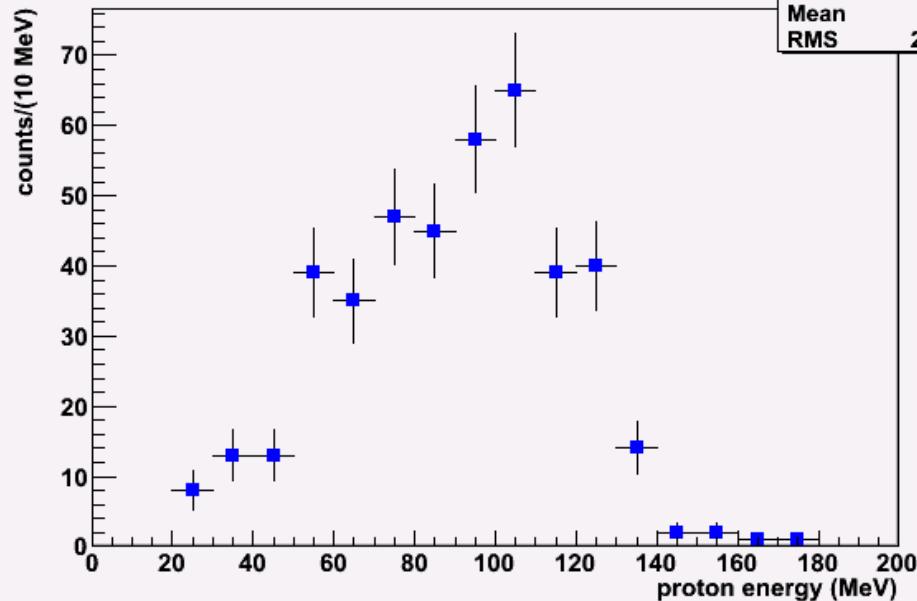
htemp
Entries 335675
Mean 226.4
RMS 41.17



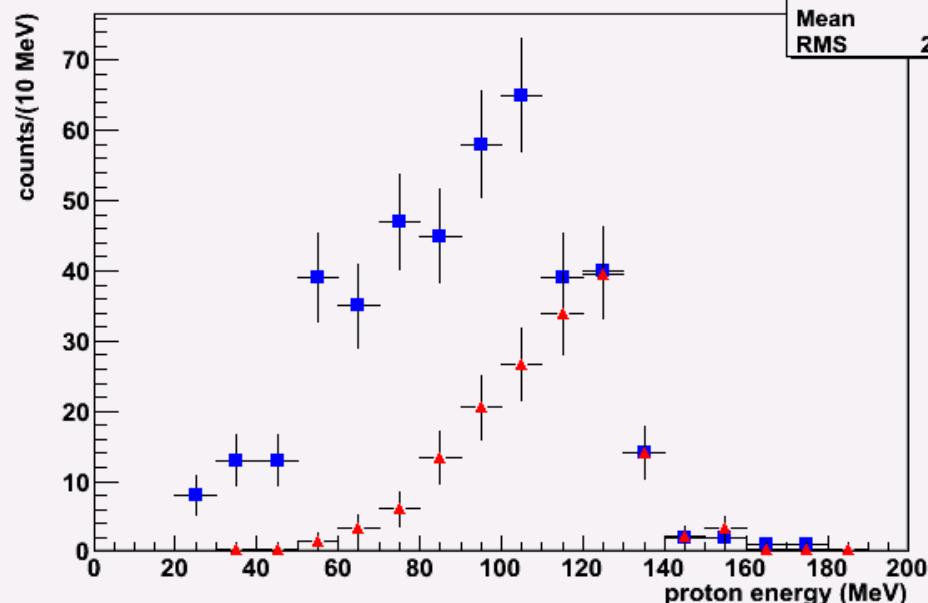


Be9_enprot

Be9_enprot
Entries 422
Mean 89.2
RMS 27.55

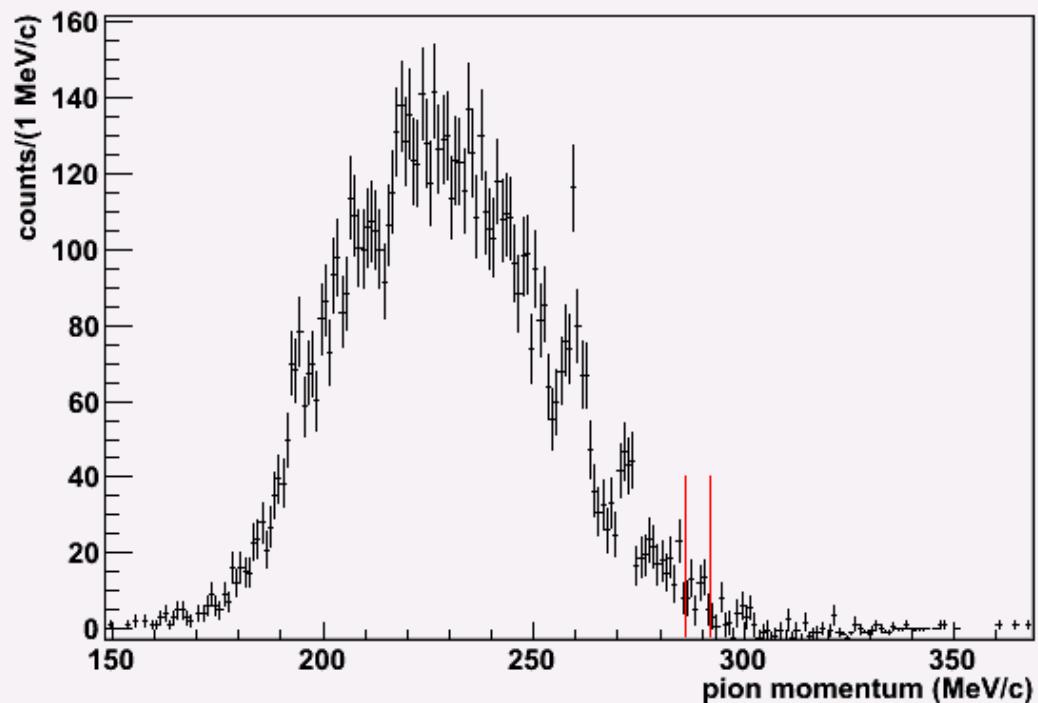
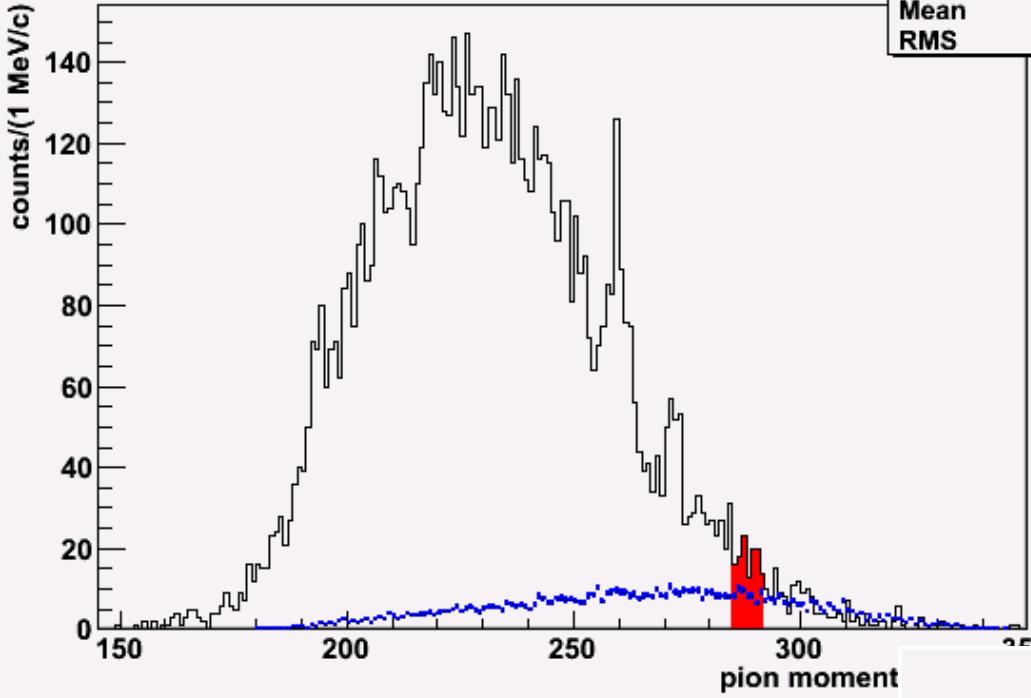
**Be9_enprot**

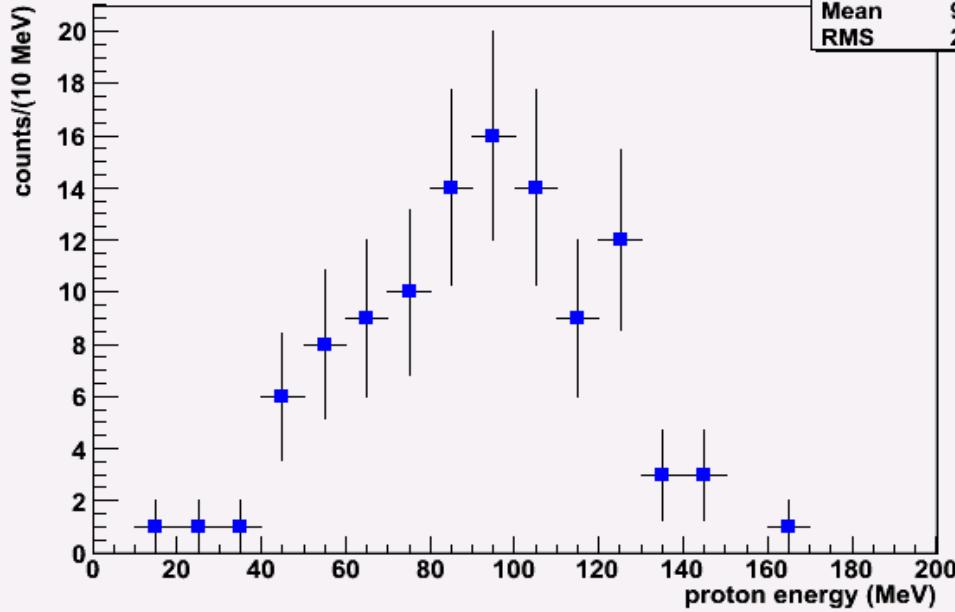
Be9_enprot
Entries 422
Mean 89.2
RMS 27.55



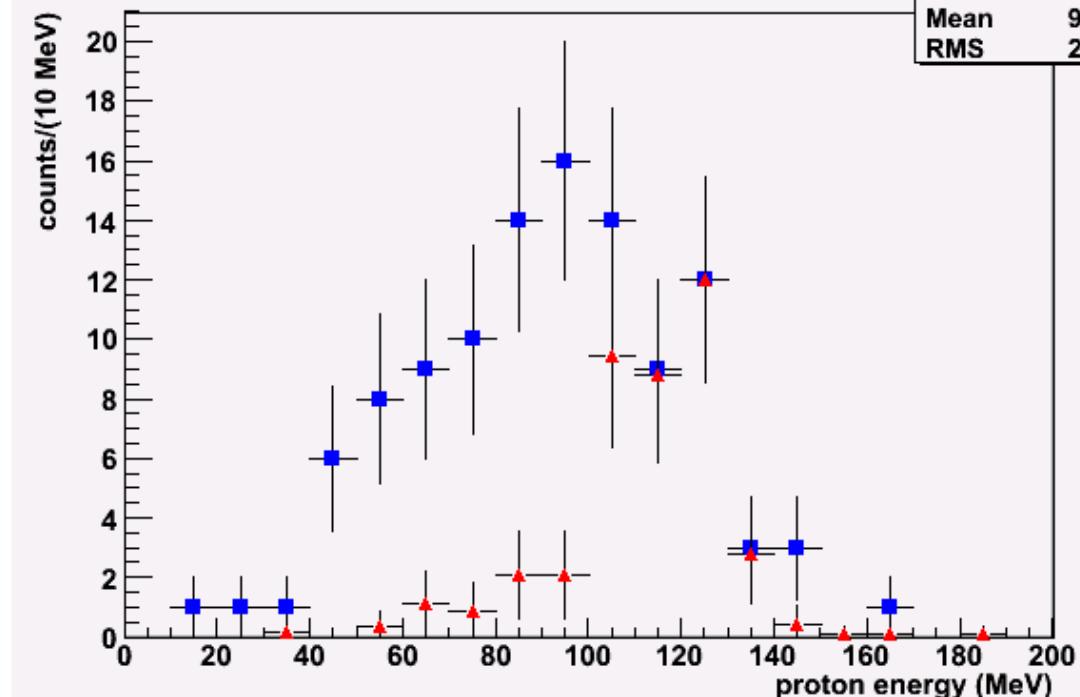
C13_piocoinc

C13_piocoinc
Entries 9013
Mean 231.9
RMS 26.84



C13_enprot

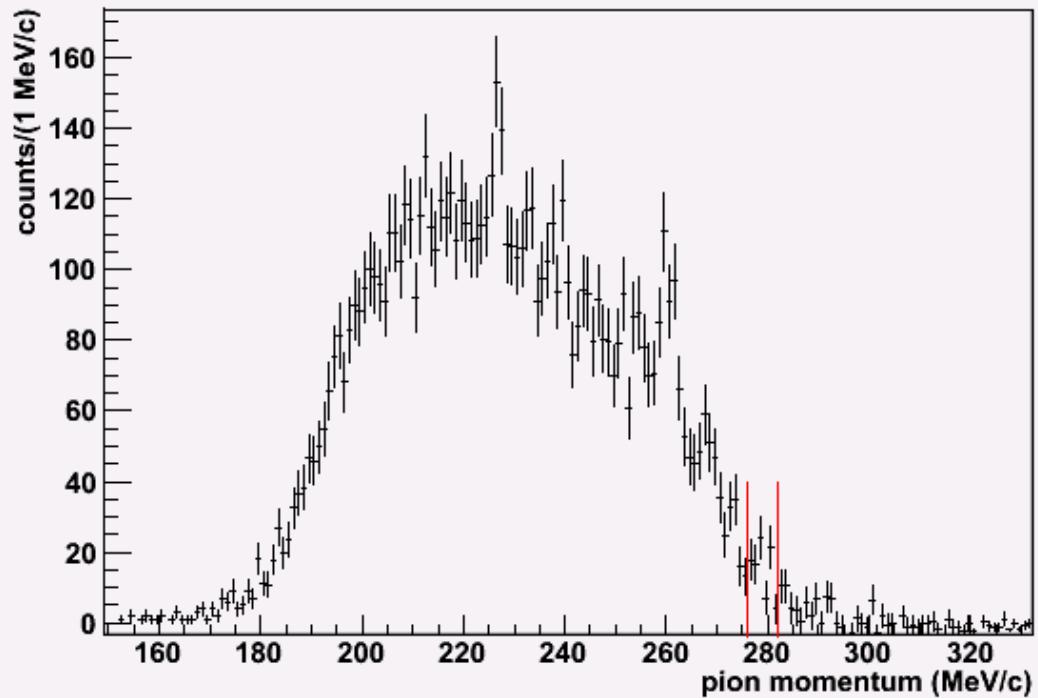
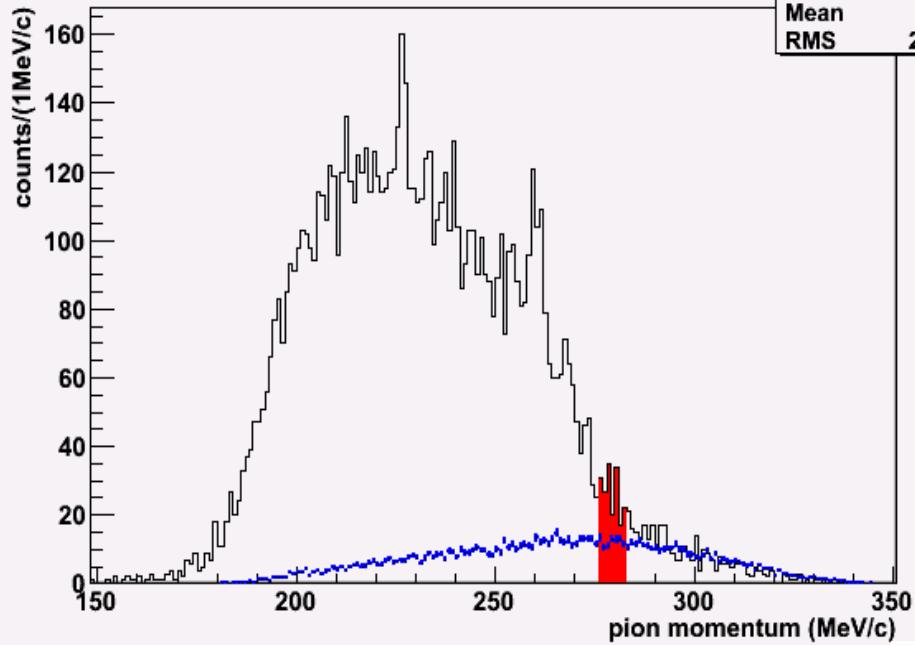
C13_enprot
Entries 108
Mean 91.13
RMS 28.04

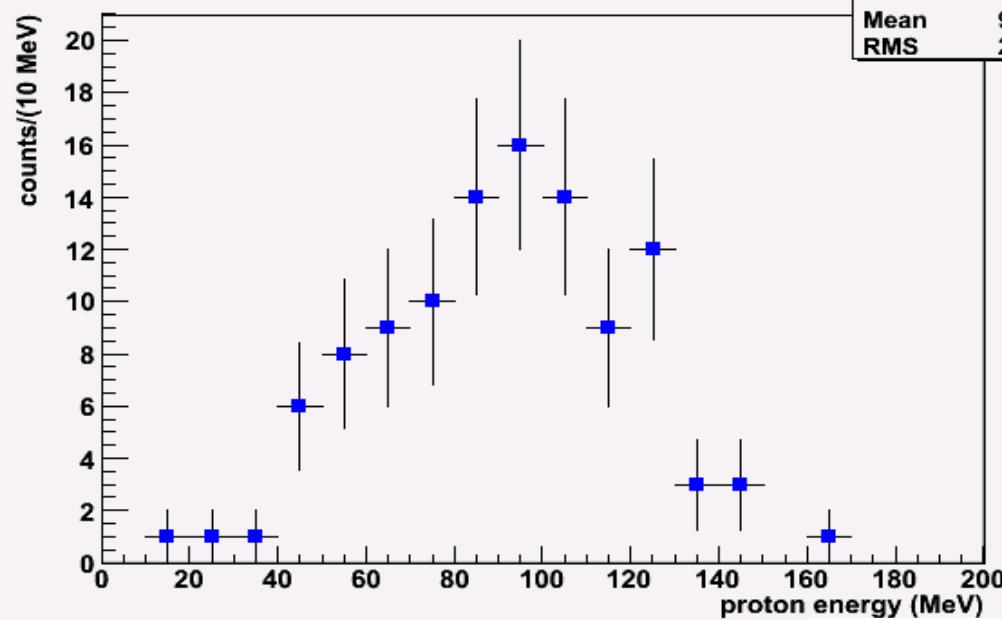
C13_enprot

C13_enprot
Entries 108
Mean 91.13
RMS 28.04

D2O_piocoinc

D2O_piocoinc
Entries 9107
Mean 232
RMS 27.58



C13_enprot**C13_enprot**