On the systematic error numbers

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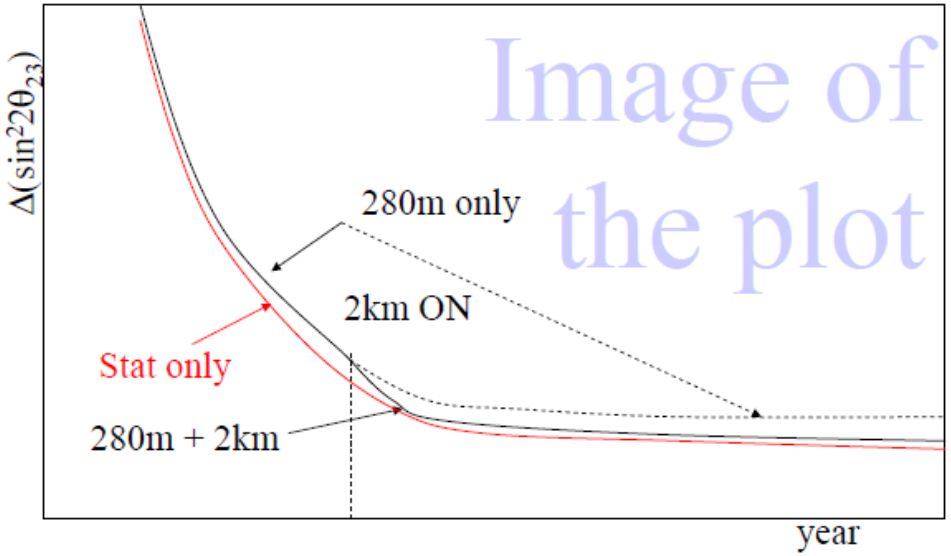
Dec.20, 2006 2KM meeting

At the previous 2km meeting ….

Time line (2-2): accuracy of $\sin^2 2\theta_{23}$ with CASE-2(beam) + 280m(from 2009) + 2km(from 2012?) (syst errors are 150% of the "goal values" ?)



Systematic errors;

"goal values"

"easily (?) achievable values"

We need to discuss with Nakaya-san about the 280 numbers.

TK discussed with Nakaya-san on Dec.14 @Kyoto.

Recommended ND280 systematic error numbers

	ND280		2KM	
	“goal”	“easy”	“goal”	“easy”
ν_e appearance BG	10%	15%	5%	7.5%
ν_μ normalization	5%	7.5%		
ν_μ spectrum distortion ν_μ spectrum width	14% 7%	20% 10%		
Energy scale	2%	3%		2.1%
ν_μ Non-QE/QE	5%	10%		

Blue from 280 proposal

Appendix:
Some comments on TK's file for the Dec.07 meeting

- Page 7: We should stress that water Ch of SK type is only possible at the 2km position.

- Page 12-14: The measurement of the 1ring μ-like spectrum in the 2km water Ch. is very important, since the 280m prediction on the QE and non-QE fraction can only be checked by comparing with the 1ring μ-like spectrum. If the prediction on non-QE/QE is wrong, the spectrum predicted by FGD and measured by 2km do not agree.

- Page 15: Although it might not be easy to write properly, from the K2K experience, it is very important that we have many ways to check the non-QE/QE ratio measurements.

- page 23: In order to get the general agreement from the collaboration, it is good to have the strategy discussed in page 23.

- page 23 and later: It "might be" good to write that some 2km water Ch. hardware are related to the R&D of Hyper-K.