

Update Study of Pile-Up with a ^{60}Co Source

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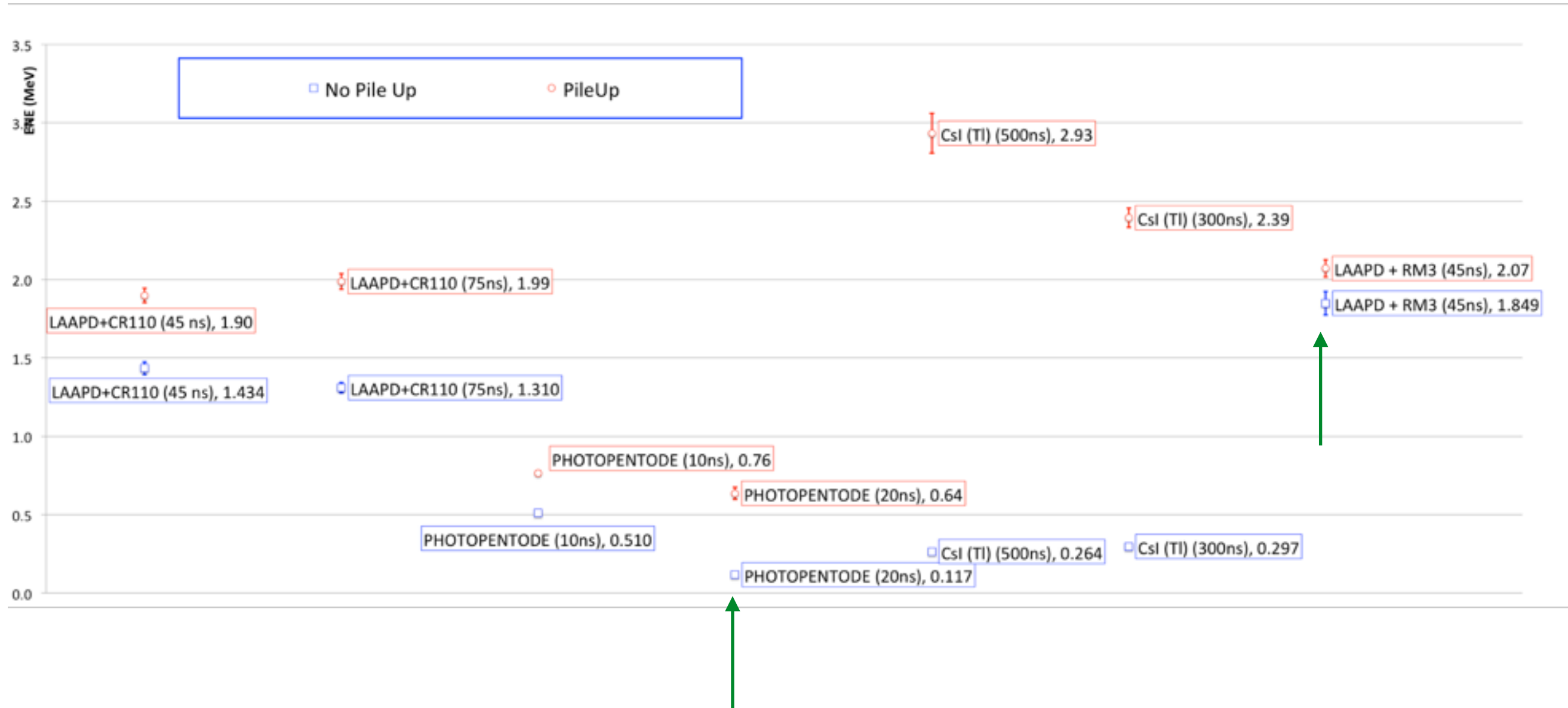
ECL - February 25, 2016

Run Inventory

- DATA taken:
 - One Csl (TI) + PIN diodes readout with and without source
 - One Pure Csl + LAAPD & CR110 readout with and without source (“Box 2”)
 - One Pure Csl + RM3 Photopentode Roma3 readout with and without source
- New DATA taken, with & without source:
 - Pure Csl + new LNF Photopentode & RM3
 - Pure Csl + LAAPD & CR-110 “Box 1”
 - Pure Csl + LAAPD & Roma3 preamp readout
- New DATA taken without source:
 - Pure Csl + 2 new LNF Photopentode & RM3 to measure the energy resolution
- DATA to be taken:
 - Other Csl(TI)
 - Other Pure Csl

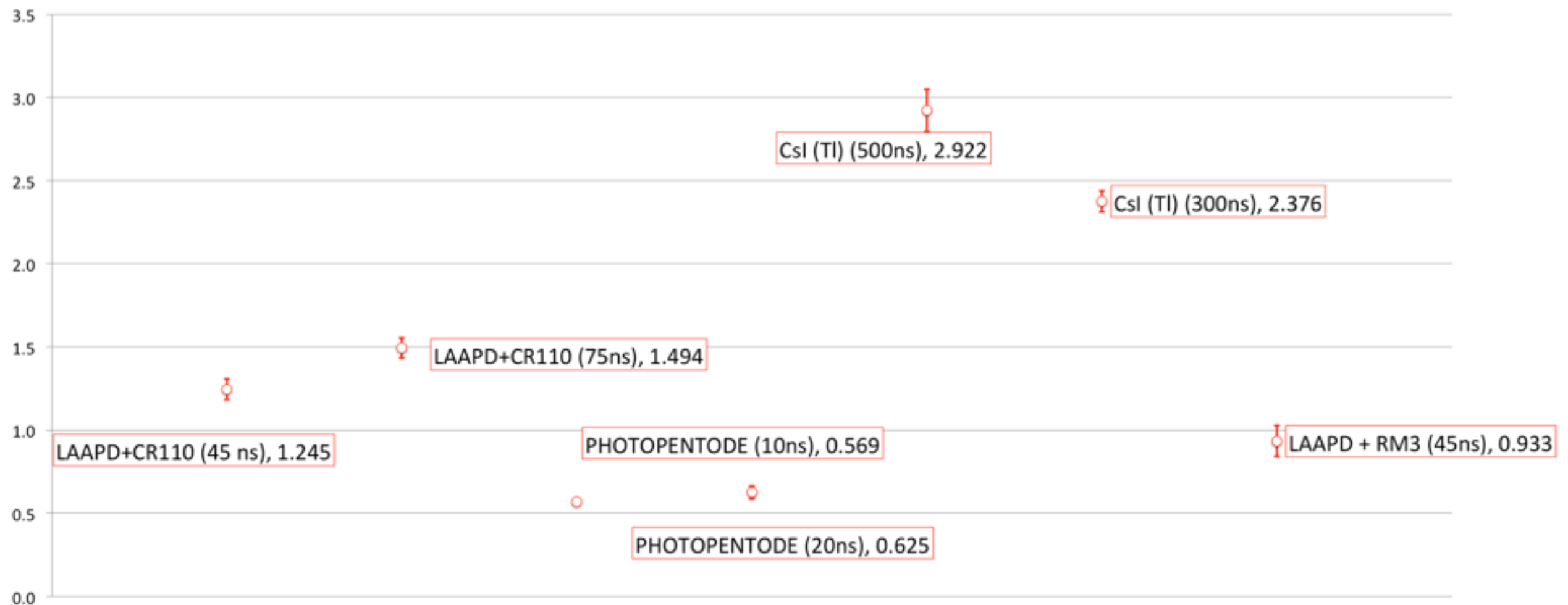
Compilation of ENE Results

ENE (MeV)



The ENE with pile-up is ~**2 MeV** for pure CsI and ~**3 MeV** for CsI(Tl)

The contribution to the ENE of the pile up can be extracted from the difference in quadrature of the previous measurements



Doped CsI has ~twice the ENE of pure CsI from pile-up, in agreement with the results obtained with the simulations