SK event expectation

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*** (10-Mar.-00) Bug fixed in the following calculation ***

** SKexpect(June) = 4.87 $\rightarrow$ 5.14 ***

** SKexpect(Nov.) = 6.08 $\rightarrow$ 6.29 ***

$$SKexp = \frac{\mathrm{N}_{Fe} - \mathrm{cosm.}\mu}{\epsilon_{Fe}} \times \frac{\mathrm{POT}_{SK}}{\mathrm{POT}_{Fe}} \times \left(\frac{Far}{Near}\right) \times \epsilon_{SK}$$

	June200kA June4-June27	Nov.250kA Oct29-Nov24
N_{Fe}	27985	28077
$\mathrm{cosm.}\mu$	27	23
ϵ_{Fe}	0.218	0.224
POT_{Fe}	3.02×10^{18}	2.75×10^{18}
POT_{SK}	3.00×10^{18}	3.59×10^{18}
$\left(\frac{Far}{Near}\right)$	4.97×10^{-5}	4.70×10^{-5}
ϵ_{SK}	0.811	0.818
SK exp	5.14 $\pm 0.03(stat)^{+0.81}_{-0.88}(sys)$	6.29 $\pm 0.04(stat)^{+0.99}_{-1.09}(sys)$

Systematic error list for SK expectation

$\sigma_{Fe}/\sigma_{H_2O}$	$\sim$	10%
(cross section & NC/CC ratio)		
$\Delta V/V$	$<$	5%
ϵ_{Fe}	$\sim$	5%
tracking eff.	$\sim$	3%
POT normalize	$\sim$	$\binom{June 0.3\%}{Nov.2\%}$
$\left(\frac{Far}{Near}\right)$	$\sim$	$\binom{+8\%}{-10\%}$
ϵ_{SK}	$\sim$	5%
Total (June, Nov)		$\binom{+16\%}{-17\%}$