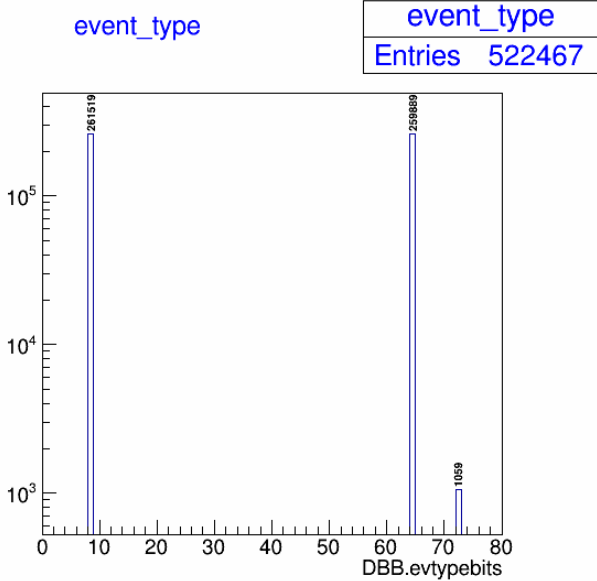
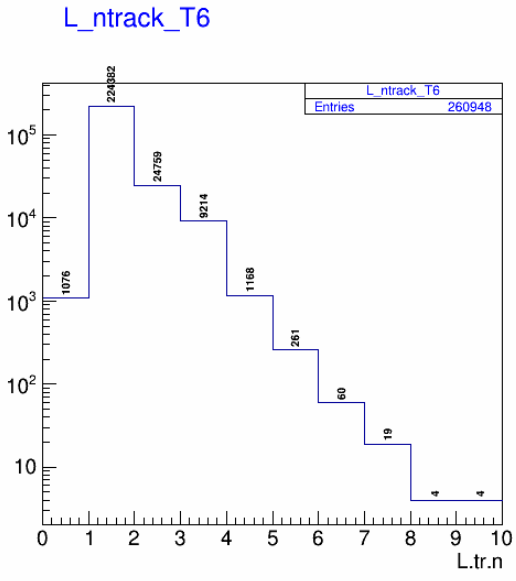


Event with various cut (run 2035)

	Select Cut		Entries	%	
0	Total entries		522510		
1	T6 no edtm	 <p>(T3 = 261519) (T6 = 259889) (T3&amp;T6 = 1059)</p>	260948	49.9	From total entries
2	LHRS has track + T6 no edtm	 <p>No track = 1076</p>	259872	99.5	From T6
2*	LHRS has single track +	For simplicity when making coincidence time	224382	86.0	From T6
				86.3	From T6&

T6 no edtm

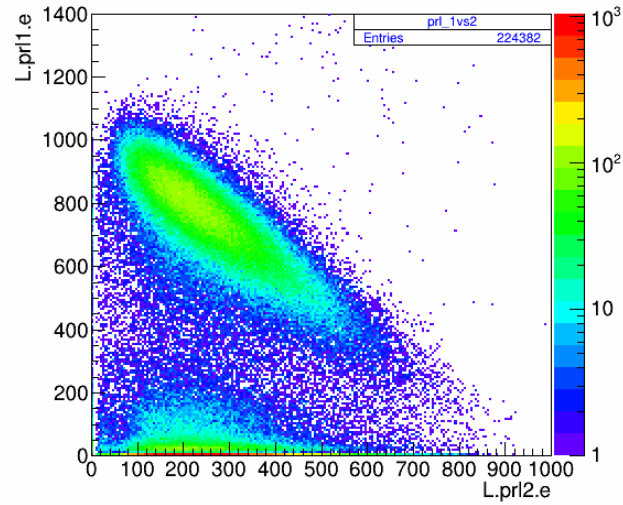
LHRS has track

3

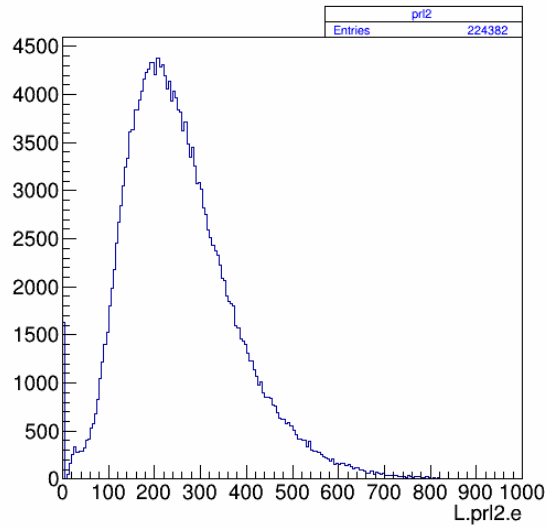
Electron PID

We have problem with half of prl1 off-line. The registration in prl2 can still be use as PID.

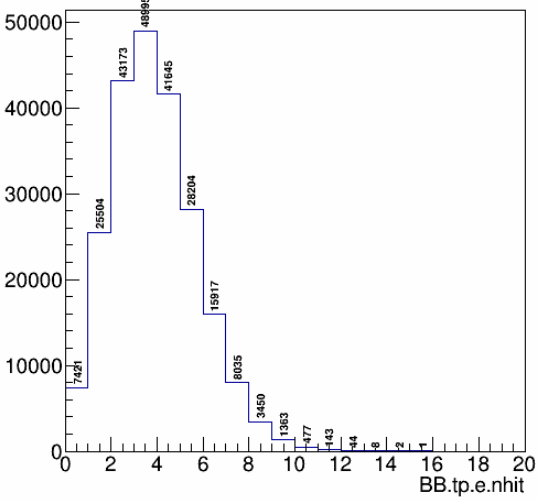
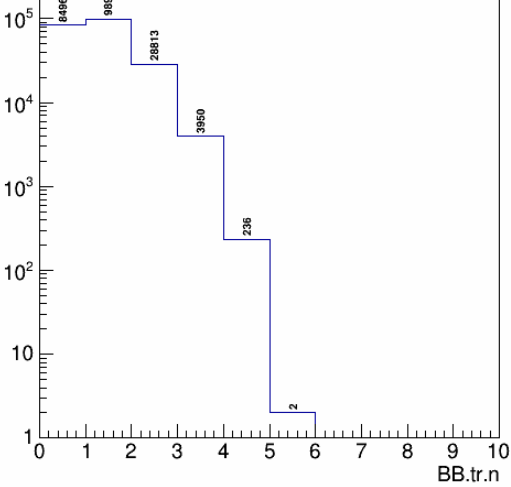
prl\_1vs2



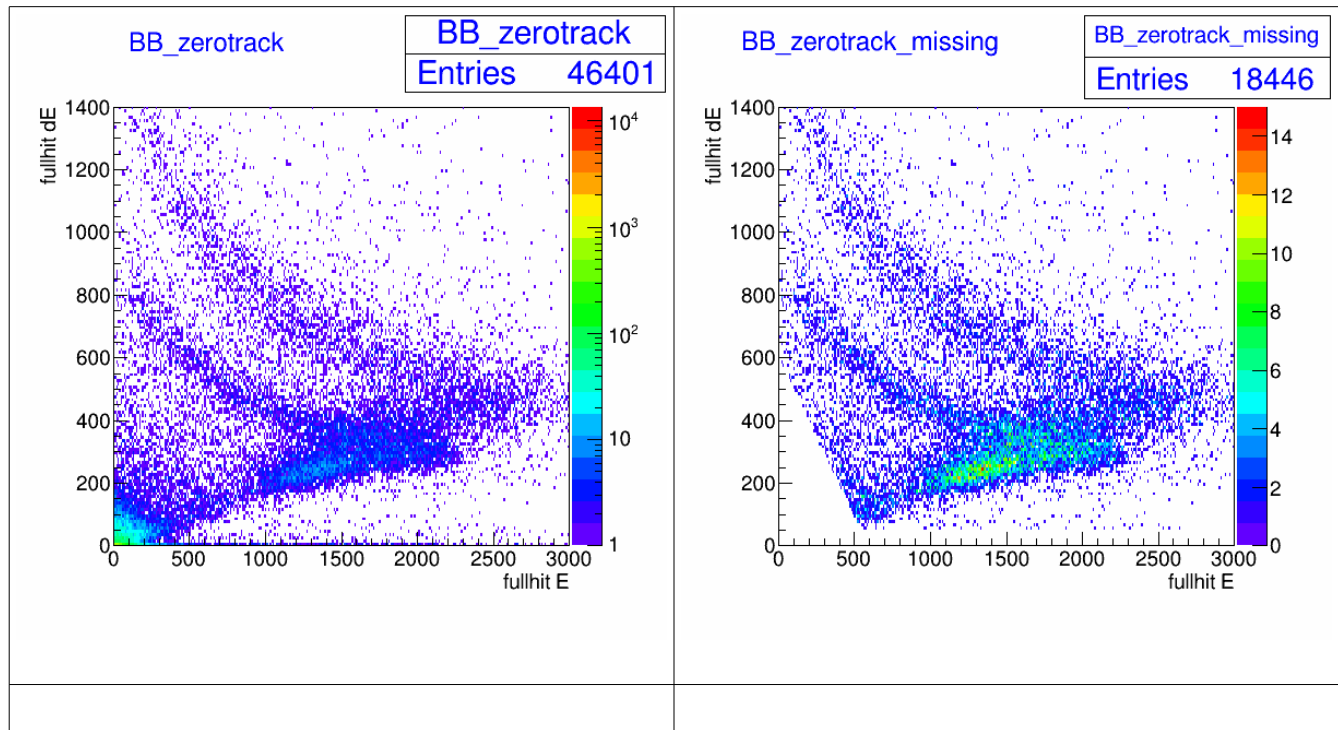
prl2



Zero energy deposit = 1628  
(0.7% contamination )

	BigBite	With LHRS & T6	224382		
4.1	BB has hit in E plane	<p>No hit = 7421</p> <p>BBhit</p> <div data-bbox="857 247 1097 327" style="border: 1px solid black; padding: 2px; width: fit-content; margin: 0 auto;"> <p>BBhit Entries 224382</p> </div>  <p>As expected because T6 come from hit in E plane</p>	216961	96.7	From  LHRS has single track + T6 no edtm
4.2	BB has track + has hit in E plane	<p>BB_ntrack_T6_Ln1_ehit</p> <div data-bbox="850 1003 1097 1083" style="border: 1px solid black; padding: 2px; width: fit-content; margin: 0 auto;"> <p>BB_ntrack_T6_Ln1_ehit Entries 216961</p> </div>  <p>No track = 84963 (39.1%) single track 98997 (45.6%)</p>	131998	60.8	From  BB has hit in E plane + LHRS has single track + T6 no edtm

Side bar, For the 84963 events with no track, we have 46401 events can be identify as full hit between dE vs E and 18446 event (21% of zero track) that should have been in good reconstruction of track but miss.



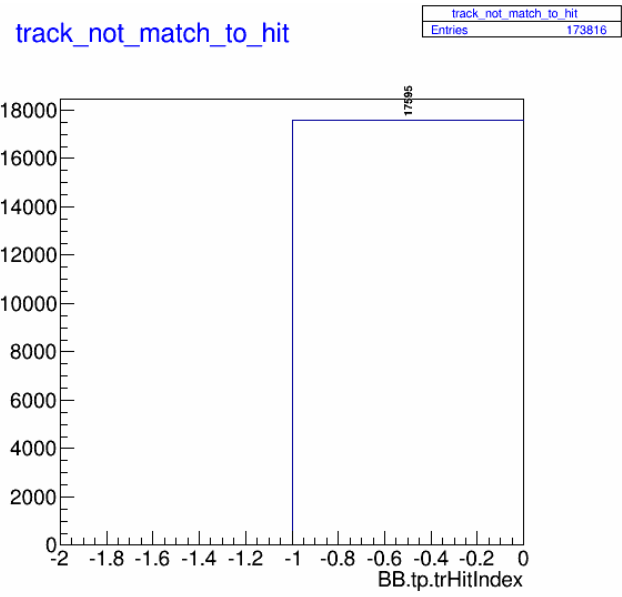
I'm stuck on how should I process with the inefficiency of the BigBite here.

If I only care about the number of event that has hit in E plane but has no track reconstruction then I will have 39.1% inefficiency from MWDC track reconstruction.

But if I take out the data at lowest conner of dE vs E (from fullhit) with zero track =  $46401 - 18446 = 27955$  event as not miss reconstruction because it is not proton or deuteron in dE vs E anyhow, I will have

$$131998. / (216961 - 27955) = 69.8\% \text{ MWDC efficiency}$$

4.3 BB has track  
+  
has hit  
+  
has track and  
hit matching  
in either  
“fullhit” or  
“parhit”  
option



Not able to match = 17595 track from total of 173816 tracks