

Update on LIV systematics
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Position Shift

- Considering making high-energy (GP) position to be the default
 - All-bins position is now a systematic
 - Re-ran all systematics for new position
- Also added PMT-efficiency run-number systematics

Combined Results

Combined Limits	3 Sigma	95.00%
Nominal	180	239
0 BP	188	246
0.5 BP	181	241
0.75 BP	178	237
1.5 BP	172	224
Thresh 0.15	180	239
Thresh 0.25	178	235
Qunc 0.0	178	246
Qunc 0.6	175	231
run004255	181	237
run005214	175	226
run005689	175	226
run006383	180	228
run006801	180	235
run007578	188	231
Swapped	218	248
Shifted	212	281

Combined Results (Old Position)

Combined Limits	3 Sigma	95.00%
Nominal	212	281
0 BP	229	301
0.5 BP	218	288
0.75 BP	214	283
1.5 BP	205	272
Thresh 0.15	210	279
Thresh 0.25	211	280
Qunc 0.0	210	278
Qunc 0.6	202	270
run004255	203	267
run005214	201	267
run005689	201	267
run006383	204	272
run006801	210	277
run007578	204	270
Swapped	218	275
Shifted	183	239

Cause of Shift Systematic

- Moving to high-energy position tends to make limits worse
- Why does this occur?
 - Could be softer spectrum due to less significance in lower bins
 - Look at fits
- Plotted ratio of fits and compared
- Less flux in shifted fits



