

# Expected uncertainty of $\nu$ (CNO) rate

CNO uncertainty evaluated with a toy-MC method

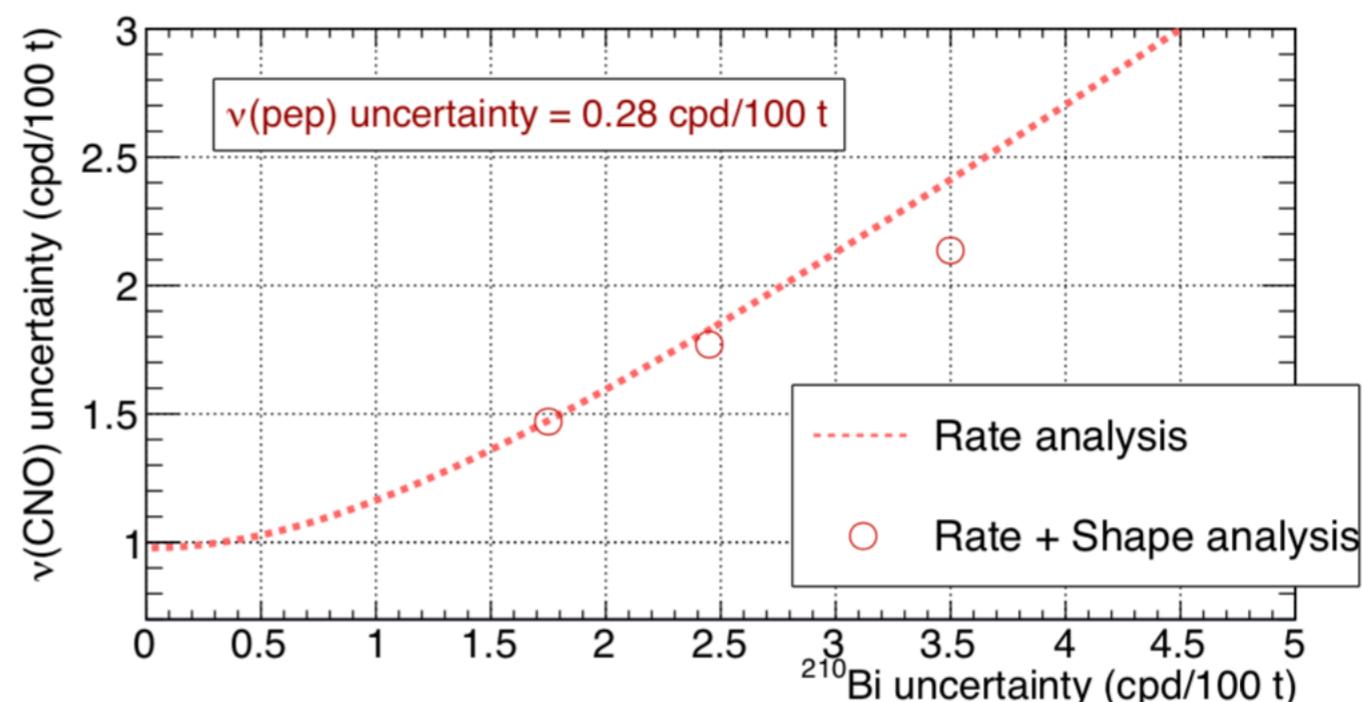
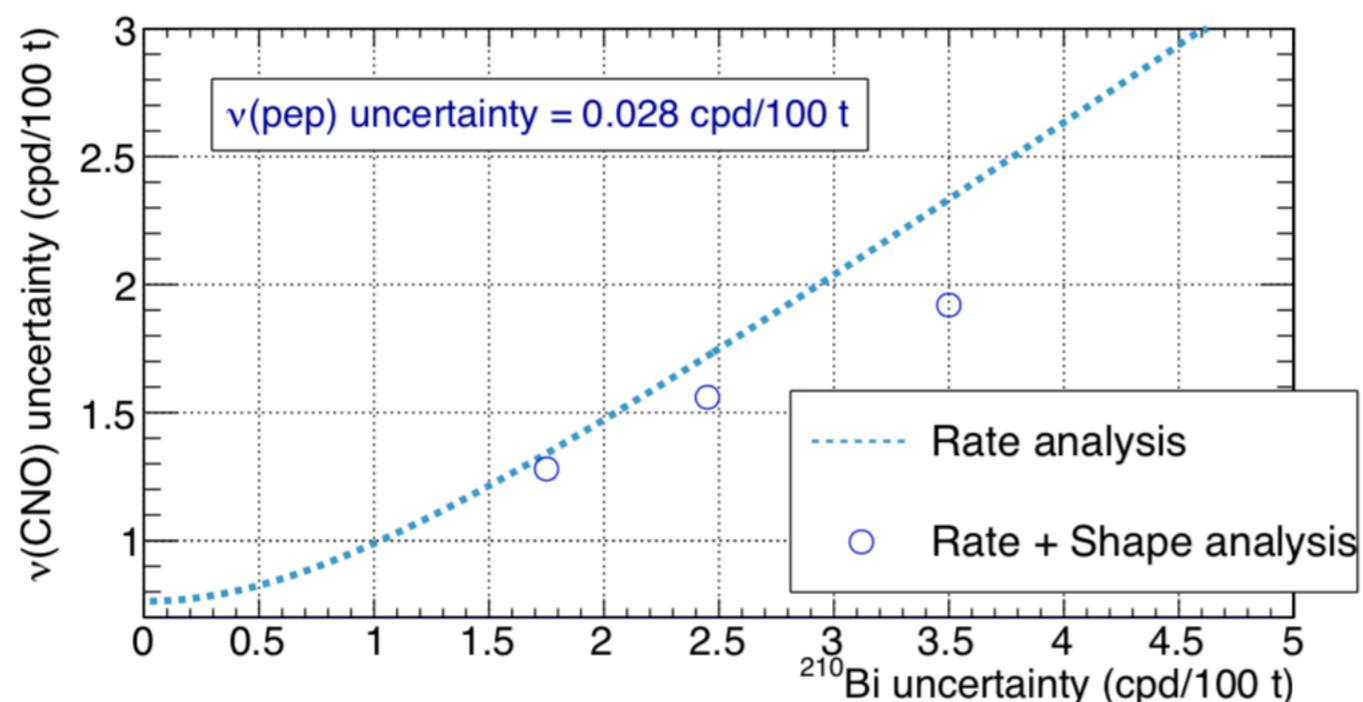
Full multivariate analysis (energy + radial distribution)

Simultaneous fit of the  $^{11}\text{C}$  sub./tagged datasets

Exposure: Jul 2013 - May 2016  
Variables:  $n_{\text{hits}}, r^3$

CNO	Inj. Rate
$^{210}\text{Bi}$	4.9 cpd/100t
Remainder	17.5 cpd/100t
	See last solar analysis

*pep* and  $^{210}\text{Bi}$  constraints folded in the analysis by adding to the likelihood two independent multiplicative Gaussian penalty terms on the  $^{210}\text{Bi}$  and the  $\nu(\text{pep})$  rate.



**Shape information** helps the CNO sensitivity if the  $^{210}\text{Bi}$  constraint is weaker than 2.5 cpd/100t

(Systematic uncertainties not included)