Parameter	1 σ value	BANFF -3σ		BANFF tuned -1σ		BANFF tuned +1σ		BANFF tuned +3σ	
All syst		152.363 00	−71.697 90(%)	338.888 00	−37.050 00(%)	813.880 00	51.182 00(%)	1687.860 00	213.526 00(%)
BANFF 0, SK numu flux, 0.0 - 0.4 GeV	0.098 73	533.788 00	−0.846 88	536.828 00	−0.282 29	539.867 00	0.282 29	542.906 00	0.846 88
BANFF 1, SK numu flux, 0.4 - 0.5 GeV	0.103 49	524.548 00	−2.563 25	533.748 00	−0.854 42	542.947 00	0.854 42	552.146 00	2.563 25
BANFF 2, SK numu flux, 0.5 - 0.6 GeV	0.096 44	512.040 00	−4.886 67	529.578 00	−1.628 90	547.116 00	1.628 90	564.655 00	4.886 67
BANFF 3, SK numu flux, 0.6 - 0.7 GeV	0.086 70	507.295 00	−5.768 11	527.996 00	−1.922 70	548.698 00	1.922 70	569.400 00	5.768 11
BANFF 4, SK numu flux, 0.7 - 1.0 GeV	0.113 05	483.698 00	−10.151 20	520.131 00	−3.383 70	556.564 00	3.383 70	592.996 00	10.151 20
BANFF 5, SK numu flux, 1.0 - 1.5 GeV	0.091 75	525.502 00	−2.386 00	534.066 00	−0.795 33	542.629 00	0.795 33	551.192 00	2.386 00
BANFF 6, SK numu flux, 1.5 - 2.5 GeV	0.070 17	533.144 00	−0.966 46	536.613 00	−0.322 15	540.082 00	0.322 15	543.550 00	0.966 46
BANFF 7, SK numu flux, 2.5 - 3.5 GeV	0.073 68	536.044 00	−0.427 93	537.579 00	−0.142 64	539.115 00	0.142 64	540.651 00	0.427 93
BANFF 8, SK numu flux, 3.5 - 5.0 GeV	0.087 37	536.083 00	−0.420 67	537.592 00	−0.140 22	539.102 00	0.140 22	540.612 00	0.420 67
BANFF 9, SK numu flux, 5.0 - 7.0 GeV	0.097 94	537.688 00	−0.122 52	538.127 00	−0.040 84	538.567 00	0.040 84	539.007 00	0.122 52
BANFF 10, SK numu flux, 7.0 - 30.0 GeV	0.114 36	538.286 00	−0.011 38	538.327 00	−0.003 79	538.368 00	0.003 79	538.409 00	0.011 38
BANFF 11, SK numubar flux, 0.0 - 0.7 GeV	0.102 58	537.604 00	−0.138 14	538.099 00	−0.046 05	538.595 00	0.046 05	539.091 00	0.138 14
BANFF 12, SK numubar flux, 0.7 - 1.0 GeV	0.078 53	537.713 00	−0.117 86	538.136 00	−0.039 29	538.559 00	0.039 29	538.982 00	0.117 86
BANFF 13, SK numubar flux, 1.0 - 1.5 GeV	0.084 45	537.431 00	−0.170 23	538.042 00	−0.056 74	538.653 00	0.056 74	539.264 00	0.170 23
BANFF 14, SK numubar flux, 1.5 - 2.5 GeV	0.085 57	537.486 00	−0.159 99	538.060 00	−0.053 33	538.634 00	0.053 33	539.209 00	0.159 99
BANFF 15, SK numubar flux, 2.5 - 30.0 GeV	0.086 43	537.833 00	−0.095 52	538.176 00	−0.031 84	538.519 00	0.031 84	538.861 00	0.095 52
BANFF 16, SK nue flux, 0.0 - 0.5 GeV	0.089 70	538.347 00	−0.000 11	538.347 00	$-3.533\,10 \times 10^{-5}$	538.347 00	$3.533\,10 \times 10^{-5}$	538.348 00	0.000 11
BANFF 17, SK nue flux, 0.5 - 0.7 GeV	0.089 95	538.346 00	−0.000 26	538.347 00	$-8.615\,00 \times 10^{-5}$	538.348 00	$8.615\,00 \times 10^{-5}$	538.349 00	0.000 26
BANFF 18, SK nue flux, 0.7 - 0.8 GeV	0.085 96	538.346 00	−0.000 19	538.347 00	$-6.243\,30 \times 10^{-5}$	538.348 00	$6.243\,30 \times 10^{-5}$	538.348 00	0.000 19
BANFF 19, SK nue flux, 0.8 - 1.5 GeV	0.080 92	538.340 00	−0.001 33	538.345 00	−0.000 44	538.350 00	0.000 44	538.354 00	0.001 33
BANFF 20, SK nue flux, 1.5 - 2.5 GeV	0.078 97	538.339 00	−0.001 61	538.344 00	−0.000 54	538.350 00	0.000 54	538.356 00	0.001 61
BANFF 21, SK nue flux, 2.5 - 4.0 GeV	0.083 85	538.341 00	−0.001 19	538.345 00	−0.000 40	538.349 00	0.000 40	538.354 00	0.001 19
BANFF 22, SK nue flux, 4.0 - 30.0 GeV	0.093 89	538.344 00	−0.000 63	538.346 00	−0.000 21	538.348 00	0.000 21	538.351 00	0.000 63
BANFF 23, SK nuebar flux, 0.0 - 2.5 GeV	0.074 03	538.346 00	−0.000 20	538.347 00	$-6.725\,10 \times 10^{-5}$	538.348 00	$6.725\,10 \times 10^{-5}$	538.348 00	0.000 20
BANFF 24, SK nuebar flux, 2.5 - 30.0 GeV	0.128 42	538.345 00	−0.000 48	538.346 00	−0.000 16	538.348 00	0.000 16	538.350 00	0.000 48
BANFF; Norm; 2p2h	1	483.280 00	−10.229 00	483.280 00	−10.229 00	593.415 00	10.229 00	703.549 00	30.686 90
BANFF; CA5 RES	0.148 52	516.818 00	−3.999 06	530.128 00	−1.526 80	547.610 00	1.720 50	569.263 00	5.742 76
BANFF; Norm; BgRES Isospin 1/2	0.307 69	534.930 00	−0.634 78	535.942 00	−0.446 71	542.018 00	0.681 82	553.156 00	2.750 80
BANFF, Ma QE	0.025 00	514.814 00	−4.371 43	530.712 00	−1.418 30	545.775 00	1.379 80	560.019 00	4.025 67
BANFF, Ma RES	0.157 90	518.549 00	−3.677 59	532.167 00	−1.148 00	543.972 00	1.044 90	553.573 00	2.828 27
BANFF; Fermi Momentum	0.057 78	551.327 00	2.411 12	545.284 00	1.288 50	531.071 00	−1.351 50	515.764 00	−4.194 95
BANFF; Shape; CC Oth	0.400 00	536.646 00	−0.316 03	537.766 00	−0.108 05	538.929 00	0.108 05	540.092 00	0.324 15
BANFF; Norm, CC Coh	0.300 00	537.853 00	−0.091 77	538.183 00	−0.030 59	538.512 00	0.030 59	538.841 00	0.091 77
BANFF; Norm, NC Coh	0.300 00	538.347 00	$-4.275\,41 \times 10^{-5}$	538.347 00	$-1.425\,10 \times 10^{-5}$	538.347 00	$1.425\,10 \times 10^{-5}$	538.348 00	$4.275\,41 \times 10^{-5}$
BANFF; Norm, NC Oth	0.300 00	537.317 00	−0.191 34	538.004 00	−0.063 78	538.691 00	0.063 78	539.377 00	0.191 34
BANFF; Norm, ν_e To ν_μ	0.028 28	538.347 00	$-6.918\,76 \times 10^{-5}$	538.347 00	$-2.306\,30 \times 10^{-5}$	538.347 00	$2.306\,30 \times 10^{-5}$	538.348 00	$6.918\,76 \times 10^{-5}$
BANFF; Norm, $\bar{\nu}_e$ To $\bar{\nu}_\mu$	0.028 28	538.347 00	$-3.222\,77 \times 10^{-6}$	538.347 00	$-1.074\,30 \times 10^{-6}$	538.347 00	$1.074\,30 \times 10^{-6}$	538.347 00	$3.222\,77 \times 10^{-6}$
BANFF; Norm; 2p2hBar	1	537.250 00	−0.203 83	537.250 00	−0.203 82	539.445 00	0.203 82	541.639 00	0.611 47
BANFF; BeRPA A	0.118 00	446.484 00	−17.064 00	507.726 00	−5.688 00	568.969 00	5.688 00	630.211 00	17.064 00
BANFF; BeRPA B	0.210 00	440.008 00	−18.266 90	505.568 00	−6.088 90	571.127 00	6.089 00	636.687 00	18.266 90
BANFF; BeRPA D	0.169 50	481.448 00	−10.569 30	519.381 00	−3.523 10	557.314 00	3.523 10	595.247 00	10.569 40
BANFF; BeRPA E	0.352 00	535.343 00	−0.558 04	537.143 00	−0.223 68	539.554 00	0.224 14	541.973 00	0.673 44
BANFF; Shape; 2p2h	3	542.805 00	0.828 11	540.576 00	0.414 05	535.115 00	−0.600 47	531.882 00	−1.200 94
BANFF; Norm; 2p2h C to O	0.200 00	504.648 00	−6.259 67	527.114 00	−2.086 60	549.580 00	2.086 60	572.046 00	6.259 67
SKDet + FSI/SI 0; E_{reco}(0.00 - 0.40)GeV; $\nu_\mu/\bar{\nu}_\mu$ CCQE ($1R_\mu$)	0.008 72	537.712 00	−0.118 04	538.135 00	−0.039 35	538.559 00	0.039 35	538.983 00	0.118 04
SKDet + FSI/SI 1; E_{reco}(0.40 - 1.10)GeV; $\nu_\mu/\bar{\nu}_\mu$ CCQE ($1R_\mu$)	0.007 48	529.657 00	−1.614 29	535.450 00	−0.538 10	541.244 00	0.538 10	547.038 00	1.614 29
SKDet + FSI/SI 2; E_{reco}(1.10 - 30.00)GeV; $\nu_\mu/\bar{\nu}_\mu$ CCQE ($1R_\mu$)	0.007 19	536.870 00	−0.274 34	537.855 00	−0.091 45	538.840 00	0.091 45	539.824 00	0.274 34
SKDet + FSI/SI 3; E_{reco}(0.00 - 30.00)GeV; $\nu_\mu/\bar{\nu}_\mu$ CCnQE ($1R_\mu$)	0.169 05	511.308 00	−5.022 71	529.334 00	−1.674 20	547.360 00	1.674 20	565.387 00	5.022 71
SKDet + FSI/SI 4; E_{reco}(0.00 - 30.00)GeV; $\nu_e/\bar{\nu}_e$/sigν_e CC ($1R_\mu$)	1.005 48	538.333 00	−0.002 57	538.343 00	−0.000 86	538.352 00	0.000 86	538.361 00	0.002 57
SKDet + FSI/SI 5; E_{reco}(0.00 - 30.00)GeV; all NC ($1R_\mu$)	0.659 60	528.935 00	−1.748 30	535.210 00	−0.582 77	541.485 00	0.582 77	547.759 00	1.748 30