

flux table and MC for 2km detector and SK

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New flux table

Ichikawa_san distributed new neutrino flux files for SK, 280m and 2km detector. Please see

<http://jnusrv01.kek.jp/jhfnu/internal/nubeam/flux>

[/04a/flux04a.OA2.5.40gev.sk.tar.gz](http://jnusrv01.kek.jp/jhfnu/internal/nubeam/flux/04a/flux04a.OA2.5.40gev.sk.tar.gz) (SK)

[/04a/flux04a.OA2.5.40gev.nd1.tar.gz](http://jnusrv01.kek.jp/jhfnu/internal/nubeam/flux/04a/flux04a.OA2.5.40gev.nd1.tar.gz) (2km)

[/04a/flux04a.OA2.5.40gev.nd5.tar.gz](http://jnusrv01.kek.jp/jhfnu/internal/nubeam/flux/04a/flux04a.OA2.5.40gev.nd5.tar.gz) (280m)

(flux file for 2km detector will be replaced soon.)

main difference from 03a are

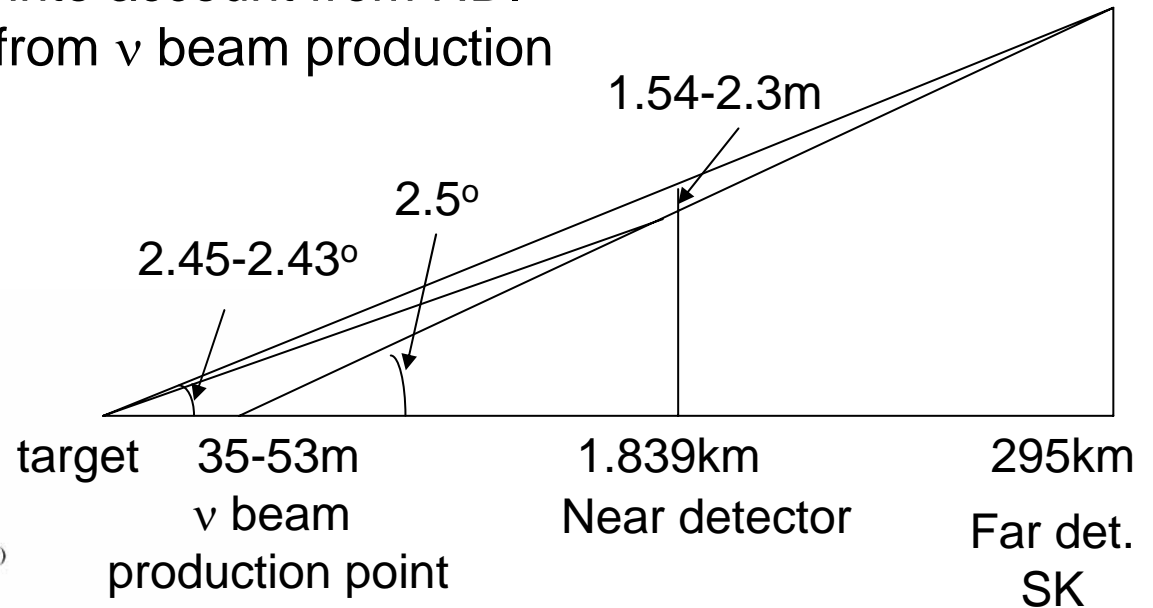
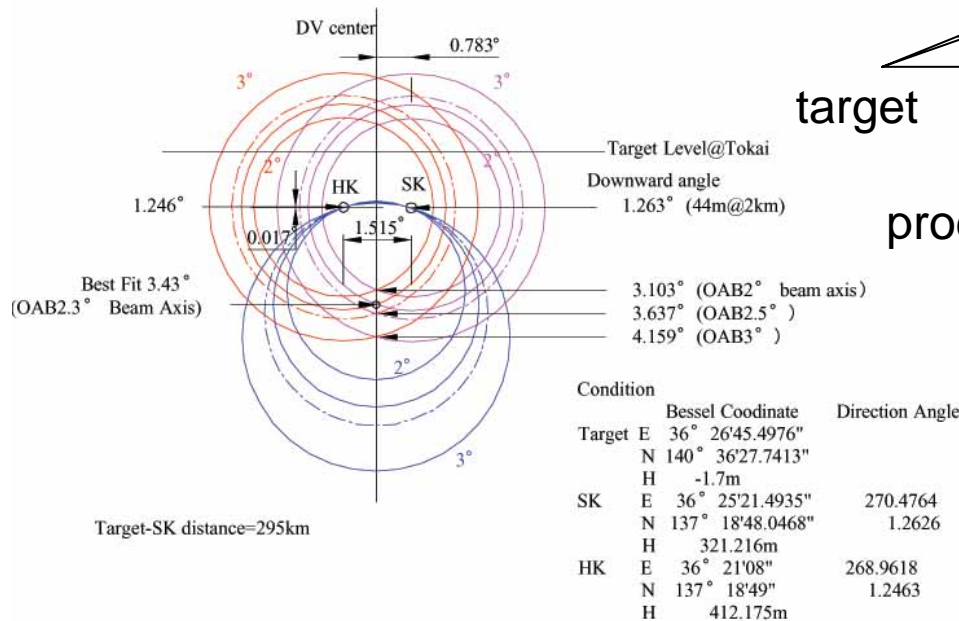
Horn aluminum (3mm thickness) is included.

Therefore we can use absolute flux (since the shape of the horn is not yet finalized, absolute flux might be decreased for the real case.)

see E-mail from Ichikawa_san (2004/May/22 (JST))

Neutrino beam production position

Neutrinos are generated in the decay volume, not at target position. This difference is negligible from SK, but should be taken into account from ND. ND should be put on the line from ν beam production point to SK.



Center of flux and vector for 2km are located the position assuming the mean decay point is 53m from target.

NEUT vector file

Hayato_san will put vector file for 2km, 280m detectors and SK into

<http://jnusrv01.kek.jp/~jnurep/vectors/04a/40GeV/>

These vectors are generated with

- $M_a=1.1$ for QE and 1π production,
- w/o Bordek correction on DIS
- w/o Marteau correction on coherent π production
(NEUT/NUCEFF : atm/pd library Vr. 04a)