

Calibration WG report

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Calibration Group

- 16 people in the discussion session
- Contact persons:
 - Hide T.
 - Hiro T.
 - Shunichi M.
 - Neil M.

$$j_2 = \frac{1}{2} \quad \lim_{\epsilon \rightarrow 0} \chi[A(\dots)] = \chi[B_{j_2}^L(\dots)] + \chi[A(E+1, \frac{1}{2}, 0)]$$

- QE, gain, timing
- Water ^{transp} quality; att, Rayle, w/ several wavelengths

⊕ Position dependence

◦ PMT angular response (pre-installation?)

◦ Light reflection (PMT, tyvek, black sheet etc)

◦ Energy {
 low: DT, Linac, ¹⁶N (incl. spallation)
 High: Cosmic μ (incl. Michel.e) π^0

(cone generator)
 ◦ vertex resolution

◦ PID

Memo

- Baseline: deploy SK calibration methods
 - Identified the preliminary goals of calibration
 - Detector (PMT, water, etc) calibration
 - Energy, vertex,... calibration
 - Collect ideas of possible calibration systems by referring existing calibration systems:
 - SNO, Daya Bay, Borexino
 - → Compile the ideas & make baseline design
 - in this year
- Mailing list, (regular?) video conference
- Plan to build prototype calib system