

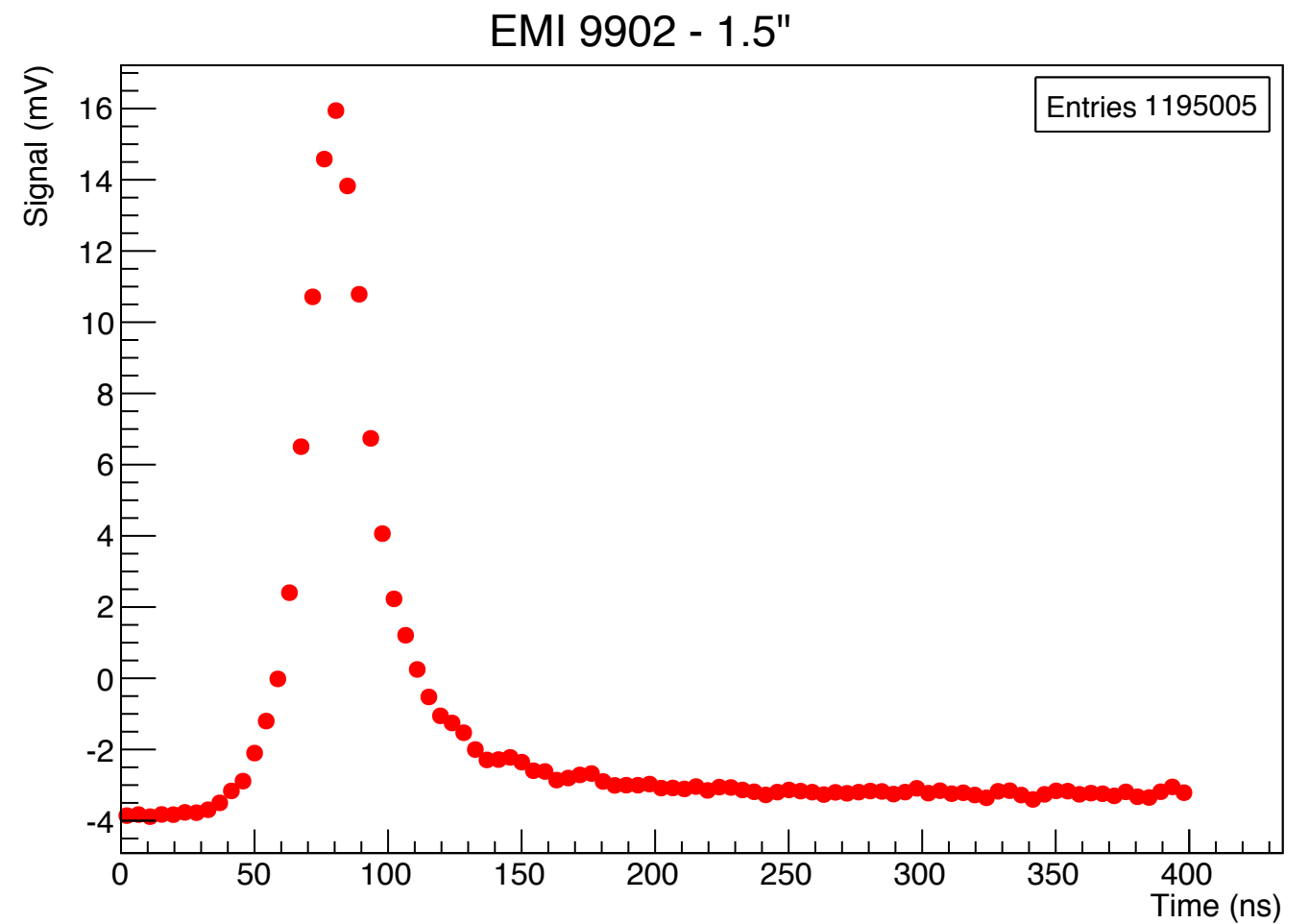
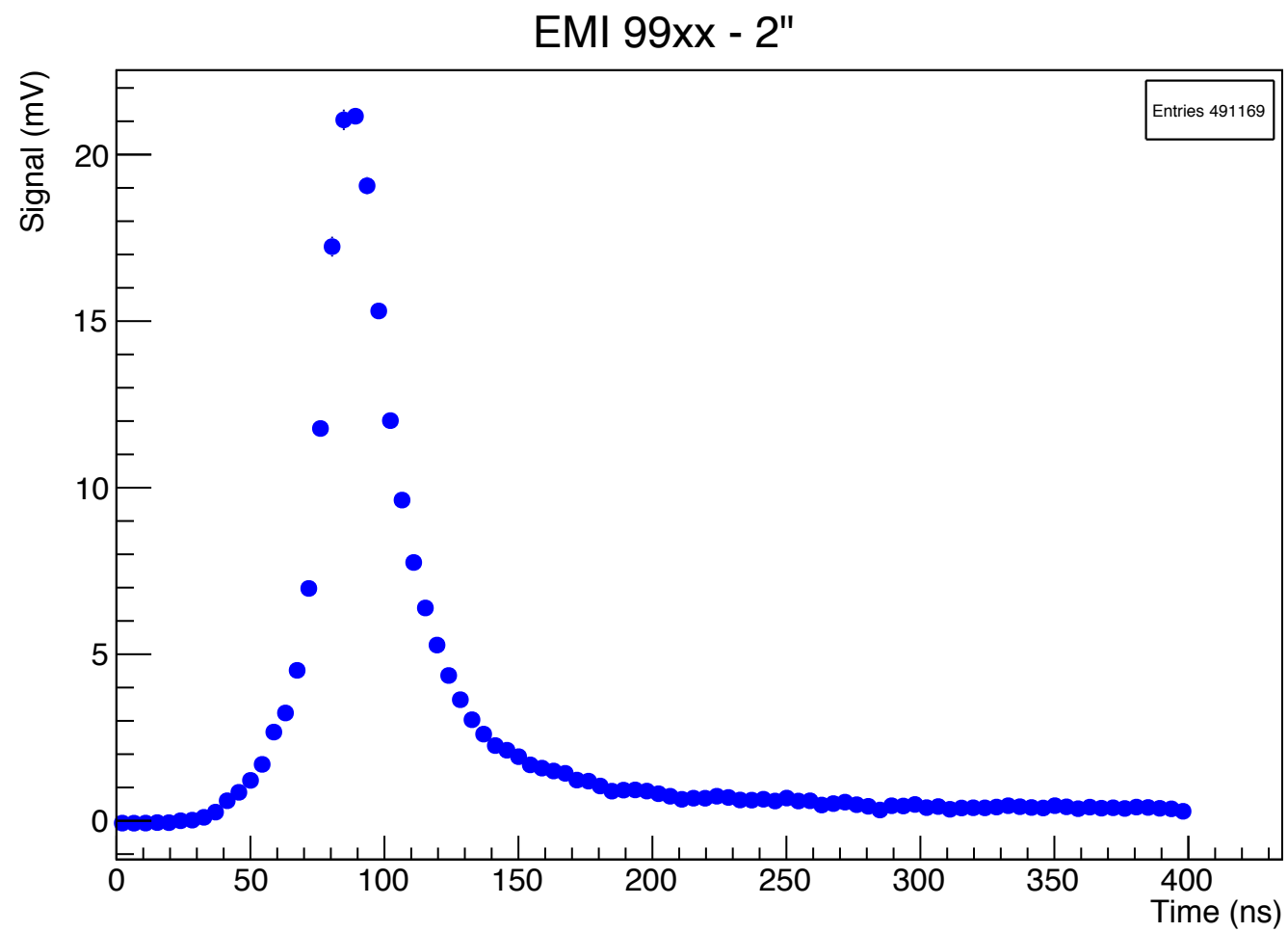
Pure CsI Crystals with PMT readout

R. de Sangro, G. Finocchiaro

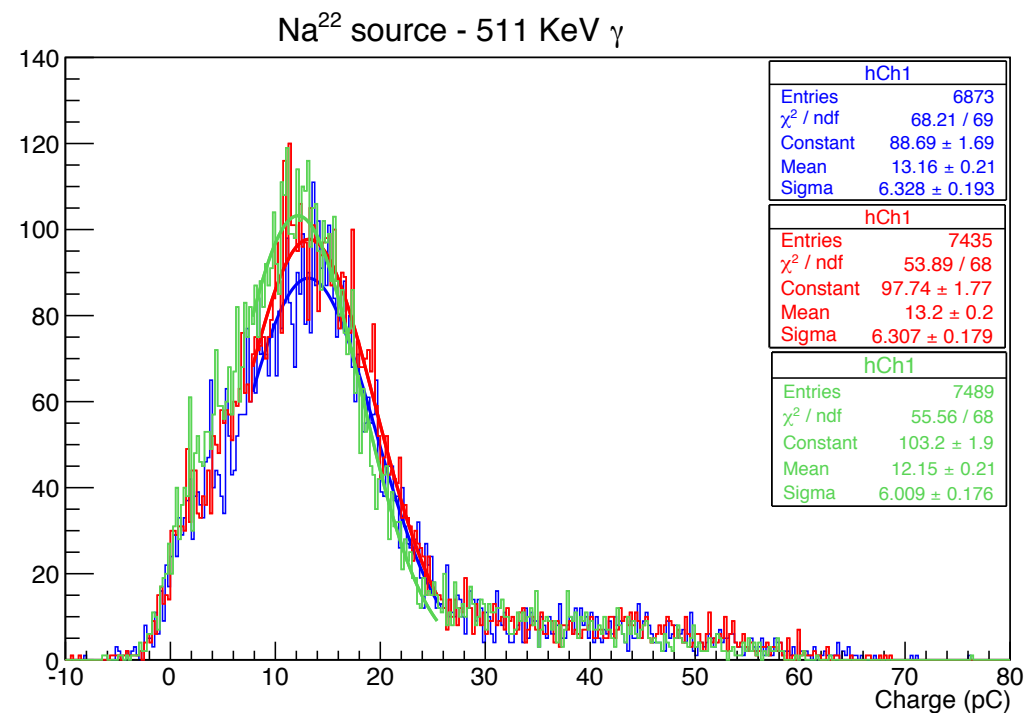
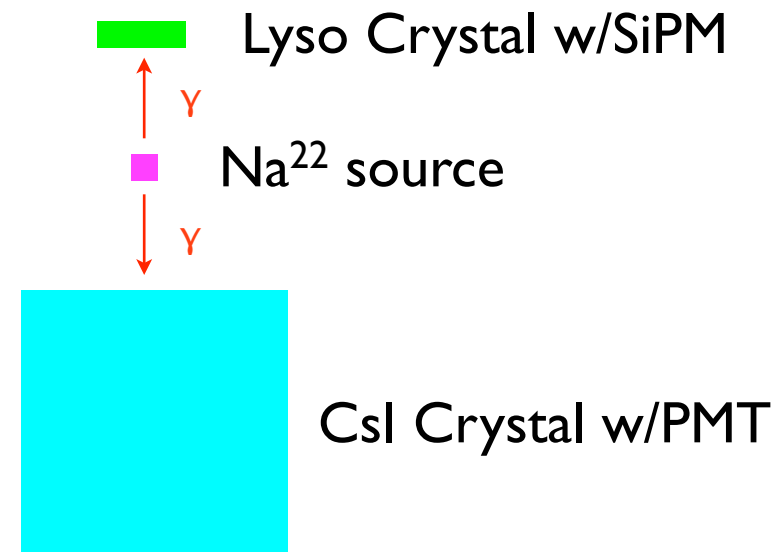
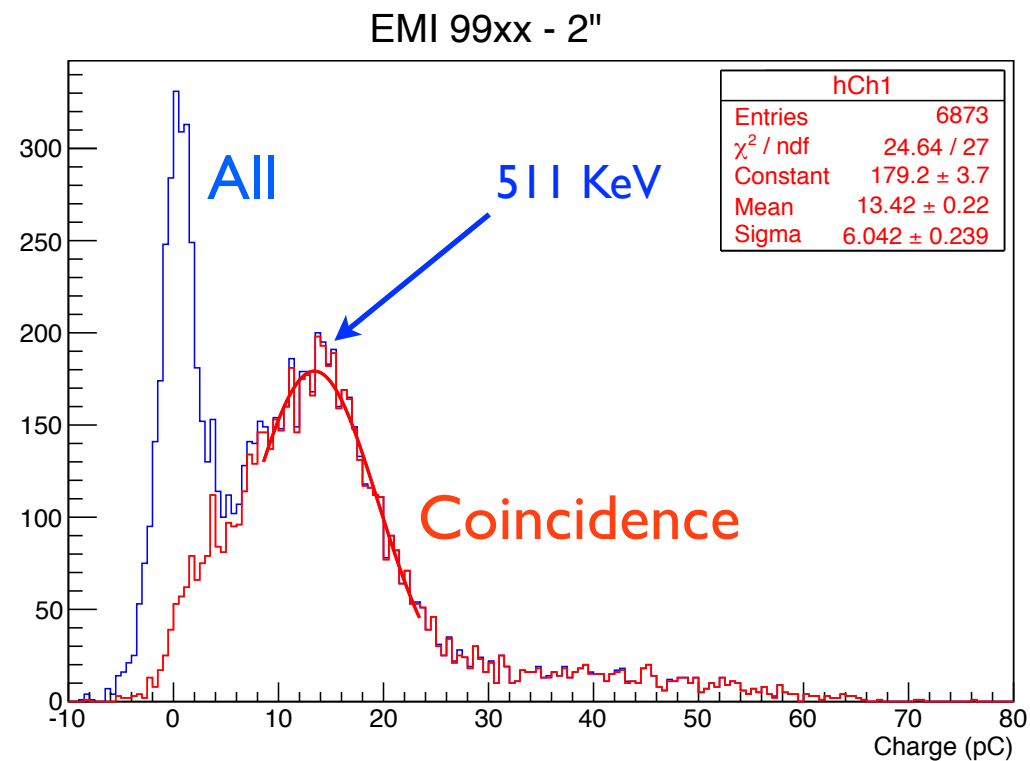
Summary

- 2 Optomaterial Crystals 50x50x300 mm³
- 2 PMT
 - EMI 9902, 1.5'', $G=10^7$
 - EMI 99xx, 2'', $G=\sim 10^6$
- Tested with Na²² source and CR

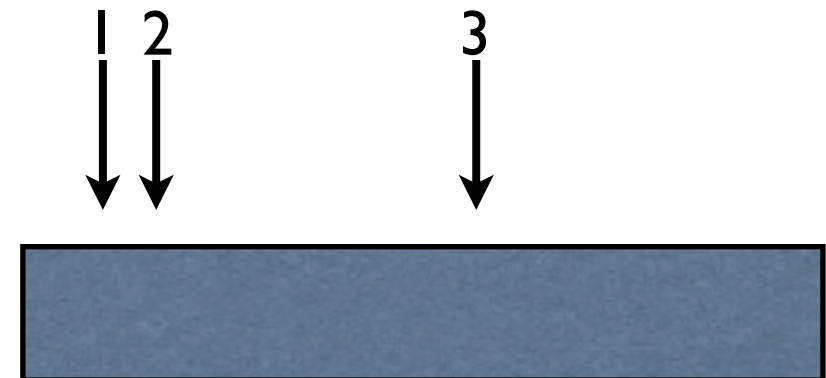
Signals



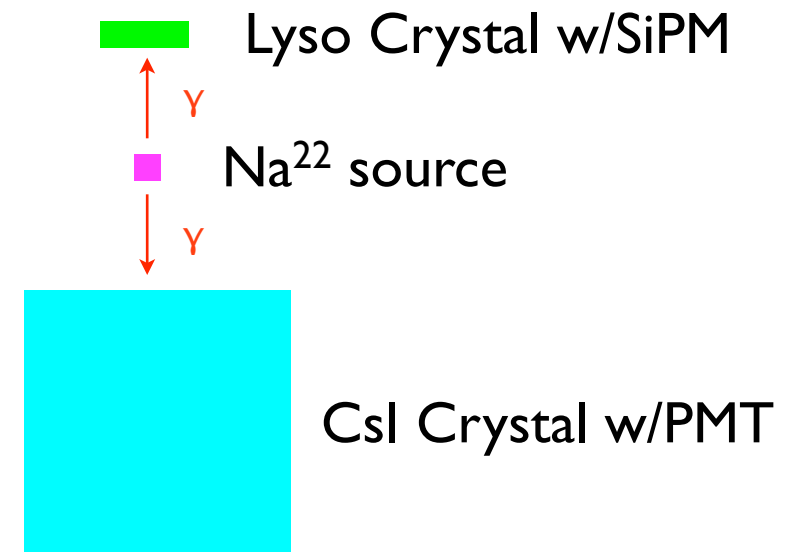
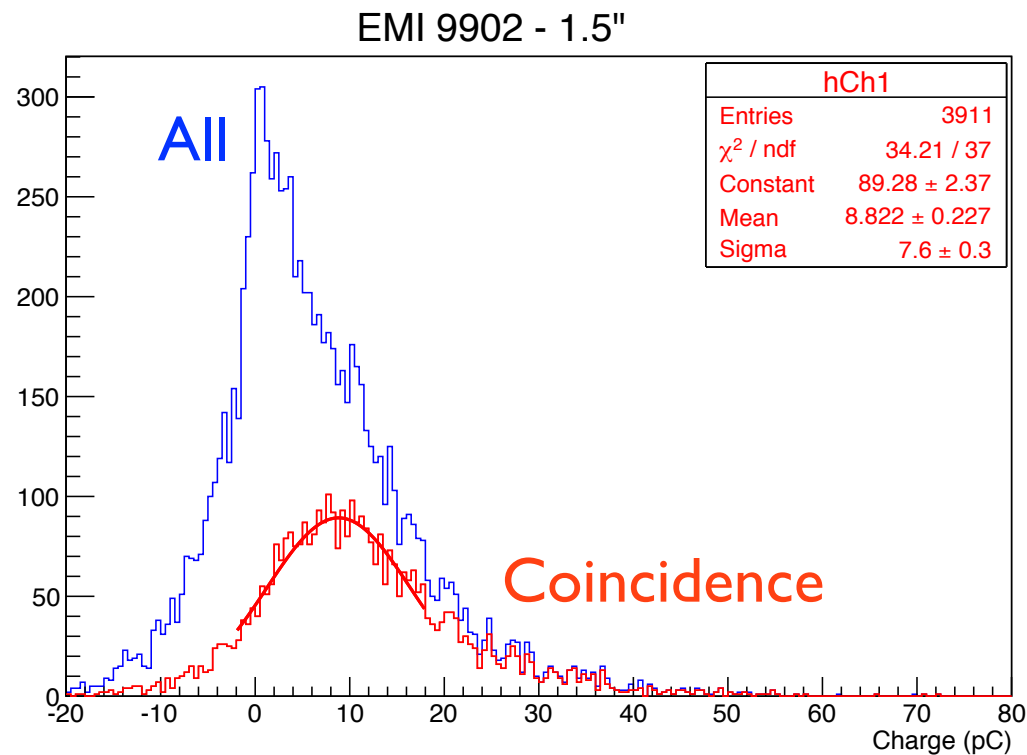
Na²² source - EMI 99xx 2''



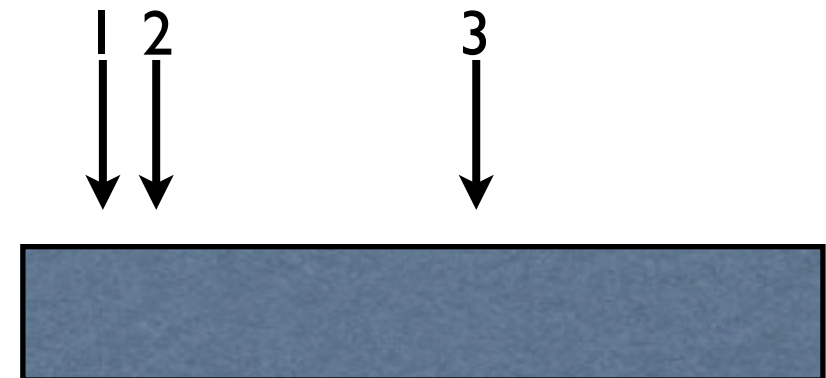
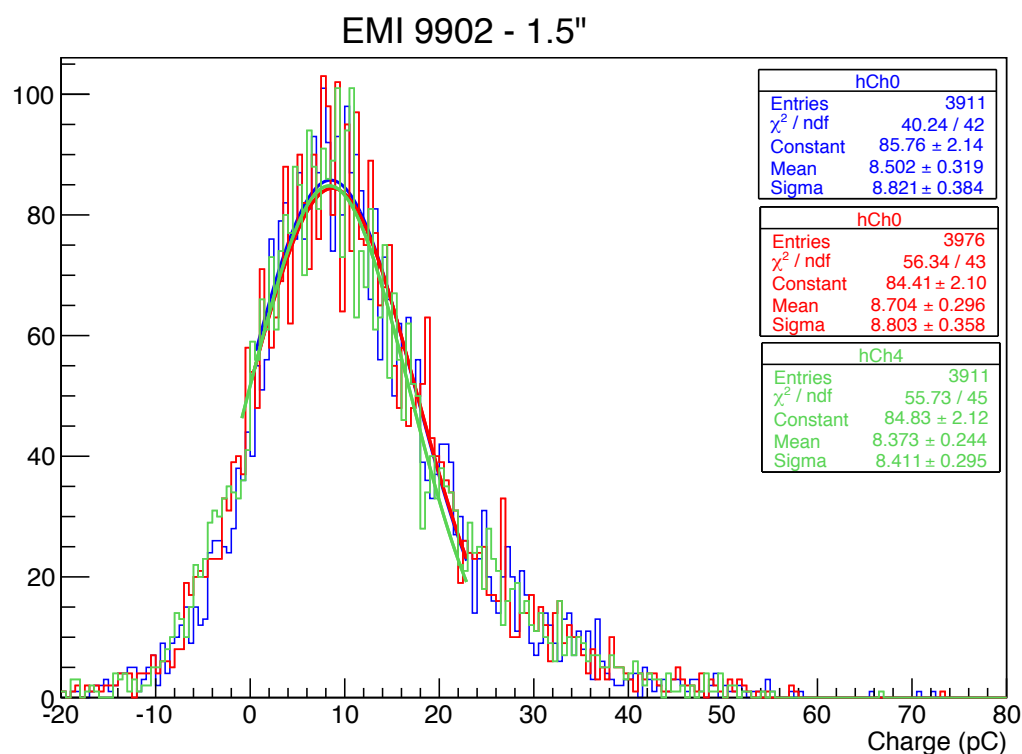
Three positions along z



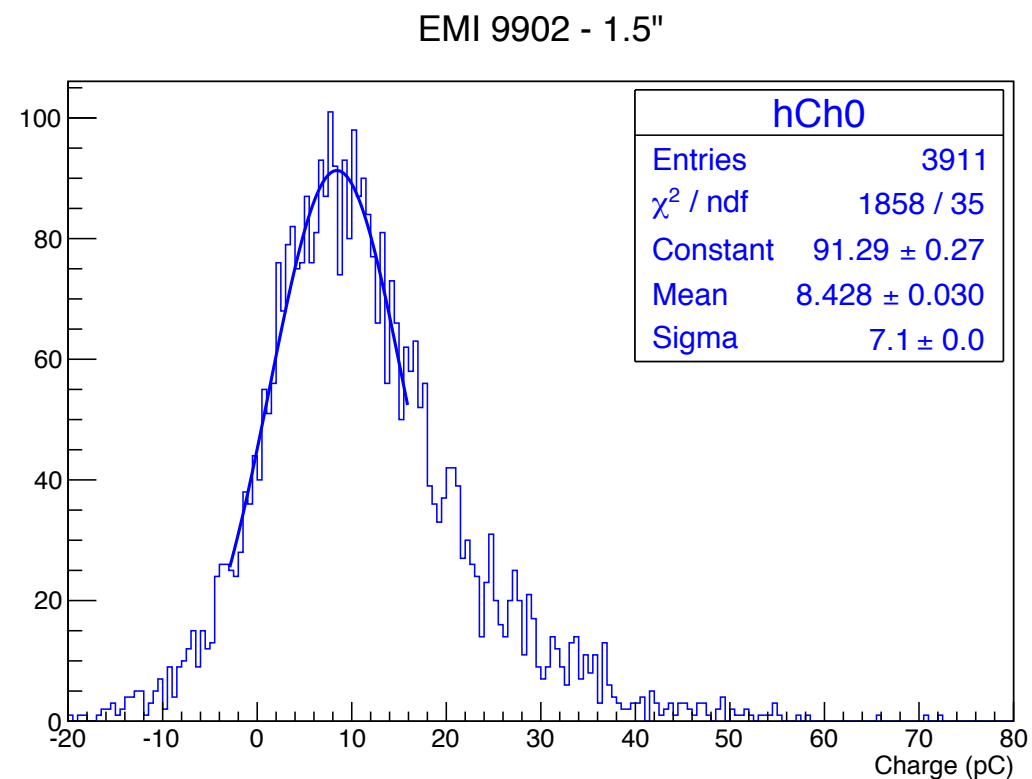
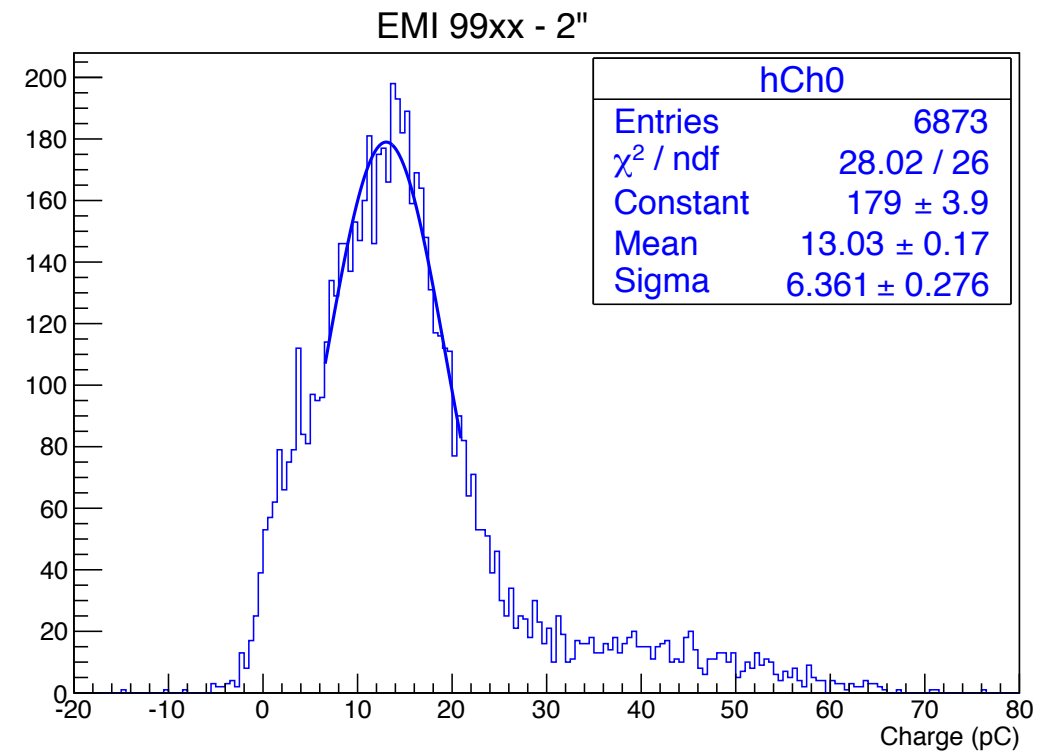
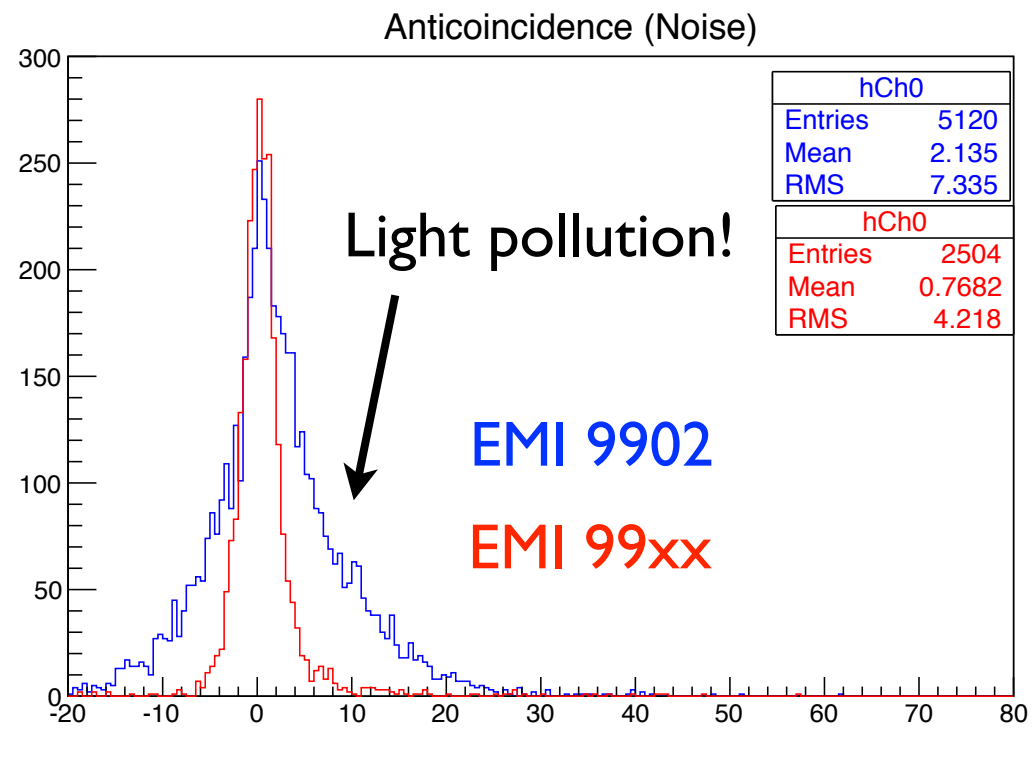
Na²² source - EMI 9902 1.5''



Three positions along z



Energy Resolution



~50% @ 0.5 MeV
ENE ~ 70 KeV

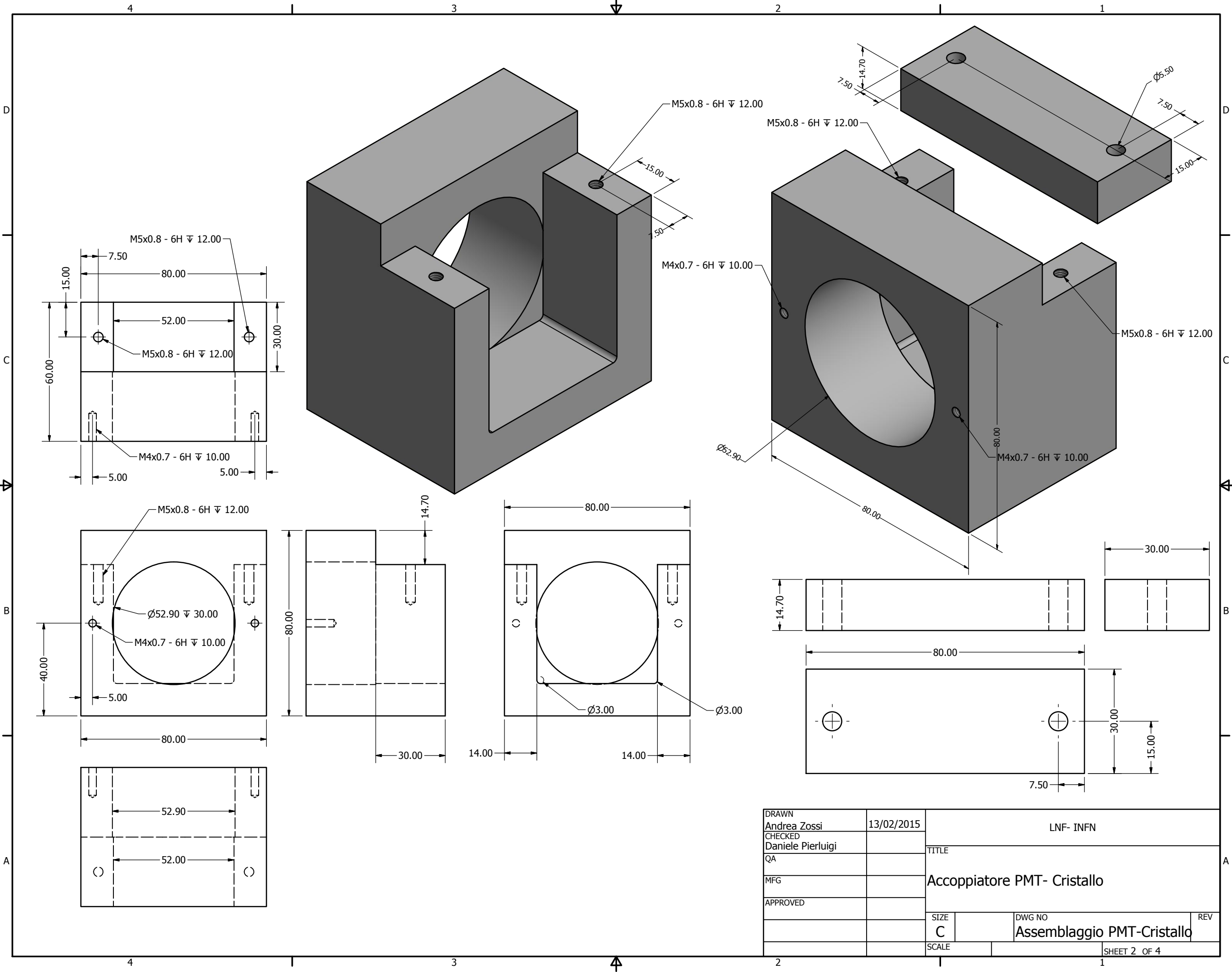
~80% @ 0.5 MeV
(dominated by noise from light pollution)

CR Data - EMI 9902 1.5''

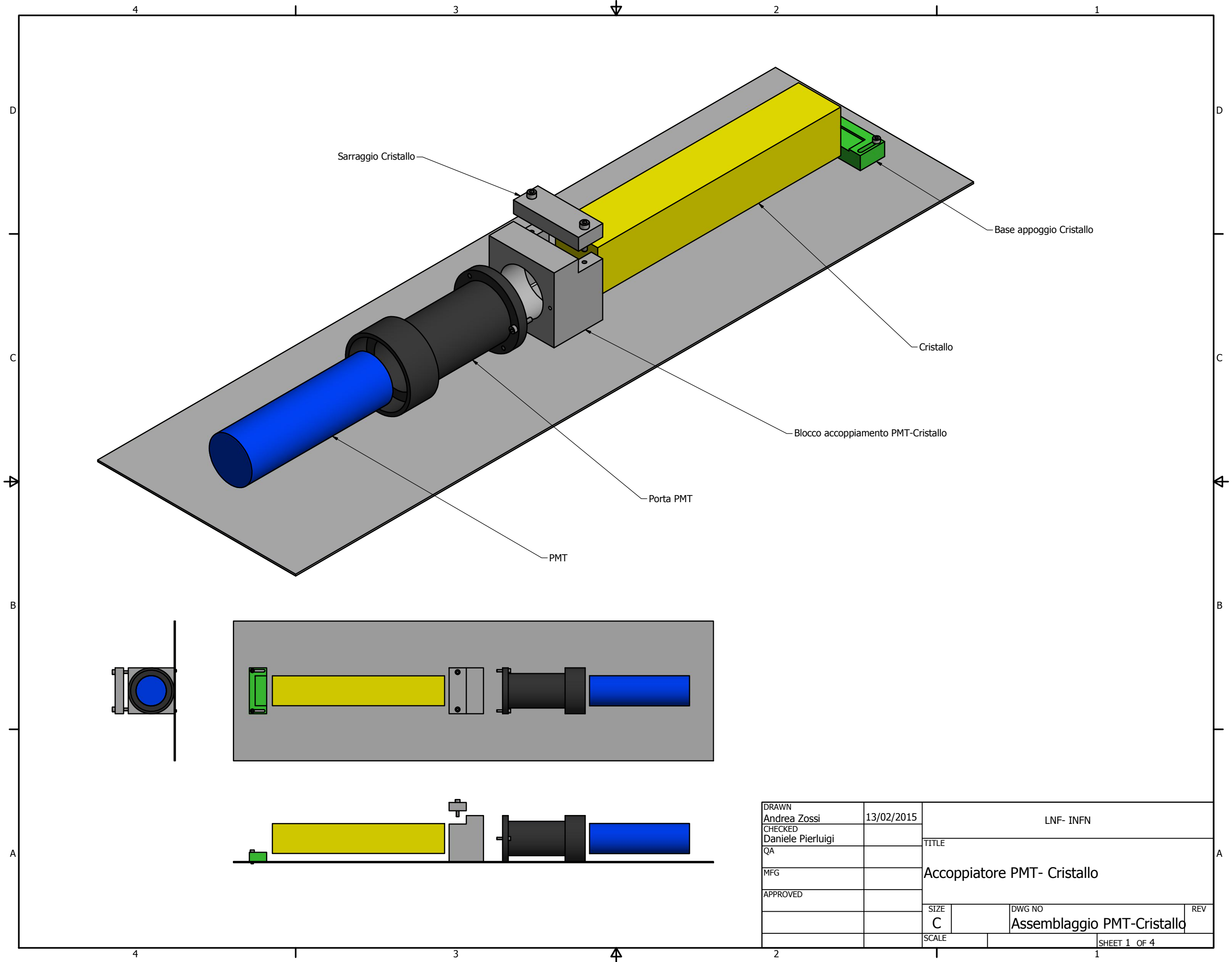
To Be Done Today

Preliminary Conclusions

- Pure CsI with PMT readout gives excellent energy resolution and ENE



DRAWN	Andrea Zossi	13/02/2015	LNF- INFN		
CHECKED	Daniele Pierluigi		TITLE		
QA			Accoppiatore PMT- Cristallo		
MFG					
APPROVED					
			SIZE	DWG NO	REV
			C	Assemblaggio PMT-Cristallo	
			SCALE	SHEET 2 OF 4	



DRAWN	13/02/2015	LNF- INFN		
Andrea Zossi		Accoppiatore PMT- Cristallo		
CHECKED				
Daniele Pierluigi				
QA				
MFG		Assemblaggio PMT-Cristallo		
APPROVED				
		SIZE	DWG NO	REV
		C		
		SCALE	SHEET 1 OF 4	