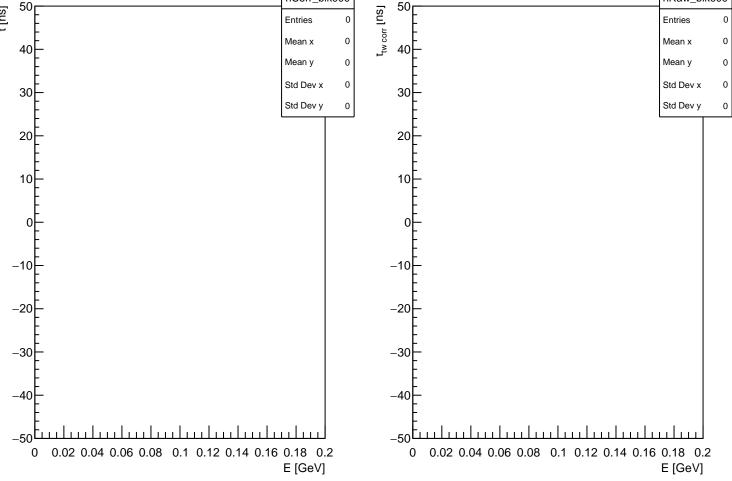
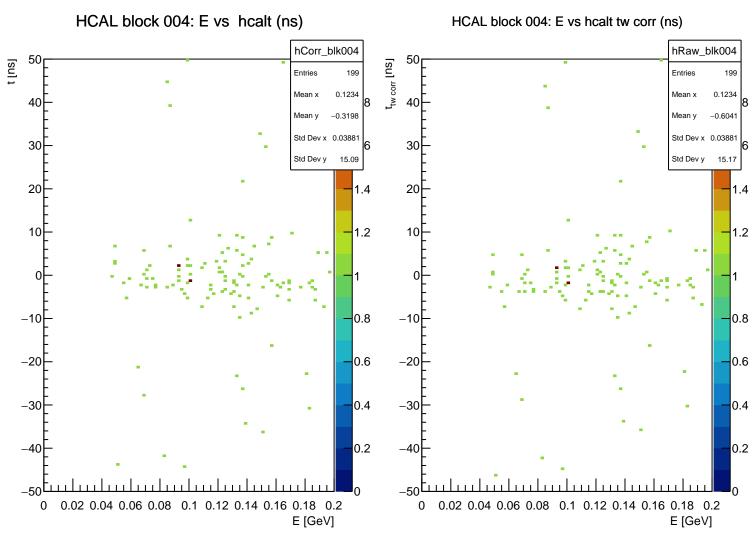
HCAL block 000: E vs hcalt (ns) HCAL block 000: E vs hcalt tw corr (ns) hCorr\_blk000 hRaw\_blk000  $\tau_{\text{tw corr}} \, \text{lns]}$ 50 Entries Entries Mean x Mean x Mean y Mean y Std Dev x Std Dev x 30 Std Dev y Std Dev y 20 10 -10-20



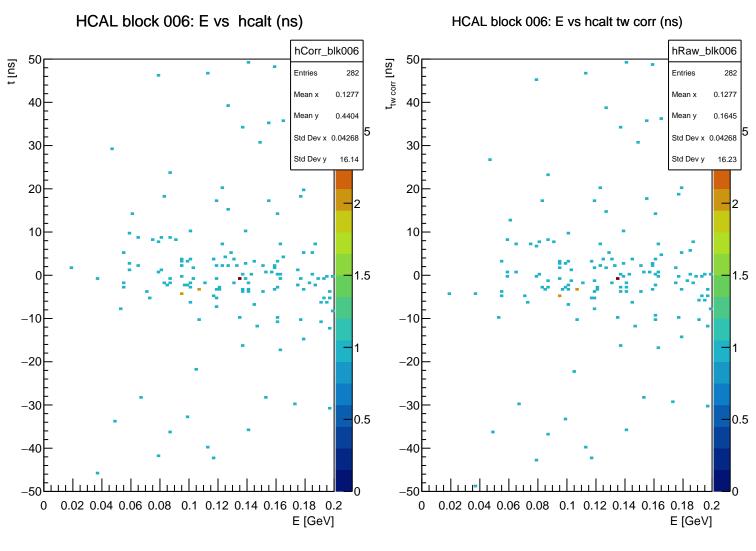
HCAL block 001: E vs hcalt (ns) HCAL block 001: E vs hcalt tw corr (ns) hCorr\_blk001 hRaw\_blk001 50 50 t<sub>tw corr</sub> [ns] Entries 147 Entries 147 0.1409 Mean x Mean x 0.1409 40 Mean y Mean y -1.558-1.628Std Dev x 0.04091 Std Dev x 0.04091 30 30 Std Dev y 13.96 Std Dev y 13.81 0.7 20 0.7 20 0.6 0.6 10 10 0.5 0.5 -10 0.4 0.4 -10-200.3 -200.3 -30 0.2 -300.2 0.1 0.1 -40-400.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 0.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 E [GeV] E [GeV]

HCAL block 002: E vs hcalt (ns) HCAL block 002: E vs hcalt tw corr (ns) hCorr\_blk002 hRaw\_blk002 50 50 t<sub>tw corr</sub> [ns] Entries 143 Entries 143 0.1091 Mean x Mean x 0.1088 40 0.4627 Mean y Mean y 0.3582 Std Dev x 0.04427 Std Dev x 0.04412 30 30 Std Dev y Std Dev y 14.33 15.19 20 1.4 20 1.4 10 1.2 10 1.2 -100.8 0.8 -100.6 -200.6 -20-30 0.4 -300.4 0.2 0.2 -40-400.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 0.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 E [GeV] E [GeV]

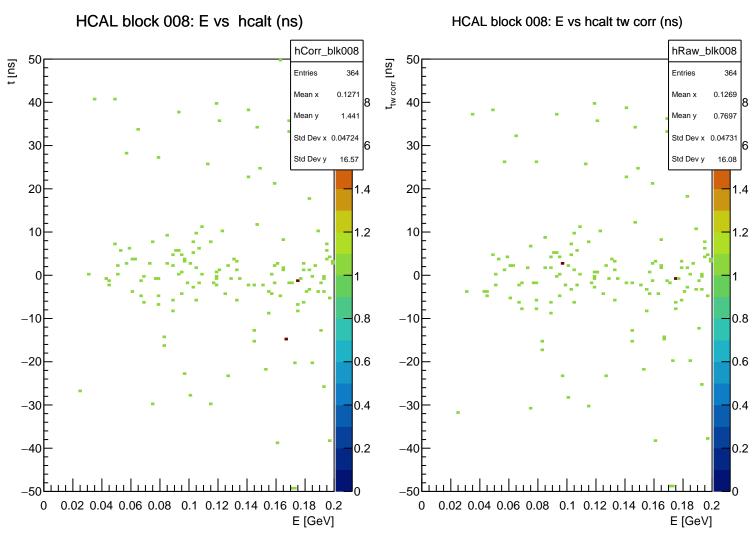
HCAL block 003: E vs hcalt (ns) HCAL block 003: E vs hcalt tw corr (ns) hCorr\_blk003 hRaw\_blk003 50 50 t<sub>tw corr</sub> [ns] Entries 248 Entries 248 0.1204 Mean x Mean x 0.1198 40 Mean y 1.162 Mean y 1.084 Std Dev x 0.04418 Std Dev x 0.04454 30 30 Std Dev y Std Dev y 15.45 15.89 20 1.4 20 1.4 1.2 10 1.2 10 -10 0.8 0.8 -100.6 -20 0.6 -20-30 0.4 -300.4 0.2 0.2 -40-400.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 0.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 E [GeV] E [GeV]



HCAL block 005: E vs hcalt (ns) HCAL block 005: E vs hcalt tw corr (ns) hCorr\_blk005 hRaw\_blk005 50 50 t<sub>tw corr</sub> [ns] Entries Entries 226 Mean x 0.1096 Mean x 0.1096 40 Mean y Mean y 1.898 1.373 Std Dev x 0.03815 Std Dev x 0.03815 30 30 Std Dev y 17.63 Std Dev y 17.61 20 0.7 20 0.7 0.6 0.6 10 10 0.5 0.5 -10 0.4 0.4 -10 0.3 -20 0.3 -20-30 0.2 -300.2 0.1 0.1 -40-400.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 0.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 E [GeV] E [GeV]



HCAL block 007: E vs hcalt (ns) HCAL block 007: E vs hcalt tw corr (ns) hCorr\_blk007 hRaw\_blk007 50 50 t<sub>tw corr</sub> [ns] Entries Entries 328 0.1304 Mean x Mean x 0.1302 40 Mean y -0.8209Mean y -0.7083Std Dev x 0.04217 Std Dev x 0.0421 30 30 Std Dev y 16.88 Std Dev y 17.24 20 20 1.4 1.4 10 1.2 10 1.2 -10 0.8 0.8 -10 -20 0.6 -200.6 -30 0.4 -300.4 0.2 0.2 -40-400.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 0.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 E [GeV] E [GeV]



HCAL block 009: E vs hcalt (ns) HCAL block 009: E vs hcalt tw corr (ns) hCorr\_blk009 hRaw\_blk009 50 50 t<sub>tw corr</sub> [ns] Entries Entries 420 0.1318 0.1318 Mean x Mean x 40 Mean y -1.185Mean y -1.424Std Dev x 0.04429 Std Dev x 0.04429 30 30 Std Dev y 21.81 Std Dev y 21.78 20 20 1.2 10 1.2 10 0.8 -10 0.8 -10 0.6 -20 0.6 -20-30 0.4 -30 0.4 0.2 0.2 -40 -400.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 0.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 E [GeV] E [GeV]

HCAL block 010: E vs hcalt (ns) HCAL block 010: E vs hcalt tw corr (ns) hCorr\_blk010 hRaw\_blk010 50 50 t<sub>tw corr</sub> [ns] Entries Entries 220 0.1176 Mean x Mean x 0.1176 40 Mean y 3.743 Mean y 3.249 Std Dev x 0.04606 Std Dev x 0.04606 30 30 Std Dev y 18.34 Std Dev y 18.36 20 1.4 20 1.4 10 1.2 10 1.2 -100.8 0.8 -100.6 0.6 -20 -20-30 0.4 -300.4 0.2 0.2 -40 -400.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 0.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 E [GeV] E [GeV]

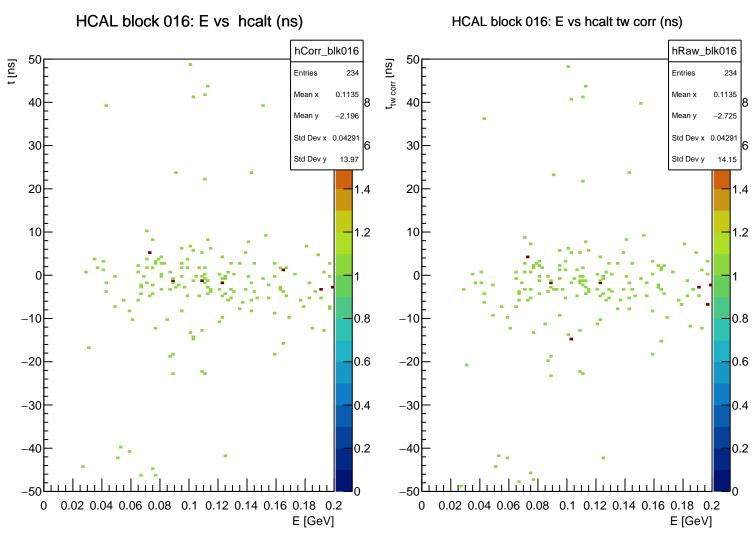
HCAL block 011: E vs hcalt (ns) HCAL block 011: E vs hcalt tw corr (ns) hCorr\_blk011 hRaw\_blk011 50 50 t<sub>tw corr</sub> [ns] Entries Entries 209 0.1248 Mean x Mean x 0.1245 40 Mean y 6.052 Mean y 5.498 Std Dev x 0.04938 Std Dev x 0.04965 30 30 Std Dev y 19.92 Std Dev y 20.65 20 0.7 20 1.4 0.6 10 10 1.2 0.5 -10 0.4 -100.8 0.6 -20 0.3 -20-30 0.2 -30 0.4 0.2 0.1 -40-400.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 0.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 E [GeV] E [GeV]

HCAL block 012: E vs hcalt (ns) HCAL block 012: E vs hcalt tw corr (ns) hCorr\_blk012 hRaw\_blk012 50 50 tw corr [ns] Entries Entries 17 0.04528 Mean x Mean x 0.04528 40 -0.378-3.238Mean y Mean y Std Dev x 0.01778 Std Dev x 0.01778 30 30 Std Dev y Std Dev y 16.94 20 0.7 20 0.7 0.6 10 10 0.6 0.5 0.5 0.4 0.4 -10-10-200.3 -200.3 -300.2 -300.2 0.1 0.1 -40-400.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 0.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 E [GeV] E [GeV]

HCAL block 013: E vs hcalt (ns) HCAL block 013: E vs hcalt tw corr (ns) hCorr\_blk013 hRaw\_blk013 50 50  $t_{\text{tw corr}} \, \text{lns} \, J$ Entries 152 Entries 152 0.1305 Mean x Mean x 0.1305 40 Mean y Mean y 0.6792 0.875 Std Dev x 0.03983 Std Dev x 0.03983 30 30 Std Dev y 13.76 Std Dev y 13.57 20 0.7 20 0.7 0.6 0.6 10 10 0.5 0.5 0.4 -10 0.4 -100.3 -20 0.3 -20-30 0.2 -300.2 0.1 0.1 -40-400.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 0.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 E [GeV] E [GeV]

HCAL block 014: E vs hcalt (ns) HCAL block 014: E vs hcalt tw corr (ns) hCorr\_blk014 hRaw\_blk014 50 50 t<sub>tw corr</sub> [ns] Entries Entries 286 0.123 Mean x Mean x 0.1227 40 Mean y 3.256 Mean y 2.636 Std Dev x 0.04407 Std Dev x 0.04403 30 30 Std Dev y 16.42 Std Dev y 16.04 20 1.4 20 1.4 1.2 10 1.2 10 -10 0.8 0.8 -10 0.6 -20 0.6 -20-30 0.4 -300.4 0.2 0.2 -40 -400.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 0.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 E [GeV] E [GeV]

HCAL block 015: E vs hcalt (ns) HCAL block 015: E vs hcalt tw corr (ns) hCorr\_blk015 hRaw\_blk015 50 50 tw corr [ns] Entries 267 Entries 267 0.1162 Mean x Mean x 0.1162 40 Mean y 0.7748 Mean y 0.2428 Std Dev x 0.04437 Std Dev x 0.04437 30 30 Std Dev y 13.89 Std Dev y 13.95 20 1.4 20 1.4 1.2 1.2 10 10 -100.8 0.8 -100.6 -200.6 -20-30 0.4 -300.4 0.2 0.2 -40-400.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 0.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 E [GeV] E [GeV]



HCAL block 017: E vs hcalt (ns) HCAL block 017: E vs hcalt tw corr (ns) hCorr\_blk017 hRaw\_blk017 50 50  $t_{\text{tw corr}} \, \text{lns} \, J$ Entries Entries 134 0.08494 Mean x Mean x 0.08455 40 Mean y 4.197 Mean y 3.462 Std Dev x 0.0352 Std Dev x 0.03511 30 30 Std Dev y 16.78 Std Dev y 17.13 20 1.4 20 1.4 10 1.2 10 1.2 -10 0.8 0.8 -100.6 -20 0.6 -20-30 0.4 -300.4 0.2 0.2 -40-400.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 0.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 E [GeV] E [GeV]

HCAL block 018: E vs hcalt (ns) HCAL block 018: E vs hcalt tw corr (ns) hCorr\_blk018 hRaw\_blk018 50 50 t<sub>tw corr</sub> [ns] Entries Entries 407 Mean x 0.1164 Mean x 0.1162 40 Mean y 2.166 Mean y 4.882 Std Dev x 0.04354 Std Dev x 0.04358 30 30 Std Dev y 16.31 Std Dev y 16.07 20 1.4 20 1.4 1.2 10 1.2 10 -100.8 0.8 -100.6 -200.6 -20-30 0.4 -300.4 0.2 0.2 -40-400.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 0.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 E [GeV] E [GeV]

HCAL block 019: E vs hcalt (ns) HCAL block 019: E vs hcalt tw corr (ns) hCorr\_blk019 hRaw\_blk019 50 50 tw corr [ns] Entries 212 Entries 212 0.1069 Mean x Mean x 0.1075 40 Mean y Mean y 3.57 3.204 Std Dev x 0.04751 Std Dev x 0.04718 30 30 Std Dev y 16.11 Std Dev y 15.63 0.7 20 1.4 20 0.6 10 1.2 10 0.5 -100.8 -100.4 0.3 -200.6 -20-30 0.4 -300.2 0.1 0.2 -40-400.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 0.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 E [GeV] E [GeV]

HCAL block 020: E vs hcalt (ns) HCAL block 020: E vs hcalt tw corr (ns) hCorr\_blk020 hRaw\_blk020 50 50 tw corr [ns] Entries Entries 0.08349 Mean x Mean x 0.08349 40 Mean y -0.2553Mean y -1.534Std Dev x 0.03697 Std Dev x 0.03697 30 30 Std Dev y 18.61 Std Dev y 18.54 20 0.7 20 0.7 0.6 10 0.6 10 0.5 0.5 -100.4 -100.4 -200.3 -200.3 -30 0.2 -300.2 0.1 0.1 -40-400.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 0.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 E [GeV] E [GeV]

HCAL block 021: E vs hcalt (ns) HCAL block 021: E vs hcalt tw corr (ns) hCorr\_blk021 hRaw\_blk021 50 50 t<sub>tw corr</sub> [ns] Entries Entries 0.1087 Mean x Mean x 0.1087 40 Mean y 2.204 Mean y 1.518 Std Dev x 0.04476 Std Dev x 0.04476 30 30 Std Dev y 16.27 Std Dev y 16.25 0.7 20 0.7 20 0.6 0.6 10 10 0.5 0.5 0.4 -100.4 -10 -20 0.3 -200.3 -30 0.2 -300.2 0.1 0.1 -40-400.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 0.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 E [GeV] E [GeV]

HCAL block 022: E vs hcalt (ns) HCAL block 022: E vs hcalt tw corr (ns) hCorr\_blk022 hRaw\_blk022 50 50 t<sub>tw corr</sub> [ns] Entries Entries 0.09546 Mean x Mean x 0.09546 40 Mean y 2.008 Mean y 1.091 Std Dev x 0.03988 Std Dev x 0.03988 30 30 Std Dev y Std Dev y 17.32 0.7 20 1.4 20 0.6 10 1.2 10 0.5 -100.8 0.4 -100.3 -200.6 -20-30 0.4 -300.2 0.1 0.2 -40-400.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 0.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 E [GeV] E [GeV]

HCAL block 023: E vs hcalt (ns) HCAL block 023: E vs hcalt tw corr (ns) hCorr\_blk023 hRaw\_blk023 50 50 tw corr [ns] Entries 127 Entries 127 0.1059 Mean x Mean x 0.1064 40 Mean y Mean y 3.818 6.025 Std Dev x 0.04689 Std Dev x 0.04681 30 30 Std Dev y 20.07 Std Dev y 18.59 0.7 20 0.7 20 0.6 0.6 10 10 0.5 0.5 -100.4 -100.4 0.3 -200.3 -20-30 0.2 -300.2 0.1 0.1 -40-400.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 0.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 E [GeV] E [GeV]

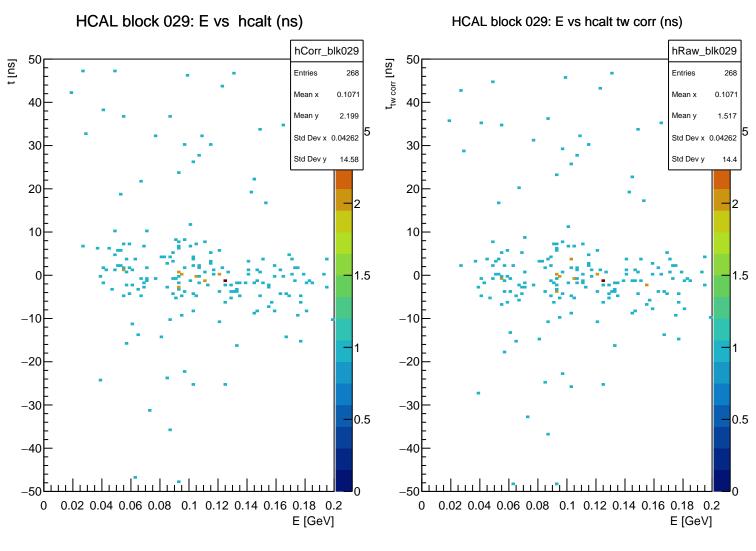
HCAL block 024: E vs hcalt (ns) HCAL block 024: E vs hcalt tw corr (ns) hCorr\_blk024 hRaw\_blk024 50 50 t<sub>tw corr</sub> [ns] Entries 740 Entries 740 0.1247 Mean x Mean x 0.1235 40 Mean y 1.819 Mean y 2.178 Std Dev x 0.05135 Std Dev x 0.05181 30 30 Std Dev y 23.63 Std Dev y 24.33 0.7 20 0.7 20 0.6 10 0.6 10 0.5 0.5 0.4 -100.4 -100.3 0.3 -20 -20-30 0.2 -300.2 0.1 0.1 -40 -400.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 0.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 E [GeV] E [GeV]

HCAL block 025: E vs hcalt (ns) HCAL block 025: E vs hcalt tw corr (ns) hCorr\_blk025 hRaw\_blk025 50 50 t<sub>tw corr</sub> [ns] Entries 161 Entries 161 0.1216 Mean x Mean x 0.1207 40 Mean y Mean y -2.941-2.697Std Dev x 0.04755 Std Dev x 0.04792 30 30 Std Dev y Std Dev y 14.12 15.2 0.7 20 0.7 20 0.6 0.6 10 10 0.5 0.5 0.4 0.4 -10 -10 -200.3 -200.3 -30 0.2 -300.2 0.1 0.1 -40-400.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 0.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 E [GeV] E [GeV]

HCAL block 026: E vs hcalt (ns) HCAL block 026: E vs hcalt tw corr (ns) hCorr\_blk026 hRaw\_blk026 50 50 t<sub>tw corr</sub> [ns] Entries Entries 194 0.1022 Mean x Mean x 0.1022 40 Mean y 3.78 Mean y 2.988 Std Dev x 0.04278 Std Dev x 0.04278 30 30 Std Dev y Std Dev y 17.3 17.39 20 0.7 20 1.4 0.6 10 10 1.2 0.5 0.4 0.8 -10-100.6 -200.3 -20-30 0.2 -300.4 0.2 0.1 -40-400.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 0.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 E [GeV] E [GeV]

HCAL block 027: E vs hcalt (ns) HCAL block 027: E vs hcalt tw corr (ns) hCorr\_blk027 hRaw\_blk027 50 50 t<sub>tw corr</sub> [ns] Entries Entries Mean x 0.08455 Mean x 0.08455 40 Mean y -1.048Mean y -2.468Std Dev x 0.04627 Std Dev x 0.04627 30 30 Std Dev y Std Dev y 9.617 9.534 20 0.7 20 0.7 0.6 10 0.6 10 0.5 0.5 0.4 -100.4 -100.3 -200.3 -20-300.2 -300.2 0.1 0.1 -40-400.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 0.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 E [GeV] E [GeV]

HCAL block 028: E vs hcalt (ns) HCAL block 028: E vs hcalt tw corr (ns) hCorr\_blk028 hRaw\_blk028 50 50 t<sub>tw corr</sub> [ns] Entries 234 Entries 234 0.1114 Mean x Mean x 0.1114 40 Mean y -2.571Mean y -3.125Std Dev x 0.04215 Std Dev x 0.04215 30 30 Std Dev y 13.63 Std Dev y 13.59 20 1.4 20 1.4 10 1.2 10 1.2 0.8 -100.8 -100.6 -200.6 -20-30 0.4 -300.4 0.2 0.2 -40-400.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 0.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 E [GeV] E [GeV]



HCAL block 030: E vs hcalt (ns) HCAL block 030: E vs hcalt tw corr (ns) hCorr\_blk030 hRaw\_blk030 50 50 t<sub>tw corr</sub> [ns] Entries Entries 0.09397 Mean x Mean x 0.09397 40 Mean y 0.3959 Mean y -0.6266Std Dev x 0.04201 Std Dev x 0.04201 30 30 Std Dev y 15.59 Std Dev y 15.42 20 1.4 20 1.4 10 1.2 10 1.2 -100.8 0.8 -100.6 -200.6 -20-30 0.4 -300.4 0.2 0.2 -40-400.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 0.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 E [GeV] E [GeV]

HCAL block 031: E vs hcalt (ns) HCAL block 031: E vs hcalt tw corr (ns) hCorr\_blk031 hRaw\_blk031 50 50 tw corr [ns] Entries Entries 106 0.09978 Mean x Mean x 0.09978 40 Mean y 2.079 Mean y 1.18 Std Dev x 0.04488 Std Dev x 0.04488 30 30 Std Dev y 15.52 Std Dev y 15.8 20 20 1.4 1.4 10 1.2 10 1.2 -100.8 0.8 -100.6 0.6 -20-20-30 0.4 -300.4 0.2 0.2 -40-400.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 0.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 E [GeV] E [GeV]

HCAL block 032: E vs hcalt (ns) HCAL block 032: E vs hcalt tw corr (ns) hCorr\_blk032 hRaw\_blk032 50 50 t<sub>tw corr</sub> [ns] Entries Entries 0.08341 Mean x Mean x 0.08363 40 Mean y 0.4148 Mean y 0.535 Std Dev x 0.04209 Std Dev x 0.04184 30 30 Std Dev y Std Dev y 15.7 15.92 20 1.4 20 1.4 10 1.2 10 1.2 0.8 0.8 -10-10-200.6 -200.6 -30 0.4 -300.4 0.2 0.2 -40-400.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 0.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 E [GeV] E [GeV]

HCAL block 033: E vs hcalt (ns) HCAL block 033: E vs hcalt tw corr (ns) hCorr\_blk033 hRaw\_blk033 50 50 tw corr [ns] Entries 171 Entries 171 0.08998 Mean x Mean x 0.08998 40 Mean y 1.421 Mean y 0.3057 Std Dev x 0.04039 Std Dev x 0.04039 30 30 Std Dev y Std Dev y 14.5 14.56 20 20 0.7 0.7 0.6 0.6 10 10 0.5 0.5 -100.4 -100.4 0.3 -200.3 -20-30 0.2 -300.2 0.1 0.1 -40-400.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 0.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 E [GeV] E [GeV]

HCAL block 034: E vs hcalt (ns) HCAL block 034: E vs hcalt tw corr (ns) hCorr\_blk034 hRaw\_blk034 50 50 tw corr [ns] Entries Entries 232 0.09794 Mean x Mean x 0.09788 40 Mean y 0.8009 Mean y 0.1635 Std Dev x 0.04201 Std Dev x 0.04189 30 30 Std Dev y Std Dev y 14.68 15.12 20 1.4 20 1.4 10 1.2 10 1.2 0.8 -100.8 -10-20 0.6 0.6 -20-30 0.4 -300.4 0.2 0.2 -40-400.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 0.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 E [GeV] E [GeV]

HCAL block 035: E vs hcalt (ns) HCAL block 035: E vs hcalt tw corr (ns) hCorr\_blk035 hRaw\_blk035 50 50 tw corr [ns] t [ns] Entries Entries 0.05763 Mean x Mean x 0.05767 40 0.1561 Mean y 1.779 Mean y Std Dev x 0.03244 Std Dev x 0.03217 30 30 Std Dev y 20.91 Std Dev y 22.04 0.7 20 0.7 20 0.6 10 0.6 10 0.5 0.5 -100.4 -100.4 0.3 -200.3 -20-300.2 -300.2 0.1 0.1 -40-400.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 0.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 E [GeV] E [GeV]

HCAL block 036: E vs hcalt (ns) HCAL block 036: E vs hcalt tw corr (ns) hCorr\_blk036 hRaw\_blk036 50 50 t<sub>tw corr</sub> [ns] Entries Entries 231 0.1164 Mean x Mean x 0.117 40 Mean y -1.596Mean y -1.682Std Dev x 0.04466 Std Dev x 0.04431 30 30 Std Dev y 20.86 Std Dev y 20.38 20 20 1.4 1.4 10 1.2 10 1.2 -100.8 0.8 -100.6 -200.6 -20-30 0.4 -300.4 0.2 0.2 -40-400.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 0.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 E [GeV] E [GeV]

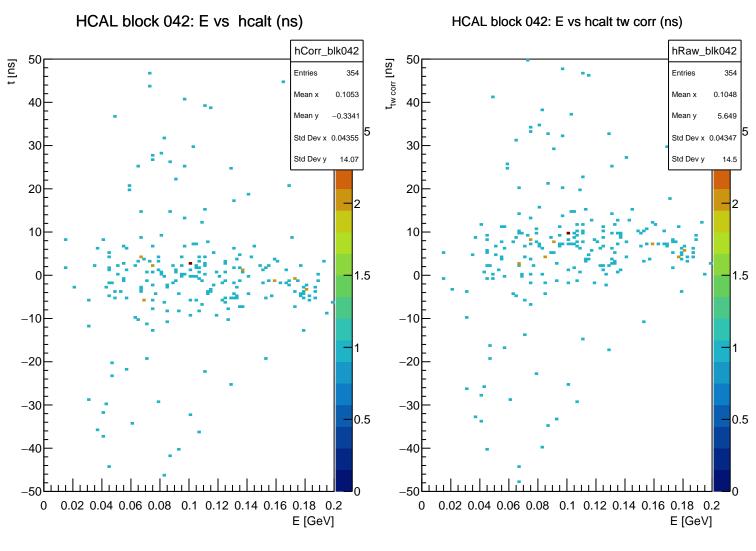
HCAL block 037: E vs hcalt (ns) HCAL block 037: E vs hcalt tw corr (ns) hCorr\_blk037 hRaw\_blk037 50 50 t<sub>tw corr</sub> [ns] Entries Entries 169 Mean x 0.1266 Mean x 0.1258 40 Mean y -1.495Mean y -1.228Std Dev x 0.04372 Std Dev x 0.04416 30 30 Std Dev y Std Dev y 11.8 13.02 20 1.4 20 1.4 10 1.2 10 1.2 -10 0.8 0.8 -100.6 -200.6 -20-30 0.4 -300.4 0.2 0.2 -40-400.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 0.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 E [GeV] E [GeV]

HCAL block 038: E vs hcalt (ns) HCAL block 038: E vs hcalt tw corr (ns) hCorr\_blk038 hRaw\_blk038 50 50 tw corr [ns] Entries Entries 104 Mean x 0.09882 Mean x 0.09882 40 Mean y -0.5354-1.319Mean y Std Dev x 0.03817 Std Dev x 0.03817 30 30 Std Dev y 15.39 Std Dev y 15.43 20 0.7 20 0.7 0.6 0.6 10 10 0.5 0.5 0.4 0.4 -10 -10 -200.3 -200.3 -30 0.2 -300.2 0.1 0.1 -40-400.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 0.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 E [GeV] E [GeV]

HCAL block 039: E vs hcalt (ns) HCAL block 039: E vs hcalt tw corr (ns) hCorr\_blk039 hRaw\_blk039 50 t<sub>tw corr</sub> [ns] Entries 371 Entries 371 0.1226 Mean x Mean x 0.1224 40 Mean y Mean y 2.663 4.204 Std Dev x 0.04216 Std Dev x 0.04262 30 30 Std Dev y 13.84 Std Dev y 13.77 20 1.4 20 10 1.2 10 1.2 -10 0.8 0.8 -10 0.6 -20 0.6 -20-30 0.4 -300.4 0.2 0.2 -40-400.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 0.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 E [GeV] E [GeV]

HCAL block 040: E vs hcalt (ns) HCAL block 040: E vs hcalt tw corr (ns) hCorr\_blk040 hRaw\_blk040 50 t<sub>tw corr</sub> [ns] Entries Entries 330 0.1208 Mean x Mean x 0.1208 40 Mean y Mean y 0.2769 1.723 Std Dev x 0.04416 Std Dev x 0.04416 30 30 Std Dev y 13.82 Std Dev y 13.82 20 20 1.4 1.2 1.2 10 10 -10 0.8 -100.8 0.6 -200.6 -20-30 0.4 -300.4 0.2 0.2 -40-400.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 0.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 E [GeV] E [GeV]

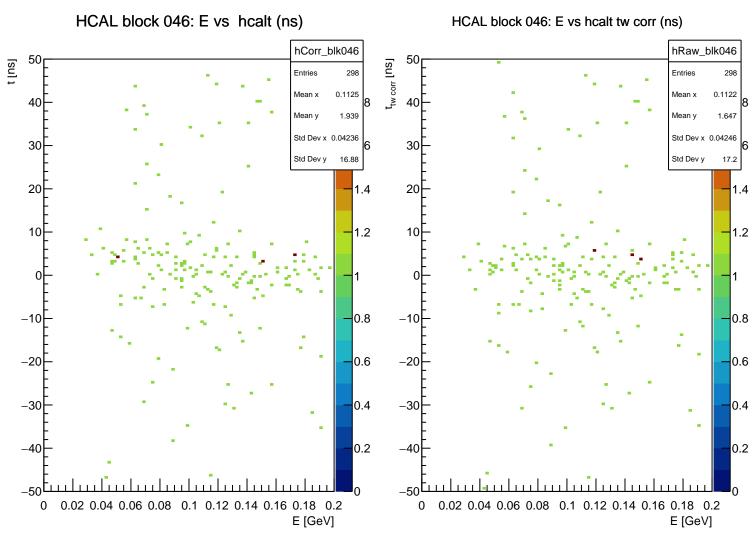
HCAL block 041: E vs hcalt (ns) HCAL block 041: E vs hcalt tw corr (ns) hCorr\_blk041 hRaw\_blk041 50 50 t<sub>tw corr</sub> [ns] 304 Entries Entries 0.1032 0.1031 Mean x Mean x 40 Mean y 1.001 Mean y 3.03 Std Dev x 0.04177 Std Dev x 0.04178 30 30 Std Dev y 15.03 Std Dev y 15.13 20 20 1.4 1.4 10 1.2 10 1.2 -100.8 0.8 -100.6 -20 0.6 -20-30 0.4 -300.4 0.2 0.2 -40 -400.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 0.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 E [GeV] E [GeV]



HCAL block 043: E vs hcalt (ns) HCAL block 043: E vs hcalt tw corr (ns) hCorr\_blk043 hRaw\_blk043 50 t<sub>tw corr</sub> [ns] 50 314 Entries 314 Entries 0.1094 Mean x Mean x 0.1094 40 Mean y -0.423Mean y 0.7327 Std Dev x 0.04148 Std Dev x 0.04148 30 30 Std Dev y 13.72 Std Dev y 13.8 20 1.4 20 1.4 1.2 10 1.2 10 -100.8 -100.8 0.6 -20 0.6 -20-30 0.4 -300.4 0.2 0.2 -40-400.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 0.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 E [GeV] E [GeV]

HCAL block 044: E vs hcalt (ns) HCAL block 044: E vs hcalt tw corr (ns) hCorr\_blk044 hRaw\_blk044 50 50 t<sub>tw corr</sub> [ns] 417 Entries Entries 0.1207 Mean x Mean x 0.1206 40 0.7546 Mean y Mean y 5.823 Std Dev x 0.04246 Std Dev x 0.04226 30 30 Std Dev y Std Dev y 14.05 20 20 1.4 1.2 10 1.2 10 -10 0.8 0.8 -10 0.6 -20 0.6 -20-30 0.4 -300.4 0.2 0.2 -40-400.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 0.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 E [GeV] E [GeV]

HCAL block 045: E vs hcalt (ns) HCAL block 045: E vs hcalt tw corr (ns) hCorr\_blk045 hRaw\_blk045 50 50 tw corr [ns] Entries Entries 295 0.1053 Mean x Mean x 0.1053 40 Mean y 4.29 Mean y 4.034 Std Dev x 0.04208 Std Dev x 0.04208 30 30 Std Dev y 15.46 Std Dev y 15.52 20 20 1.4 10 1.2 10 1.2 -100.8 -100.8 0.6 -200.6 -20-30 0.4 -300.4 0.2 0.2 -40-400.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 0.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 E [GeV] E [GeV]



HCAL block 047: E vs hcalt (ns) HCAL block 047: E vs hcalt tw corr (ns) hCorr\_blk047 hRaw\_blk047 50 50 tw corr [ns] Entries Entries 252 0.1087 Mean x Mean x 0.1087 40 Mean y 2.246 Mean y 1.564 Std Dev x 0.04383 Std Dev x 0.04383 30 30 Std Dev y Std Dev y 15.5 15.53 20 20 1.4 1.4 1.2 10 1.2 10 -10 0.8 0.8 -10 0.6 -200.6 -20-30 0.4 -300.4 0.2 0.2 -40 -400.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 0.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 E [GeV] E [GeV]

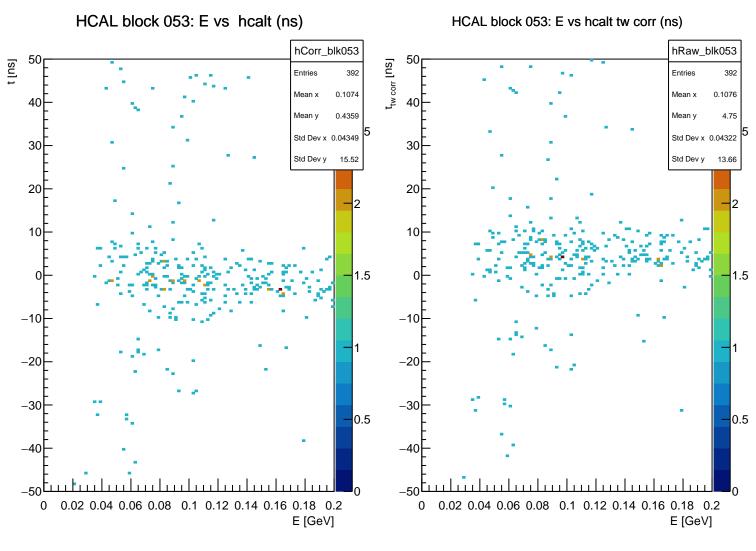
HCAL block 048: E vs hcalt (ns) HCAL block 048: E vs hcalt tw corr (ns) hCorr\_blk048 hRaw\_blk048 50 50 tw corr [ns] t [ns] Entries Entries 194 0.1087 Mean x Mean x 0.1087 40 Mean y 3.174 Mean y 2.459 Std Dev x 0.04645 Std Dev x 0.04645 30 30 Std Dev y 20.04 Std Dev y 19.85 20 20 1.4 1.4 10 1.2 10 1.2 -10 0.8 0.8 -10 0.6 -20 0.6 -200.4 -30 0.4 -300.2 0.2 -40-400.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 0.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 E [GeV] E [GeV]

HCAL block 049: E vs hcalt (ns) HCAL block 049: E vs hcalt tw corr (ns) hCorr\_blk049 hRaw\_blk049 50 50  $t_{\text{tw corr}} \, \text{lns} \, J$ Entries 274 Entries 274 0.1264 Mean x Mean x 0.1264 40 Mean y Mean y 1.181 0.8451 Std Dev x 0.04417 Std Dev x 0.04417 30 30 Std Dev y Std Dev y 14.6 20 1.4 20 1.2 10 1.2 10 0.8 -10 0.8 -10 0.6 -20 0.6 -20-30 0.4 -300.4 0.2 0.2 -40-400.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 0.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 E [GeV] E [GeV]

HCAL block 050: E vs hcalt (ns) HCAL block 050: E vs hcalt tw corr (ns) hCorr\_blk050 hRaw\_blk050 50 t<sub>tw corr</sub> [ns] Entries Entries 283 0.1202 Mean x Mean x 0.1197 40 Mean y Mean y 0.4039 0.2307 Std Dev x 0.04352 Std Dev x 0.04406 30 30 Std Dev y 12.47 Std Dev y 13.03 20 20 1.4 1.4 1.2 10 1.2 10 -100.8 -100.8 0.6 -200.6 -20-30 0.4 -300.4 0.2 0.2 -40-400.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 0.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 E [GeV] E [GeV]

HCAL block 051: E vs hcalt (ns) HCAL block 051: E vs hcalt tw corr (ns) hCorr\_blk051 hRaw\_blk051 50 t<sub>tw corr</sub> [ns] Entries 345 Entries 0.1236 Mean x 0.1234 Mean x 40 Mean y Mean y 0.8264 4.264 Std Dev x 0.04159 Std Dev x 0.0414 30 30 Std Dev y Std Dev y 13.1 20 1.4 20 1.4 1.2 10 1.2 10 0.8 -10 0.8 -100.6 -200.6 -20-30 0.4 -300.4 0.2 0.2 -40 -400.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 0.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 E [GeV] E [GeV]

HCAL block 052: E vs hcalt (ns) HCAL block 052: E vs hcalt tw corr (ns) hCorr\_blk052 hRaw\_blk052 50 50 t<sub>tw corr</sub> [ns] Entries 274 274 Entries Mean x 0.1122 0.1124 Mean x 40 Mean y -1.113 Mean y 1.092 Std Dev x 0.0424 Std Dev x 0.04234 30 30 Std Dev y 13.01 Std Dev y 13.32 20 1.4 20 1.4 1.2 10 1.2 10 -10 0.8 0.8 -100.6 -200.6 -20-30 0.4 -300.4 0.2 0.2 -40-400.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 0.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 E [GeV] E [GeV]



HCAL block 054: E vs hcalt (ns) HCAL block 054: E vs hcalt tw corr (ns) hCorr\_blk054 hRaw\_blk054 50 50 t<sub>tw corr</sub> [ns] Entries Entries 357 Mean x 0.09698 Mean x 0.09677 40 Mean y 0.6928 Mean y 7.772 Std Dev x 0.03897 Std Dev x 0.03915 30 30 Std Dev y Std Dev y 15.54 20 1.4 20 1.2 10 1.2 10 -100.8 -100.8 -20 0.6 0.6 -20-300.4 -300.4 0.2 0.2 -40-400.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 0.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 E [GeV] E [GeV]

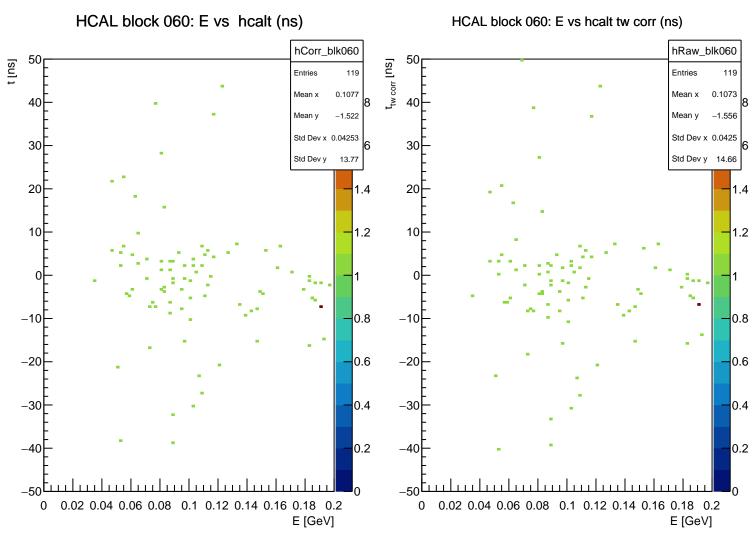
HCAL block 055: E vs hcalt (ns) HCAL block 055: E vs hcalt tw corr (ns) hCorr\_blk055 hRaw\_blk055 50 t<sub>tw corr</sub> [ns] Entries 442 Entries Mean x 0.1146 Mean x 0.1138 Mean y 1.213 Mean y 5.478 Std Dev x 0.0426 Std Dev x 0.04291 30 30 Std Dev y 14.81 Std Dev y 20 20 1.4 1.4 1.2 10 1.2 10 -100.8 0.8 -100.6 0.6 -20-20-30 0.4 -300.4 0.2 0.2 -40-400.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 0.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 E [GeV] E [GeV]

HCAL block 056: E vs hcalt (ns) HCAL block 056: E vs hcalt tw corr (ns) hCorr\_blk056 hRaw\_blk056 50 t<sub>tw corr</sub> [ns] 50 Entries Entries 325 0.1135 Mean x Mean x 0.114 40 Mean y Mean y 2.364 5.208 Std Dev x 0.04348 Std Dev x 0.04357 30 30 Std Dev y Std Dev y 16.47 15.71 20 1.4 20 1.4 1.2 10 1.2 10 -10 0.8 -100.8 0.6 -20 0.6 -20-30 0.4 -300.4 0.2 0.2 -40-400.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 0.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 E [GeV] E [GeV]

HCAL block 057: E vs hcalt (ns) HCAL block 057: E vs hcalt tw corr (ns) hCorr\_blk057 hRaw\_blk057 50 50 t<sub>tw corr</sub> [ns] Entries Entries 379 Mean x 0.1095 Mean x 0.1095 40 Mean y 0.6738 -0.1685Std Dev x 0.04157 Std Dev x 0.04157 30 30 Std Dev y 15.41 Std Dev y 15.44 20 1.4 20 10 1.2 10 1.5 -10 0.8 -10-20 0.6 -20-30 0.4 -300.5 0.2 -40-400.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 0.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 E [GeV] E [GeV]

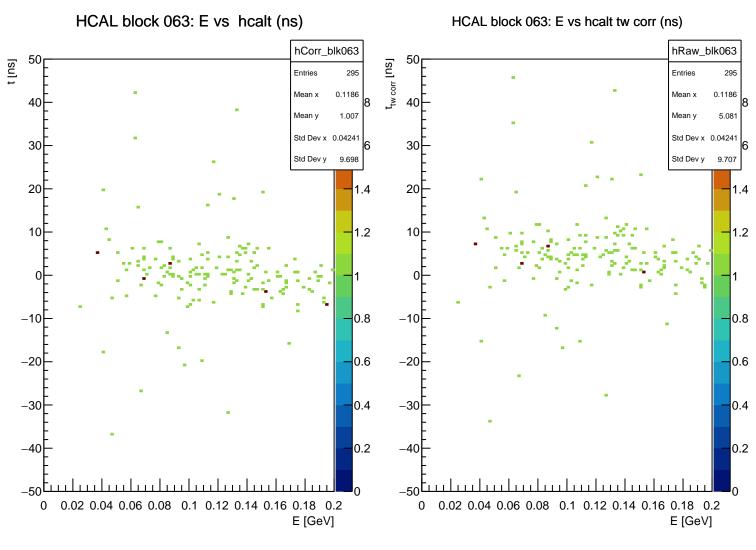
HCAL block 058: E vs hcalt (ns) HCAL block 058: E vs hcalt tw corr (ns) hCorr\_blk058 hRaw\_blk058 50 50 t<sub>tw corr</sub> [ns] Entries Entries 269 Mean x 0.109 Mean x 0.1087 40 Mean y Mean y 1.979 1.612 Std Dev x 0.04145 Std Dev x 0.04152 30 30 Std Dev y Std Dev y 15.29 14.93 20 1.4 20 1.4 10 1.2 10 1.2 -10 0.8 0.8 -100.6 -20 0.6 -20-30 0.4 -300.4 0.2 0.2 -40-400.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 0.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 E [GeV] E [GeV]

HCAL block 059: E vs hcalt (ns) HCAL block 059: E vs hcalt tw corr (ns) hCorr\_blk059 hRaw\_blk059 50 50 t<sub>tw corr</sub> [ns] Entries 240 Entries 240 0.1053 Mean x Mean x 0.1049 40 Mean y Mean y 0.1721 1.142 Std Dev x 0.0415 Std Dev x 0.04132 30 30 Std Dev y 16.14 Std Dev y 20 20 1.4 1.4 10 1.2 10 1.2 -10 0.8 0.8 -10-20 0.6 -200.6 -30 0.4 -300.4 0.2 0.2 -40 -400.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 0.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 E [GeV] E [GeV]



HCAL block 061: E vs hcalt (ns) HCAL block 061: E vs hcalt tw corr (ns) hCorr\_blk061 hRaw\_blk061 50 50 t<sub>tw corr</sub> [ns] Entries Entries 345 0.1269 Mean x Mean x 0.1269 40 Mean y Mean y 1.547 1.244 Std Dev x 0.04462 Std Dev x 0.04462 30 30 Std Dev y 17.48 Std Dev y 20 1.4 20 1.4 10 1.2 10 1.2 0.8 -10 0.8 -100.6 -20 0.6 -20-30 0.4 -300.4 0.2 0.2 -40-400.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 0.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 E [GeV] E [GeV]

HCAL block 062: E vs hcalt (ns) HCAL block 062: E vs hcalt tw corr (ns) hCorr\_blk062 hRaw\_blk062 50 50 t<sub>tw corr</sub> [ns] Entries Entries 405 0.1224 Mean x Mean x 0.1224 40 Mean y Mean y -1.701-2.093Std Dev x 0.04503 Std Dev x 0.04503 30 30 Std Dev y 13.54 Std Dev y 13.39 20 1.4 20 1.4 10 1.2 10 1.2 -100.8 0.8 -100.6 0.6 -20-20-30 0.4 -300.4 0.2 0.2 -40 -400.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 0.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 E [GeV] E [GeV]



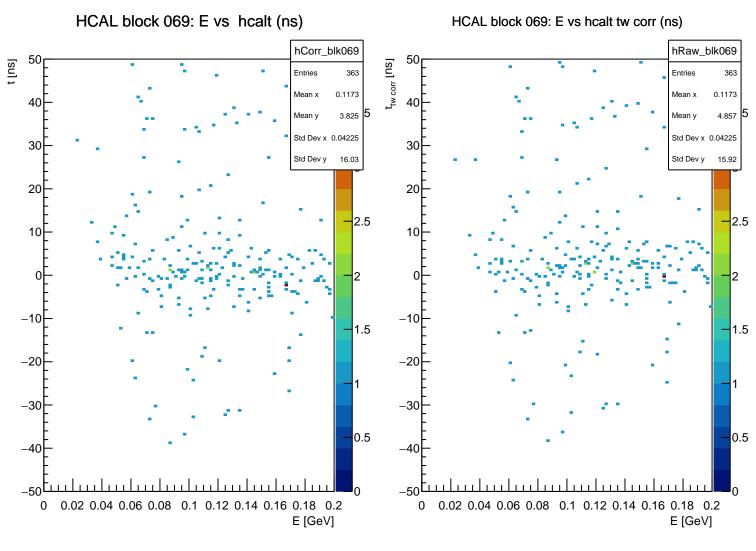
HCAL block 064: E vs hcalt (ns) HCAL block 064: E vs hcalt tw corr (ns) hCorr\_blk064 hRaw\_blk064 50 tw corr [ns] 50 t [ns] Entries Entries 421 Mean x 0.1142 Mean x 0.1142 Mean y Mean y 1.771 5.595 Std Dev x 0.0424 Std Dev x 0.04253 30 30 Std Dev y 13.6 Std Dev y 13.02 20 20 1.4 1.2 10 10 1.5 -10-100.8 0.6 -20-20-30 -300.4 0.5 0.2 -40-400.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 0.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 E [GeV] E [GeV]

HCAL block 065: E vs hcalt (ns) HCAL block 065: E vs hcalt tw corr (ns) hCorr\_blk065 hRaw\_blk065 50 50 t<sub>tw corr</sub> [ns] Entries Entries 330 Mean x 0.1104 Mean x 0.1101 Mean y -0.48432.929 Std Dev x 0.04323 Std Dev x 0.04323 30 30 Std Dev y 12.67 Std Dev y 12.8 20 1.4 20 10 1.2 10 1.5 -100.8 -10-200.6 -20-30 0.4 -300.5 0.2 -40-400.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 0.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 E [GeV] E [GeV]

HCAL block 066: E vs hcalt (ns) HCAL block 066: E vs hcalt tw corr (ns) hCorr\_blk066 hRaw\_blk066 50 50 t<sub>tw corr</sub> [ns] 579 Entries Entries 0.1219 Mean x Mean x 0.1219 Mean y -0.7157 Mean y 3.784 Std Dev x 0.04464 Std Dev x 0.04472 30 30 Std Dev y Std Dev y 20 20 1.4 1.4 10 1.2 1.2 10 -100.8 0.8 -100.6 -200.6 -20-300.4 -300.4 0.2 0.2 -40-400.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 0.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 E [GeV] E [GeV]

HCAL block 067: E vs hcalt (ns) HCAL block 067: E vs hcalt tw corr (ns) hCorr\_blk067 hRaw\_blk067 50 50 t<sub>tw corr</sub> [ns] Entries 168 Entries 168 Mean x 0.1172 Mean x 0.1194 40 Mean y Mean y -0.545511.27 Std Dev x 0.04215 Std Dev x 0.04122 30 30 Std Dev y Std Dev y 14.53 11.89 0.7 20 20 1.4 0.6 10 1.2 10 0.5 -100.8 0.4 -10-200.6 -200.3 -30 0.4 -300.2 0.1 0.2 -40-400.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 0.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 E [GeV] E [GeV]

HCAL block 068: E vs hcalt (ns) HCAL block 068: E vs hcalt tw corr (ns) hCorr\_blk068 hRaw\_blk068 50 50 t<sub>tw corr</sub> [ns] Entries Entries 401 0.119 0.1193 Mean x Mean x Mean y 2.858 Mean y 5.354 Std Dev x 0.04361 Std Dev x 0.04353 30 30 Std Dev y 17.09 Std Dev y 16.22 20 20 1.4 1.4 1.2 1.2 10 10 -10 0.8 -10 0.8 0.6 0.6 -20-20-30 0.4 -300.4 0.2 0.2 -40-400.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 0.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 E [GeV] E [GeV]



HCAL block 070: E vs hcalt (ns) HCAL block 070: E vs hcalt tw corr (ns) hCorr\_blk070 hRaw\_blk070 50 50 t<sub>tw corr</sub> [ns] Entries Entries 300 0.1092 Mean x Mean x 0.1099 40 Mean y Mean y 1.46 7.998 Std Dev x 0.04349 Std Dev x 0.04348 30 30 Std Dev y 15.27 Std Dev y 14.83 20 20 1.4 1.4 1.2 10 1.2 10 -100.8 0.8 -100.6 -200.6 -20-30 0.4 -300.4 0.2 0.2 -40-400.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 0.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 E [GeV] E [GeV]

HCAL block 071: E vs hcalt (ns) HCAL block 071: E vs hcalt tw corr (ns) hCorr\_blk071 hRaw\_blk071 50 50 t<sub>tw corr</sub> [ns] Entries 224 Entries 224 0.1123 Mean x Mean x 0.1121 40 Mean y Mean y 3.508 2.601 Std Dev x 0.04404 Std Dev x 0.04406 30 30 Std Dev y 18.88 Std Dev y 18.57 20 20 1.4 1.4 1.2 10 1.2 10 -10 0.8 -100.8 0.6 -20 0.6 -20-30 0.4 -300.4 0.2 0.2 -40 -400.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 0.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 E [GeV] E [GeV]

HCAL block 072: E vs hcalt (ns) HCAL block 072: E vs hcalt tw corr (ns) hCorr\_blk072 hRaw\_blk072 50 50  $t_{\text{tw corr}} \, \text{lns} \, J$ Entries Entries 189 0.1027 Mean x Mean x 0.1021 40 Mean y Mean y 4.335 3.912 Std Dev x 0.04027 Std Dev x 0.04057 30 30 Std Dev y 17.07 Std Dev y 17.34 20 20 1.4 1.4 10 10 1.2 1.2 0.8 0.8 -10-10 0.6 -20 0.6 -20-30 0.4 -30 0.4 0.2 0.2 -40 -400.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 0.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 E [GeV] E [GeV]

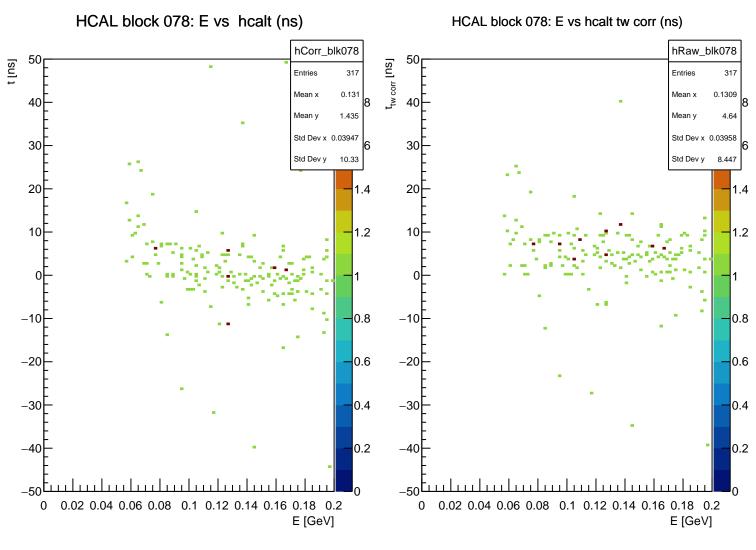
HCAL block 073: E vs hcalt (ns) HCAL block 073: E vs hcalt tw corr (ns) hCorr\_blk073 hRaw\_blk073 50 50 t<sub>tw corr</sub> [ns] Entries Entries 507 507 0.09 Mean x Mean x 0.08985 40 Mean y 6.412 Mean y 5.582 Std Dev x 0.03918 Std Dev x 0.03916 30 30 Std Dev y 21.1 Std Dev y 21.32 20 0.7 20 1.4 0.6 10 1.2 10 0.5 0.4 -100.8 -10-20 0.6 -200.3 -30 0.4 -300.2 0.1 0.2 -40-400.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 0.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 E [GeV] E [GeV]

HCAL block 074: E vs hcalt (ns) HCAL block 074: E vs hcalt tw corr (ns) hCorr\_blk074 hRaw\_blk074 50 50 tw corr [ns] Entries Entries Mean x 0.06819 Mean x 0.06819 40 Mean y Mean y 3.944 1.912 Std Dev x 0.03974 Std Dev x 0.03974 30 30 Std Dev y Std Dev y 13.19 12.54 20 0.7 20 0.7 0.6 10 0.6 10 0.5 0.5 0.4 -100.4 -10-200.3 -200.3 -30 0.2 -300.2 0.1 0.1 -40-400.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 0.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 E [GeV] E [GeV]

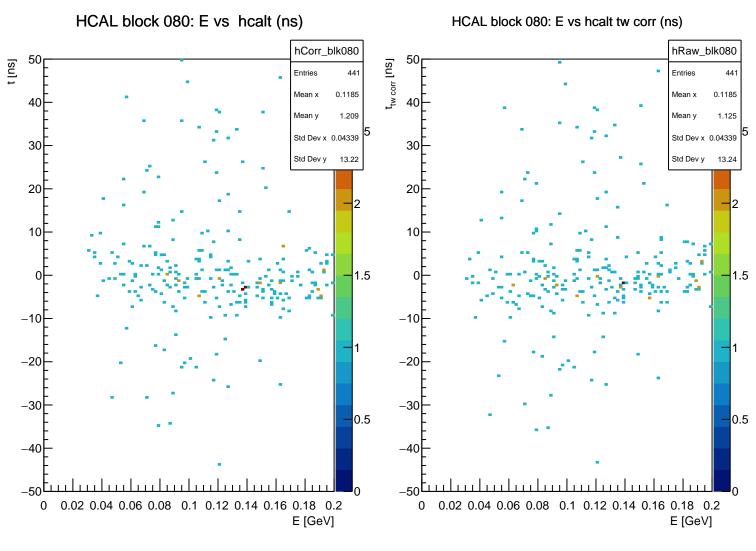
HCAL block 075: E vs hcalt (ns) HCAL block 075: E vs hcalt tw corr (ns) hCorr\_blk075 hRaw\_blk075 50 50 tw corr [ns] Entries Entries 193 Mean x 0.08226 Mean x 0.08291 40 Mean y 1.744 Mean y 0.587 Std Dev x 0.04899 Std Dev x 0.04918 30 30 Std Dev y 18.63 Std Dev y 17.77 20 1.4 20 1.4 10 1.2 10 1.2 -100.8 0.8 -100.6 -200.6 -20-300.4 -300.4 0.2 0.2 -40-400.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 0.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 E [GeV] E [GeV]

HCAL block 076: E vs hcalt (ns) HCAL block 076: E vs hcalt tw corr (ns) hCorr\_blk076 hRaw\_blk076 50 50 tw corr [ns] Entries Entries 205 0.09503 Mean x Mean x 0.09471 40 Mean y -1.763Mean y 4.62 Std Dev x 0.04324 Std Dev x 0.04323 30 30 Std Dev y Std Dev y 13.3 14.14 20 1.4 20 1.4 1.2 10 1.2 10 0.8 0.8 -10-100.6 -200.6 -20-30 0.4 -300.4 0.2 0.2 -40-400.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 0.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 E [GeV] E [GeV]

HCAL block 077: E vs hcalt (ns) HCAL block 077: E vs hcalt tw corr (ns) hCorr\_blk077 hRaw\_blk077 50 50 t<sub>tw corr</sub> [ns] Entries Entries 263 Mean x 0.1075 Mean x 0.1072 40 Mean y 0.2907 Mean y 5.379 Std Dev x 0.04436 Std Dev x 0.04425 30 30 Std Dev y Std Dev y 8.856 20 1.4 20 1.4 10 1.2 10 1.2 0.8 0.8 -10-100.6 -200.6 -20-30 0.4 -300.4 0.2 0.2 -40-400.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 0.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 E [GeV] E [GeV]



HCAL block 079: E vs hcalt (ns) HCAL block 079: E vs hcalt tw corr (ns) hCorr\_blk079 hRaw\_blk079 50 50 t<sub>tw corr</sub> [ns] Entries Entries 0.1206 Mean x Mean x 0.1206 40 Mean y 2.78 Mean y 2.979 Std Dev x 0.04233 Std Dev x 0.04233 30 30 Std Dev y 13.31 Std Dev y 13.3 20 1.4 20 1.4 1.2 10 1.2 10 -10 0.8 0.8 -10 0.6 -20 0.6 -20-30 0.4 -300.4 0.2 0.2 -40-400.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 0.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 E [GeV] E [GeV]



HCAL block 081: E vs hcalt (ns) HCAL block 081: E vs hcalt tw corr (ns) hCorr\_blk081 hRaw\_blk081 50 50 t<sub>tw corr</sub> [ns] 378 Entries 378 Entries 0.1177 Mean x Mean x 0.1177 40 Mean y 0.8665 Mean y 0.1101 Std Dev x 0.04135 Std Dev x 0.04135 30 30 Std Dev y 15.18 Std Dev y 20 1.4 20 1.4 1.2 10 1.2 10 0.8 -10 0.8 -100.6 -20 0.6 -20-30 0.4 -300.4 0.2 0.2 -40-400.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 0.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 E [GeV] E [GeV]

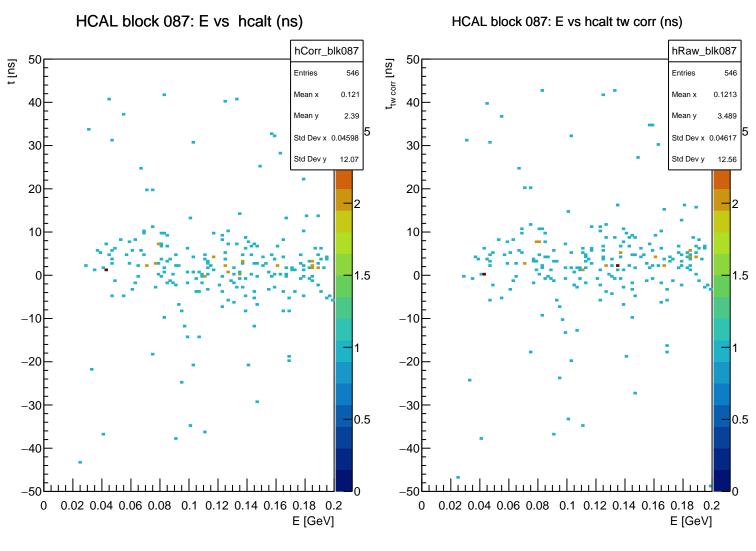
HCAL block 082: E vs hcalt (ns) HCAL block 082: E vs hcalt tw corr (ns) hCorr\_blk082 hRaw\_blk082 50 50 t<sub>tw corr</sub> [ns] Entries 220 Entries 220 0.1104 Mean x Mean x 0.1104 40 Mean y 0.3504 Mean y 2.411 Std Dev x 0.04373 Std Dev x 0.04373 30 30 Std Dev y 13.32 Std Dev y 13.27 20 1.4 20 1.4 1.2 10 1.2 10 -100.8 0.8 -100.6 -200.6 -20-300.4 -300.4 0.2 0.2 -40-400.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 0.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 E [GeV] E [GeV]

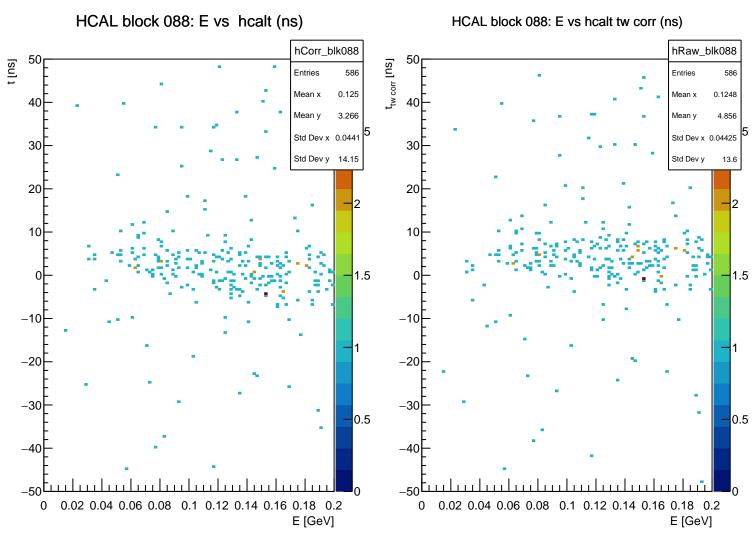
HCAL block 083: E vs hcalt (ns) HCAL block 083: E vs hcalt tw corr (ns) hCorr\_blk083 hRaw\_blk083 50 t<sub>tw corr</sub> [ns] 50 Entries Entries 269 0.1175 Mean x Mean x 0.1175 40 Mean y Mean y 1.884 1.458 Std Dev x 0.04026 Std Dev x 0.04026 30 30 Std Dev y 15.14 Std Dev y 15.11 20 1.4 20 1.4 1.2 10 1.2 10 -10 0.8 0.8 -10 0.6 -20 0.6 -20-30 0.4 -300.4 0.2 0.2 -40 -400.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 0.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 E [GeV] E [GeV]

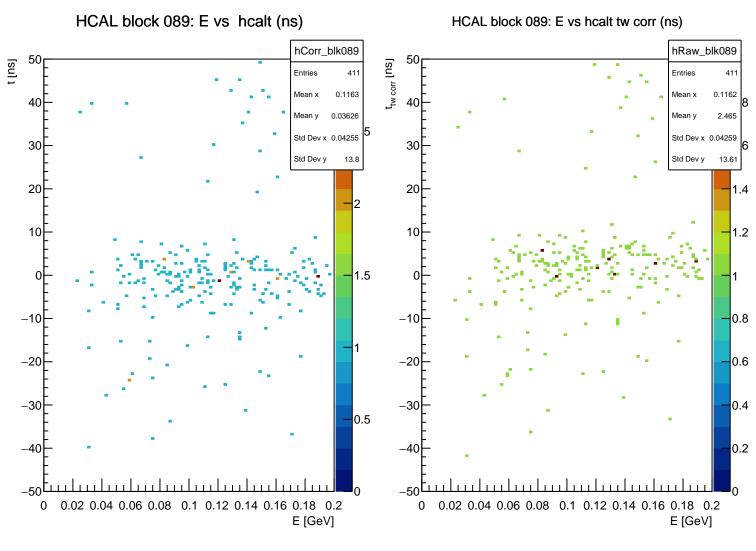
HCAL block 084: E vs hcalt (ns) HCAL block 084: E vs hcalt tw corr (ns) hCorr\_blk084 hRaw\_blk084 50 50 tw corr [ns] t [ns] Entries Entries 245 0.08419 Mean x Mean x 0.08372 40 Mean y 3.697 Mean y 3.104 Std Dev x 0.04535 Std Dev x 0.04514 30 30 Std Dev y 17.63 Std Dev y 18.55 20 20 1.4 1.4 10 1.2 10 1.2 -100.8 -100.8 0.6 -200.6 -20-30 0.4 -300.4 0.2 0.2 -40-400.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 0.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 E [GeV] E [GeV]

HCAL block 085: E vs hcalt (ns) HCAL block 085: E vs hcalt tw corr (ns) hCorr\_blk085 hRaw\_blk085 50 50  $t_{\text{tw corr}} \, \text{lns} \, J$ Entries 274 Entries 274 0.1294 Mean x Mean x 0.1298 40 Mean y 2.347 Mean y 2.449 Std Dev x 0.04858 Std Dev x 0.04852 30 30 Std Dev y 13.75 Std Dev y 12.97 20 1.4 20 1.2 1.2 10 10 -100.8 0.8 -10-20 0.6 0.6 -20-30 0.4 -300.4 0.2 0.2 -40-400.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 0.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 E [GeV] E [GeV]

HCAL block 086: E vs hcalt (ns) HCAL block 086: E vs hcalt tw corr (ns) hCorr\_blk086 hRaw\_blk086 50 50 t<sub>tw corr</sub> [ns] Entries Entries 305 0.1207 Mean x Mean x 0.1206 40 Mean y Mean y 0.3837 3.488 Std Dev x 0.04328 Std Dev x 0.04339 30 30 Std Dev y 13.35 Std Dev y 12.94 20 1.4 20 1.4 10 1.2 10 1.2 0.8 0.8 -10 -10 0.6 -200.6 -20-30 0.4 -300.4 0.2 0.2 -40-400.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 0.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 E [GeV] E [GeV]





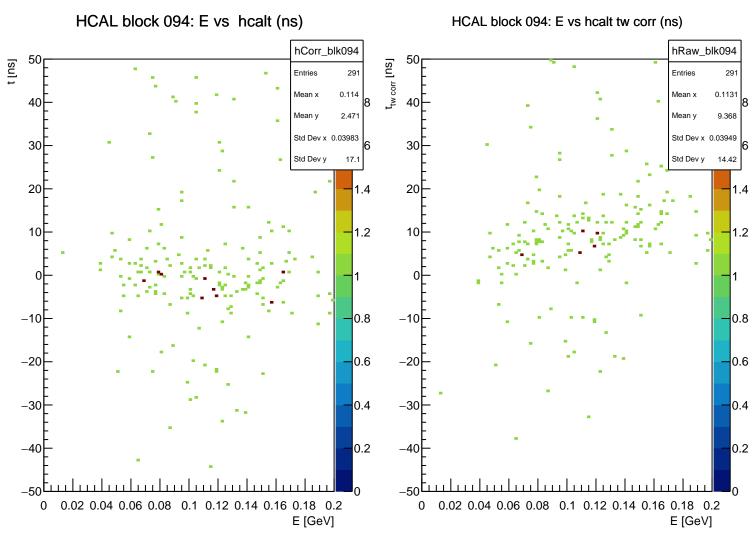


HCAL block 090: E vs hcalt (ns) HCAL block 090: E vs hcalt tw corr (ns) hCorr\_blk090 hRaw\_blk090 50 50 t<sub>tw corr</sub> [ns] Entries Entries 480 0.122 Mean x Mean x 0.122 Mean y 0.858 Mean y 2.25 Std Dev x 0.04176 Std Dev x 0.04176 30 30 Std Dev y Std Dev y 13.64 13.69 20 20 1.4 1.4 1.2 1.2 10 10 -100.8 0.8 -100.6 -20 0.6 -20-30 0.4 -300.4 0.2 0.2 -40-400.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 0.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 E [GeV] E [GeV]

HCAL block 091: E vs hcalt (ns) HCAL block 091: E vs hcalt tw corr (ns) hCorr\_blk091 hRaw\_blk091 50 50 tw corr [ns] Entries 590 Entries 0.1229 Mean x 0.1233 Mean x 40 Mean y Mean y 2.301 1.909 Std Dev x 0.0417 Std Dev x 0.04176 30 30 Std Dev y Std Dev y 16.24 16.9 20 1.4 20 1.4 1.2 10 1.2 10 -100.8 0.8 -100.6 -200.6 -20-30 0.4 -300.4 0.2 0.2 -40 -400.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 0.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 E [GeV] E [GeV]

HCAL block 092: E vs hcalt (ns) HCAL block 092: E vs hcalt tw corr (ns) hCorr\_blk092 hRaw\_blk092 50 50 t<sub>tw corr</sub> [ns] Entries Entries 459 0.1216 0.1213 Mean x Mean x 40 Mean y Mean y 1.216 4.675 Std Dev x 0.04358 Std Dev x 0.04364 30 30 Std Dev y Std Dev y 15.01 14.75 20 20 1.4 1.4 1.2 10 1.2 10 -100.8 0.8 -100.6 -20 0.6 -20-30 0.4 -300.4 0.2 0.2 -40-400.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 0.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 E [GeV] E [GeV]

HCAL block 093: E vs hcalt (ns) HCAL block 093: E vs hcalt tw corr (ns) hCorr\_blk093 hRaw\_blk093 50 tw corr [ns] Entries Entries 386 0.1188 Mean x Mean x 0.1186 40 Mean y Mean y 1.232 1.462 Std Dev x 0.04354 Std Dev x 0.04351 30 30 Std Dev y Std Dev y 14.97 14.79 20 20 1.4 1.4 10 1.2 1.2 10 -100.8 -100.8 0.6 -200.6 -20-30 0.4 -300.4 0.2 0.2 -40 -400.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 0.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 E [GeV] E [GeV]

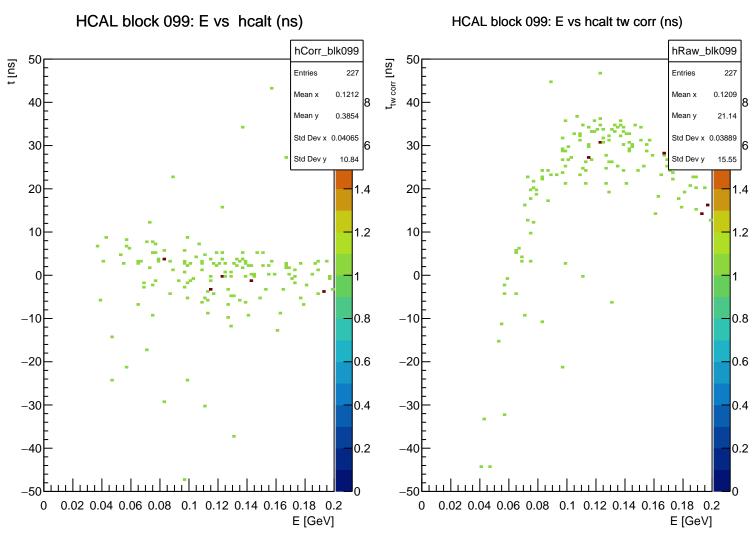


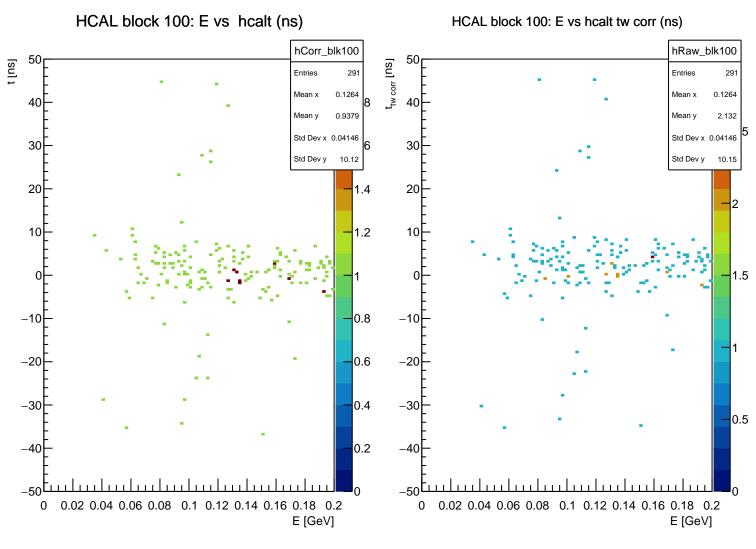
HCAL block 095: E vs hcalt (ns) HCAL block 095: E vs hcalt tw corr (ns) hCorr\_blk095 hRaw\_blk095 50 50 t<sub>tw corr</sub> [ns] Entries 264 Entries 264 0.1195 Mean x Mean x 0.1195 40 Mean y Mean y 2.676 2.292 Std Dev x 0.04142 Std Dev x 0.04142 30 30 Std Dev y Std Dev y 16.2 16.1 20 1.4 20 1.4 1.2 1.2 10 10 -10 0.8 0.8 -10 0.6 -20 0.6 -20-30 0.4 -300.4 0.2 0.2 -40 -400.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 0.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 E [GeV] E [GeV]

HCAL block 096: E vs hcalt (ns) HCAL block 096: E vs hcalt tw corr (ns) hCorr\_blk096 hRaw\_blk096 50 50 t<sub>tw corr</sub> [ns] Entries 128 Entries 128 0.1188 Mean x Mean x 0.1188 40 Mean y 3.124 Mean y 2.71 Std Dev x 0.04254 Std Dev x 0.04254 30 30 Std Dev y 16.89 Std Dev y 16.91 0.7 20 0.7 20 0.6 0.6 10 10 0.5 0.5 -10 0.4 0.4 -10 0.3 -20 0.3 -20-30 0.2 -300.2 0.1 0.1 -40-400.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 0.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 E [GeV] E [GeV]

HCAL block 097: E vs hcalt (ns) HCAL block 097: E vs hcalt tw corr (ns) hCorr\_blk097 hRaw\_blk097 50 50 t<sub>tw corr</sub> [ns] Entries Entries 262 0.1251 Mean x Mean x 0.1251 40 Mean y Mean y 1.425 1.146 Std Dev x 0.03996 Std Dev x 0.03996 30 30 Std Dev y 10.92 Std Dev y 11.13 20 1.4 20 1.4 1.2 10 1.2 10 -100.8 0.8 -10-200.6 -200.6 -30 0.4 -300.4 0.2 0.2 -40-400.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 0.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 E [GeV] E [GeV]

HCAL block 098: E vs hcalt (ns) HCAL block 098: E vs hcalt tw corr (ns) hCorr\_blk098 hRaw\_blk098 50 50  $t_{\text{tw corr}} \, \text{lns} \, J$ Entries Entries 306 0.1296 Mean x Mean x 0.1285 40 Mean y Mean y 3.007 -35.86Std Dev x 0.04275 Std Dev x 0.04685 30 30 Std Dev y Std Dev y 20.1 20 20 1.4 1.4 1.2 10 10 1.2 -10 0.8 0.8 -100.6 -20 0.6 -20-30 0.4 -300.4 0.2 0.2 -40-400.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 0.1 0.12 0.14 0.16 0.18 0.2 0.02 0.04 0.06 0.08 E [GeV] E [GeV]





HCAL block 101: E vs hcalt (ns) HCAL block 101: E vs hcalt tw corr (ns) hCorr\_blk101 hRaw\_blk101 50 50 t<sub>tw corr</sub> [ns] Entries Entries 0.1287 Mean x Mean x 0.1286 40 Mean y 0.6057 -0.5336Std Dev x 0.0403 Std Dev x 0.04031 30 30 Std Dev y 12.85 Std Dev y 20 1.4 20 1.4 1.2 10 1.2 10 -10 0.8 0.8 -100.6 -20 0.6 -20-30 0.4 -300.4 0.2 0.2 -40-400.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 0.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 E [GeV] E [GeV]

HCAL block 102: E vs hcalt (ns) HCAL block 102: E vs hcalt tw corr (ns) hCorr\_blk102 hRaw\_blk102 50 t<sub>tw corr</sub> [ns] Entries Entries 425 0.1171 Mean x Mean x 0.1169 40 Mean y Mean y 1.635 4.494 Std Dev x 0.04198 Std Dev x 0.04228 30 30 12.67 Std Dev y Std Dev y 20 1.4 20 1.4 1.2 10 1.2 10 -100.8 0.8 -100.6 -20 0.6 -20-30 0.4 -300.4 0.2 0.2 -40-400.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 0.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 E [GeV] E [GeV]

HCAL block 103: E vs hcalt (ns) HCAL block 103: E vs hcalt tw corr (ns) hCorr\_blk103 hRaw\_blk103 50 50 t<sub>tw corr</sub> [ns] Entries Entries 0.09272 Mean x Mean x 0.09227 40 Mean y 1.015 Mean y 2.405 Std Dev x 0.04107 Std Dev x 0.04098 30 30 Std Dev y 13.76 Std Dev y 14.48 20 1.4 20 1.4 10 1.2 10 1.2 -100.8 0.8 -100.6 -200.6 -20-30 0.4 -300.4 0.2 0.2 -40-400.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 0.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 E [GeV] E [GeV]

HCAL block 104: E vs hcalt (ns) HCAL block 104: E vs hcalt tw corr (ns) hCorr\_blk104 hRaw\_blk104 50 50 t<sub>tw corr</sub> [ns] Entries Entries 0.1241 0.1241 Mean x Mean x 40 Mean y 1.082 Mean y 0.8088 Std Dev x 0.041 Std Dev x 0.041 30 30 Std Dev y 14.28 Std Dev y 14.29 20 1.4 20 1.4 1.2 10 1.2 10 -10 0.8 0.8 -100.6 -20 0.6 -20-30 0.4 -300.4 0.2 0.2 -40-400.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 0.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 E [GeV] E [GeV]

HCAL block 105: E vs hcalt (ns) HCAL block 105: E vs hcalt tw corr (ns) hCorr\_blk105 hRaw\_blk105 50 50 tw corr [ns] Entries Entries 316 0.1245 0.1245 Mean x Mean x 40 Mean y Mean y 1.051 -0.1849Std Dev x 0.04118 Std Dev x 0.04118 30 30 Std Dev y 17.41 Std Dev y 20 1.4 20 1.4 1.2 10 1.2 10 -10 0.8 0.8 -10 0.6 -20 0.6 -20-30 0.4 -300.4 0.2 0.2 -40-400.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 0.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 E [GeV] E [GeV]

HCAL block 106: E vs hcalt (ns) HCAL block 106: E vs hcalt tw corr (ns) hCorr\_blk106 hRaw\_blk106 50 50 t<sub>tw corr</sub> [ns] Entries 316 Entries 316 0.1231 Mean x Mean x 0.1238 40 Mean y 2.53 Mean y 2.24 Std Dev x 0.04223 Std Dev x 0.04187 30 30 Std Dev y 15.95 Std Dev y 15.33 20 1.4 20 1.4 1.2 10 10 1.2 -10 0.8 0.8 -100.6 -20 0.6 -20-30 0.4 -300.4 0.2 0.2 -40-400.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 0.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 E [GeV] E [GeV]

HCAL block 107: E vs hcalt (ns) HCAL block 107: E vs hcalt tw corr (ns) hCorr\_blk107 hRaw\_blk107 50 50 t<sub>tw corr</sub> [ns] 307 Entries **Entries** 0.1408 0.1421 Mean x Mean x 40 Mean y Mean y 3.409 3.956 Std Dev x 0.0403 Std Dev x 0.04148 30 30 Std Dev y 15.15 Std Dev y 15.49 20 1.4 20 1.4 10 1.2 10 1.2 -10 0.8 0.8 -10 -20 0.6 -200.6 -30 0.4 -300.4 0.2 0.2 -40-400.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 0.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 E [GeV] E [GeV]

HCAL block 108: E vs hcalt (ns) HCAL block 108: E vs hcalt tw corr (ns) hCorr\_blk108 hRaw\_blk108 50 50 t<sub>tw corr</sub> [ns] Entries 130 Entries 130 Mean x 0.1171 Mean x 0.119 40 Mean y 0.5861 1.326 Mean y Std Dev x 0.0467 Std Dev x 0.04565 30 30 Std Dev y 19.19 Std Dev y 17.77 0.7 20 0.7 20 0.6 0.6 10 10 0.5 0.5 -100.4 -100.4 0.3 0.3 -20-20-30 0.2 -300.2 0.1 0.1 -40-400.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 0.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 E [GeV] E [GeV]

HCAL block 109: E vs hcalt (ns) HCAL block 109: E vs hcalt tw corr (ns) hCorr\_blk109 hRaw\_blk109 50 50  $t_{\text{tw corr}} \, \text{lns} \, J$ Entries Entries 223 0.1268 Mean x Mean x 0.1272 40 Mean y Mean y 0.2482 0.4492 Std Dev x 0.04185 Std Dev x 0.04182 30 30 Std Dev y 12.77 Std Dev y 12.05 20 20 10 1.2 10 1.2 -10 0.8 0.8 -10 -20 0.6 -200.6 -30 0.4 -300.4 0.2 0.2 -40-400.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 0.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 E [GeV] E [GeV]

HCAL block 110: E vs hcalt (ns) HCAL block 110: E vs hcalt tw corr (ns) hCorr\_blk110 hRaw\_blk110 50 50 t<sub>tw corr</sub> [ns] Entries 279 Entries 279 0.1285 Mean x Mean x 0.1247 40 3.757 Mean y Mean y -34.79Std Dev x 0.0423 Std Dev x 0.04227 30 30 Std Dev y Std Dev y 12.7 20 1.4 20 1.4 10 1.2 10 1.2 0.8 -10 0.8 -100.6 -200.6 -20-30 0.4 -300.4 0.2 0.2 -40-400.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 0.1 0.12 0.14 0.16 0.18 0.2 0.02 0.04 0.06 0.08 E [GeV] E [GeV]

HCAL block 111: E vs hcalt (ns) HCAL block 111: E vs hcalt tw corr (ns) hCorr\_blk111 hRaw\_blk111 50 50  $t_{\text{tw corr}} \, \text{lns} \, J$ Entries 522 Entries 522 0.1355 Mean x Mean x 0.1353 40 Mean y 2.733 Mean y 3.131 Std Dev x 0.03765 Std Dev x 0.03773 30 30 Std Dev y Std Dev y 14.14 20 1.4 20 1.4 1.2 1.2 10 10 0.8 -10 0.8 -10 0.6 -20 0.6 -20-30 0.4 -300.4 0.2 0.2 -40-400.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 0.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 E [GeV] E [GeV]

HCAL block 112: E vs hcalt (ns) HCAL block 112: E vs hcalt tw corr (ns) hCorr\_blk112 hRaw\_blk112 50 50 t<sub>tw corr</sub> [ns] Entries Entries 460 0.1342 Mean x Mean x 0.1342 40 Mean y 2.663 Mean y 2.895 Std Dev x 0.04195 Std Dev x 0.04203 30 30 Std Dev y Std Dev y 14.03 13.71 20 1.4 20 1.4 1.2 1.2 10 10 0.8 -10 0.8 -10 -20 0.6 -200.6 -30 0.4 -300.4 0.2 0.2 -40-400.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 0.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 E [GeV] E [GeV]

HCAL block 113: E vs hcalt (ns) HCAL block 113: E vs hcalt tw corr (ns) hCorr\_blk113 hRaw\_blk113 50 tw corr [ns] 50 t [ns] Entries Entries 286 Mean x 0.1217 Mean x 0.1217 40 Mean y 2.458 Mean y 1.078 Std Dev x 0.04252 Std Dev x 0.04252 30 30 Std Dev y 11.27 Std Dev y 20 20 1.4 1.2 10 10 1.5 -10 -100.8 0.6 -20-20-30 -300.4 0.5 0.2 -40-400.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 0.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 E [GeV] E [GeV]

HCAL block 114: E vs hcalt (ns) HCAL block 114: E vs hcalt tw corr (ns) hCorr\_blk114 hRaw\_blk114 50 50 tw corr [ns] 337 Entries 337 Entries Mean x 0.1141 Mean x 0.1141 40 Mean y Mean y 2.661 1.938 Std Dev x 0.04012 Std Dev x 0.04012 30 30 Std Dev y 13.16 Std Dev y 13.12 20 1.4 20 1.4 1.2 10 1.2 10 -100.8 0.8 -100.6 -200.6 -20-30 0.4 -300.4 0.2 0.2 -40-400.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 0.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 E [GeV] E [GeV]

HCAL block 115: E vs hcalt (ns) HCAL block 115: E vs hcalt tw corr (ns) hCorr\_blk115 hRaw\_blk115 50 50 tw corr [ns] Entries Entries 503 0.1236 0.1237 Mean x Mean x 40 Mean y Mean y -1.2211.357 Std Dev x 0.04214 Std Dev x 0.04216 30 30 Std Dev y 13.61 Std Dev y 13.36 20 20 1.4 1.4 10 10 1.2 1.2 -10 0.8 0.8 -100.6 -20 0.6 -20-30 0.4 -300.4 0.2 0.2 -40-400.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 0.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 E [GeV] E [GeV]

HCAL block 116: E vs hcalt (ns) HCAL block 116: E vs hcalt tw corr (ns) hCorr\_blk116 hRaw\_blk116 50 tw corr [ns] t [ns] Entries Entries 465 0.1165 Mean x Mean x 0.1161 Mean y 1.62 Mean y 0.7817 Std Dev x 0.04399 Std Dev x 0.04406 30 30 Std Dev y 15.51 Std Dev y 20 20 1.2 1.2 10 10 -10 0.8 -100.8 0.6 -20 0.6 -20-30 0.4 -300.4 0.2 0.2 -40 -400.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 0.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 E [GeV] E [GeV]

HCAL block 117: E vs hcalt (ns) HCAL block 117: E vs hcalt tw corr (ns) hCorr\_blk117 hRaw\_blk117 50 50 t<sub>tw corr</sub> [ns] Entries Entries 469 0.1271 Mean x Mean x 0.1271 40 Mean y 2.426 Mean y 4.015 Std Dev x 0.03892 Std Dev x 0.03892 30 30 Std Dev y 17.74 Std Dev y 17.76 20 20 1.4 1.4 1.2 1.2 10 10 -10 0.8 0.8 -10 0.6 -20 0.6 -20-30 0.4 -300.4 0.2 0.2 -40-400.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 0.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 E [GeV] E [GeV]

HCAL block 118: E vs hcalt (ns) HCAL block 118: E vs hcalt tw corr (ns) hCorr\_blk118 hRaw\_blk118 50 50 t<sub>tw corr</sub> [ns] Entries Entries 306 0.1299 Mean x Mean x 0.1292 40 Mean y 4.879 Mean y 5.731 Std Dev x 0.04363 Std Dev x 0.04433 30 30 Std Dev y 13.68 Std Dev y 20 1.4 20 1.4 1.2 1.2 10 10 -10 0.8 -100.8 0.6 -20 0.6 -20-30 0.4 -300.4 0.2 0.2 -40-400.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 0.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 E [GeV] E [GeV]

HCAL block 119: E vs hcalt (ns) HCAL block 119: E vs hcalt tw corr (ns) hCorr\_blk119 hRaw\_blk119 50 50 t<sub>tw corr</sub> [ns] 317 Entries 317 Entries 0.1185 Mean x Mean x 0.1185 40 Mean y 5.616 Mean y 5.086 Std Dev x 0.04552 Std Dev x 0.04552 30 30 Std Dev y Std Dev y 17.37 17.26 20 1.4 20 1.2 1.2 10 10 -100.8 -100.8 0.6 -200.6 -20-30 0.4 -300.4 0.2 0.2 -40 -400.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 0.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 E [GeV] E [GeV]

HCAL block 120: E vs hcalt (ns) HCAL block 120: E vs hcalt tw corr (ns) hCorr\_blk120 hRaw\_blk120 50 50 tw corr [ns] t [ns] Entries 131 Entries 131 0.1182 Mean x Mean x 0.1182 40 Mean y Mean y 2.196 1.626 Std Dev x 0.04711 Std Dev x 0.04711 30 30 Std Dev y Std Dev y 16.4 16.51 0.7 20 0.7 20 0.6 0.6 10 10 0.5 0.5 -10 0.4 0.4 -100.3 0.3 -20-20-30 0.2 -300.2 0.1 0.1 -40-400.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 0.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 E [GeV] E [GeV]

HCAL block 121: E vs hcalt (ns) HCAL block 121: E vs hcalt tw corr (ns) hCorr\_blk121 hRaw\_blk121 50 50 t<sub>tw corr</sub> [ns] Entries 209 Entries 0.1271 0.1271 Mean x Mean x 40 Mean y Mean y -0.8142-1.082Std Dev x 0.0412 Std Dev x 0.0412 30 30 Std Dev y 11.34 Std Dev y 11.26 20 1.4 20 1.4 1.2 10 1.2 10 -10 0.8 0.8 -100.6 -200.6 -20-30 0.4 -300.4 0.2 0.2 -40-400.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 0.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 E [GeV] E [GeV]

HCAL block 122: E vs hcalt (ns) HCAL block 122: E vs hcalt tw corr (ns) hCorr\_blk122 hRaw\_blk122 50 50 t<sub>tw corr</sub> [ns] Entries Entries 467 0.1277 Mean x Mean x 0.1279 40 Mean y 1.501 Mean y 0.6562 Std Dev x 0.04286 Std Dev x 0.04265 30 30 Std Dev y Std Dev y 15.16 20 1.4 20 1.4 1.2 10 1.2 10 -10 0.8 0.8 -100.6 -200.6 -20-30 0.4 -300.4 0.2 0.2 -40-400.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 0.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 E [GeV] E [GeV]

HCAL block 123: E vs hcalt (ns) HCAL block 123: E vs hcalt tw corr (ns) hCorr\_blk123 hRaw\_blk123 50 50 t<sub>tw corr</sub> [ns] Entries 267 Entries 267 0.1231 Mean x Mean x 0.1226 40 Mean y 1.657 Mean y 35.78 Std Dev x 0.03965 Std Dev x 0.04004 30 30 Std Dev y Std Dev y 11.09 20 20 1.4 1.4 10 1.2 10 1.2 -10 0.8 0.8 -100.6 -200.6 -20-30 0.4 -300.4 0.2 0.2 -40-400.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 0.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 E [GeV] E [GeV]

HCAL block 124: E vs hcalt (ns) HCAL block 124: E vs hcalt tw corr (ns) hCorr\_blk124 hRaw\_blk124 50 50 t<sub>tw corr</sub> [ns] Entries Entries 332 0.1302 Mean x Mean x 0.1305 40 Mean y 1.802 Mean y -0.5893Std Dev x 0.04161 Std Dev x 0.04145 30 30 Std Dev y 13.71 Std Dev y 14.15 20 1.4 20 1.2 10 10 1.2 -10 0.8 0.8 -100.6 -20 0.6 -20-30 0.4 -300.4 0.2 0.2 -40 -400.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 0.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 E [GeV] E [GeV]

HCAL block 125: E vs hcalt (ns) HCAL block 125: E vs hcalt tw corr (ns) hCorr\_blk125 hRaw\_blk125 50 tw corr [ns] Entries Entries 598 0.1322 Mean x Mean x 0.1321 40 Mean y 2.303 Mean y 0.6635 Std Dev x 0.04203 Std Dev x 0.04232 30 30 Std Dev y 14.15 Std Dev y 20 20 1.2 10 10 1.5 -10 0.8 -100.6 -20-20-30 -300.4 0.5 0.2 -40-400.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 0.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 E [GeV] E [GeV]

HCAL block 126: E vs hcalt (ns) HCAL block 126: E vs hcalt tw corr (ns) hCorr\_blk126 hRaw\_blk126 50 50 tw corr [ns] Entries Entries 253 Mean x 0.1134 Mean x 0.1139 40 Mean y 0.8029 Mean y 0.05606 Std Dev x 0.04201 Std Dev x 0.04158 30 30 Std Dev y 13.46 Std Dev y 20 20 1.4 1.2 10 10 1.5 -10 -100.8 0.6 -20 -20-30 -300.4 0.5 0.2 -40-400.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 0.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 E [GeV] E [GeV]

HCAL block 127: E vs hcalt (ns) HCAL block 127: E vs hcalt tw corr (ns) hCorr\_blk127 hRaw\_blk127 50 50 t<sub>tw corr</sub> [ns] Entries Entries 449 0.1259 Mean x Mean x 0.1262 40 Mean y -0.596Mean y -4.819Std Dev x 0.04226 Std Dev x 0.04205 30 30 Std Dev y 17.01 Std Dev y 17.13 20 20 1.4 1.4 1.2 1.2 10 10 0.8 0.8 -10-100.6 -200.6 -20-30 0.4 -300.4 0.2 0.2 -40 -400.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 0.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 E [GeV] E [GeV]

HCAL block 128: E vs hcalt (ns) HCAL block 128: E vs hcalt tw corr (ns) hCorr\_blk128 hRaw\_blk128 50 50 t<sub>tw corr</sub> [ns] Entries Entries 466 0.1259 Mean x Mean x 0.1261 40 Mean y Mean y 0.5471 -0.7328Std Dev x 0.04312 Std Dev x 0.04301 30 30 Std Dev y 17.37 Std Dev y 17.56 20 0.7 1.4 20 1.2 0.6 10 10 0.5 -10 0.8 0.4 -10 0.3 -20 0.6 -20-30 0.4 -300.2 0.1 0.2 -40 -400.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 0.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 E [GeV] E [GeV]

HCAL block 129: E vs hcalt (ns) HCAL block 129: E vs hcalt tw corr (ns) hCorr\_blk129 hRaw\_blk129 50 t<sub>tw corr</sub> [ns] 50 457 Entries Entries 0.1264 0.1267 Mean x Mean x 40 Mean y 3.311 Mean y 2.289 Std Dev x 0.04029 Std Dev x 0.04046 30 30 Std Dev y Std Dev y 19.02 18.29 20 20 1.4 1.4 1.2 1.2 10 10 -10 0.8 -100.8 -20 0.6 0.6 -20-30 0.4 -300.4 0.2 0.2 -40-400.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 0.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 E [GeV] E [GeV]

HCAL block 130: E vs hcalt (ns) HCAL block 130: E vs hcalt tw corr (ns) hCorr\_blk130 hRaw\_blk130 50 50 t<sub>tw corr</sub> [ns] Entries Entries 338 0.1265 Mean x Mean x 0.1258 40 Mean y 2.539 Mean y -1.692Std Dev x 0.04393 Std Dev x 0.04422 30 30 Std Dev y Std Dev y 16.8 17.65 20 20 1.4 1.4 10 1.2 1.2 10 -100.8 0.8 -100.6 -200.6 -20-30 0.4 -300.4 0.2 0.2 -40 -400.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 0.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 E [GeV] E [GeV]

HCAL block 131: E vs hcalt (ns) HCAL block 131: E vs hcalt tw corr (ns) hCorr\_blk131 hRaw\_blk131 50 t<sub>tw corr</sub> [ns] 50 t [ns] Entries 166 Entries 166 0.1124 Mean x Mean x 0.1124 40 Mean y Mean y 4.932 4.349 Std Dev x 0.04421 Std Dev x 0.04421 30 30 Std Dev y 17.25 Std Dev y 17.09 0.7 20 0.7 20 0.6 0.6 10 10 0.5 0.5 -100.4 -100.4 0.3 -200.3 -20-30 0.2 -30 0.2 0.1 0.1 -40 -400.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 0.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 E [GeV] E [GeV]

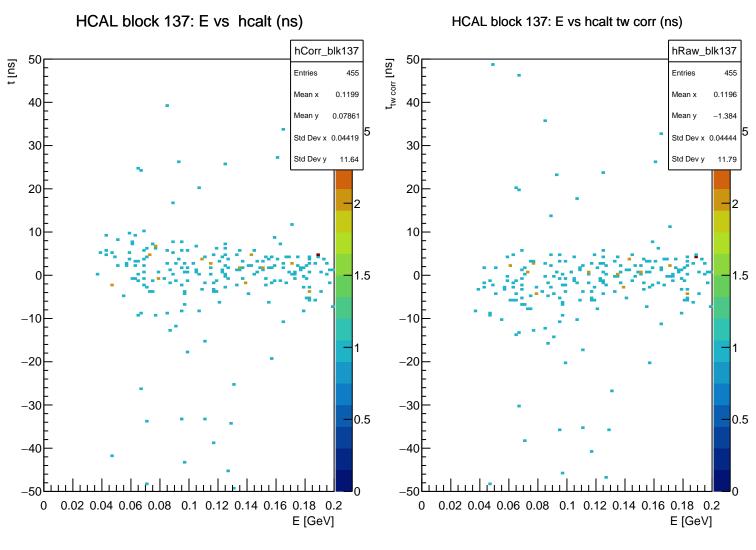
HCAL block 132: E vs hcalt (ns) HCAL block 132: E vs hcalt tw corr (ns) hCorr\_blk132 hRaw\_blk132 50 50 t<sub>tw corr</sub> [ns] t [ns] Entries 516 Entries 516 0.1125 Mean x Mean x 0.1125 40 Mean y Mean y 1.227 0.368 Std Dev x 0.05356 Std Dev x 0.05356 30 30 Std Dev y 23.89 Std Dev y 24.17 20 20 1.4 1.2 1.2 10 10 -100.8 -100.8 0.6 -200.6 -20-300.4 -300.4 0.2 0.2 -40-400.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 0.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 E [GeV] E [GeV]

HCAL block 133: E vs hcalt (ns) HCAL block 133: E vs hcalt tw corr (ns) hCorr\_blk133 hRaw\_blk133 50 50 t<sub>tw corr</sub> [ns] Entries Entries 323 0.1248 0.1245 Mean x Mean x 40 Mean y Mean y 0.7226 1.364 Std Dev x 0.04481 Std Dev x 0.04483 30 30 Std Dev y Std Dev y 13.81 20 20 1.2 10 1.2 10 -10 0.8 0.8 -100.6 -200.6 -20-30 0.4 -300.4 0.2 0.2 -40-400.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 0.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 E [GeV] E [GeV]

HCAL block 134: E vs hcalt (ns) HCAL block 134: E vs hcalt tw corr (ns) hCorr\_blk134 hRaw\_blk134 50 50 tw corr [ns] Entries Entries 368 0.1276 Mean x Mean x 0.1276 40 Mean y 0.8145 Mean y 0.4338 Std Dev x 0.04069 Std Dev x 0.04069 30 30 Std Dev y 13.88 Std Dev y 13.8 20 1.4 20 1.4 1.2 10 1.2 10 -10 0.8 0.8 -10 0.6 -20 0.6 -20-30 0.4 -300.4 0.2 0.2 -40-400.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 0.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 E [GeV] E [GeV]

HCAL block 135: E vs hcalt (ns) HCAL block 135: E vs hcalt tw corr (ns) hCorr\_blk135 hRaw\_blk135 50 50 tw corr [ns] t [ns] Entries Entries 481 0.1259 Mean x Mean x 0.1252 40 Mean y 1.24 Mean y 31.23 Std Dev x 0.04201 Std Dev x 0.04202 30 30 Std Dev y 13.61 Std Dev y 20 20 1.4 1.2 10 10 1.2 -10 0.8 0.8 -100.6 0.6 -20-20-30 0.4 -300.4 0.2 0.2 -40-400.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 0.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 E [GeV] E [GeV]

HCAL block 136: E vs hcalt (ns) HCAL block 136: E vs hcalt tw corr (ns) hCorr\_blk136 hRaw\_blk136 50 50 tw corr [ns] Entries Entries 368 0.1191 Mean x Mean x 0.1191 40 Mean y 1.723 0.5163 Std Dev x 0.04352 Std Dev x 0.04352 30 30 Std Dev y 12.85 Std Dev y 12.77 20 1.4 20 10 1.2 10 1.5 -10 0.8 -10-200.6 -20-30 0.4 -300.5 0.2 -40-400.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 0.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 E [GeV] E [GeV]



HCAL block 138: E vs hcalt (ns) HCAL block 138: E vs hcalt tw corr (ns) hCorr\_blk138 hRaw\_blk138 50 50 t<sub>tw corr</sub> [ns] t [ns] Entries Entries 0.1174 Mean x 0.1169 Mean x 40 Mean y 0.7633 Mean y 0.643 Std Dev x 0.042 Std Dev x 0.04243 30 30 Std Dev y 16.51 Std Dev y 16.49 20 1.4 20 1.4 10 1.2 1.2 10 -10 0.8 0.8 -10 0.6 -20 0.6 -20-30 0.4 -300.4 0.2 0.2 -40-400.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 0.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 E [GeV] E [GeV]

HCAL block 139: E vs hcalt (ns) HCAL block 139: E vs hcalt tw corr (ns) hCorr\_blk139 hRaw\_blk139 50 50 tw corr [ns] t [ns] Entries 356 Entries 0.1214 0.121 Mean x Mean x 40 Mean y 2.62 Mean y 0.2121 Std Dev x 0.04281 Std Dev x 0.04294 30 30 Std Dev y Std Dev y 15.02 20 1.4 20 1.2 10 10 1.2 0.8 -10 0.8 -10 0.6 -20 0.6 -20-30 0.4 -300.4 0.2 0.2 -40 -400.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 0.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 E [GeV] E [GeV]

HCAL block 140: E vs hcalt (ns) HCAL block 140: E vs hcalt tw corr (ns) hCorr\_blk140 hRaw\_blk140 50 t<sub>tw corr</sub> [ns] 50 Entries Entries 464 0.1216 0.1216 Mean x Mean x 40 Mean y Mean y 1.424 1.756 Std Dev x 0.04136 Std Dev x 0.04136 30 30 Std Dev y 16.65 Std Dev y 16.66 20 1.4 20 1.4 1.2 10 1.2 10 -10 0.8 0.8 -100.6 -20 0.6 -20-30 0.4 -300.4 0.2 0.2 -40-400.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 0.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 E [GeV] E [GeV]

HCAL block 141: E vs hcalt (ns) HCAL block 141: E vs hcalt tw corr (ns) hCorr\_blk141 hRaw\_blk141 50 50 t<sub>tw corr</sub> [ns] Entries Entries 0.1084 Mean x Mean x 0.1093 40 Mean y Mean y 1.647 -0.9586Std Dev x 0.04132 Std Dev x 0.04179 30 30 Std Dev y 15.38 Std Dev y 16.85 20 1.4 20 1.4 10 1.2 10 1.2 -10 0.8 0.8 -100.6 -200.6 -20-30 0.4 -300.4 0.2 0.2 -40-400.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 0.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 E [GeV] E [GeV]

HCAL block 142: E vs hcalt (ns) HCAL block 142: E vs hcalt tw corr (ns) hCorr\_blk142 hRaw\_blk142 50 t<sub>tw corr</sub> [ns] Entries 245 Entries 245 0.1202 Mean x Mean x 0.1202 40 Mean y 2.031 Mean y 1.624 Std Dev x 0.04386 Std Dev x 0.04386 30 30 Std Dev y 13.77 Std Dev y 13.59 20 0.7 20 1.4 0.6 1.2 10 10 0.5 -10 0.8 0.4 -100.3 0.6 -20 -20-30 0.2 -300.4 0.2 0.1 -40-400.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 0.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 E [GeV] E [GeV]

HCAL block 143: E vs hcalt (ns) HCAL block 143: E vs hcalt tw corr (ns) hCorr\_blk143 hRaw\_blk143 50 50 t<sub>tw corr</sub> [ns] Entries Entries 221 0.1259 Mean x Mean x 0.1252 40 Mean y 0.8498 Mean y 0.885 Std Dev x 0.04312 Std Dev x 0.04361 30 30 Std Dev y 15.59 Std Dev y 16.13 20 20 1.4 1.4 1.2 1.2 10 10 -100.8 0.8 -100.6 -200.6 -20-30 0.4 -300.4 0.2 0.2 -40-400.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 0.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 E [GeV] E [GeV]

HCAL block 144: E vs hcalt (ns) HCAL block 144: E vs hcalt tw corr (ns) hCorr\_blk144 hRaw\_blk144 50 50 tw corr [ns] Entries 246 Entries 246 0.1119 Mean x Mean x 0.1097 40 Mean y Mean y 1.236 2.117 Std Dev x 0.04491 Std Dev x 0.04603 30 30 Std Dev y 21.08 Std Dev y 22.4 20 1.4 20 1.4 1.2 10 1.2 10 -10 0.8 -100.8 0.6 -20 0.6 -20-30 0.4 -300.4 0.2 0.2 -40-400.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 0.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 E [GeV] E [GeV]

HCAL block 145: E vs hcalt (ns) HCAL block 145: E vs hcalt tw corr (ns) hCorr\_blk145 hRaw\_blk145 50 50 tw corr [ns] 473 Entries Entries 0.1104 0.1101 Mean x Mean x 40 Mean y 5.131 Mean y 4.374 Std Dev x 0.04001 Std Dev x 0.03979 30 30 Std Dev y Std Dev y 22.12 22.14 20 1.4 20 1.4 1.2 10 1.2 10 -10 0.8 -100.8 0.6 -20 0.6 -20-30 0.4 -300.4 0.2 0.2 -40 -400.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 0.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 E [GeV] E [GeV]

HCAL block 146: E vs hcalt (ns) HCAL block 146: E vs hcalt tw corr (ns) hCorr\_blk146 hRaw\_blk146 50 50 t<sub>tw corr</sub> [ns] Entries Entries Mean x 0.09564 Mean x 0.09564 40 Mean y -0.07748 Mean y 0.9758 Std Dev x 0.04784 Std Dev x 0.04784 30 30 Std Dev y 13.17 Std Dev y 13.17 20 1.4 20 1.4 10 1.2 10 1.2 -100.8 0.8 -10-200.6 -200.6 -30 0.4 -300.4 0.2 0.2 -40-400.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 0.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 E [GeV] E [GeV]

HCAL block 147: E vs hcalt (ns) HCAL block 147: E vs hcalt tw corr (ns) hCorr\_blk147 hRaw\_blk147 50 50 t<sub>tw corr</sub> [ns] Entries Entries 341 0.1032 Mean x Mean x 0.1032 40 Mean y 3.31 Mean y 1.281 Std Dev x 0.04186 Std Dev x 0.04186 30 30 Std Dev y 13.75 Std Dev y 13.82 20 1.4 20 10 1.2 1.2 10 -100.8 0.8 -100.6 -200.6 -20-30 0.4 -300.4 0.2 0.2 -40-400.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 0.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 E [GeV] E [GeV]

HCAL block 148: E vs hcalt (ns) HCAL block 148: E vs hcalt tw corr (ns) hCorr\_blk148 hRaw\_blk148 50 50 t<sub>tw corr</sub> [ns] Entries 187 Entries 187 0.1128 Mean x Mean x 0.1128 40 Mean y 3.304 Mean y 1.645 Std Dev x 0.04659 Std Dev x 0.04659 30 30 Std Dev y 13.63 Std Dev y 13.71 20 20 1.4 1.4 1.2 10 1.2 10 -10 0.8 0.8 -100.6 -200.6 -20-30 0.4 -300.4 0.2 0.2 -40-400.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 0.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 E [GeV] E [GeV]

HCAL block 149: E vs hcalt (ns) HCAL block 149: E vs hcalt tw corr (ns) hCorr\_blk149 hRaw\_blk149 50 50 tw corr [ns] Entries 103 Entries 103 0.08127 Mean x Mean x 0.08127 40 Mean y 4.421 Mean y 2.834 Std Dev x 0.04762 Std Dev x 0.04762 30 30 Std Dev y 16.77 Std Dev y 16.78 0.7 20 0.7 20 0.6 0.6 10 10 0.5 0.5 -100.4 0.4 -100.3 -200.3 -20-30 0.2 -300.2 0.1 0.1 -40-400.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 0.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 E [GeV] E [GeV]

HCAL block 150: E vs hcalt (ns) HCAL block 150: E vs hcalt tw corr (ns) hCorr\_blk150 hRaw\_blk150 50 50 t<sub>tw corr</sub> [ns] Entries Entries 188 Mean x 0.1028 Mean x 0.1028 40 Mean y Mean y 0.8257 0.7887 Std Dev x 0.04239 Std Dev x 0.04239 30 30 Std Dev y 14.82 Std Dev y 14.73 20 0.7 20 1.4 0.6 10 10 1.2 0.5 0.8 -10 0.4 -10 0.3 0.6 -20 -20-30 0.2 -300.4 0.2 0.1 -40-400.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 0.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 E [GeV] E [GeV]

HCAL block 151: E vs hcalt (ns) HCAL block 151: E vs hcalt tw corr (ns) hCorr\_blk151 hRaw\_blk151 50 50 t<sub>tw corr</sub> [ns] Entries Entries 405 0.127 Mean x Mean x 0.1262 40 Mean y Mean y 2.579 2.157 Std Dev x 0.04463 Std Dev x 0.04515 30 30 Std Dev y 13.67 Std Dev y 20 1.4 20 1.4 1.2 1.2 10 10 -10 0.8 0.8 -100.6 -200.6 -20-30 0.4 -300.4 0.2 0.2 -40-400.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 0.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 E [GeV] E [GeV]

HCAL block 152: E vs hcalt (ns) HCAL block 152: E vs hcalt tw corr (ns) hCorr\_blk152 hRaw\_blk152 50 50 t<sub>tw corr</sub> [ns] Entries Entries 348 0.128 0.128 Mean x Mean x 40 Mean y 1.829 Mean y -5.231Std Dev x 0.0407 Std Dev x 0.0404 30 30 Std Dev y 14.51 Std Dev y 15.8 20 20 1.4 1.2 1.2 10 10 -10 0.8 -100.8 0.6 -20 0.6 -20-30 0.4 -300.4 0.2 0.2 -40-400.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 0.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 E [GeV] E [GeV]

HCAL block 153: E vs hcalt (ns) HCAL block 153: E vs hcalt tw corr (ns) hCorr\_blk153 hRaw\_blk153 50 50 tw corr [ns] t [ns] Entries Entries 423 0.1256 0.1253 Mean x Mean x 40 Mean y Mean y 1.442 4.682 Std Dev x 0.04455 Std Dev x 0.04494 30 30 Std Dev y 17.15 Std Dev y 20 20 1.4 1.2 10 1.2 10 -10 0.8 -100.8 -20 0.6 0.6 -20-30 0.4 -300.4 0.2 0.2 -40 -400.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 0.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 E [GeV] E [GeV]

HCAL block 154: E vs hcalt (ns) HCAL block 154: E vs hcalt tw corr (ns) hCorr\_blk154 hRaw\_blk154 50 50 t<sub>tw corr</sub> [ns] Entries Entries 221 0.1231 0.1231 Mean x Mean x 40 Mean y 2.329 Mean y 1.985 Std Dev x 0.04257 Std Dev x 0.04257 30 30 Std Dev y 15.17 Std Dev y 20 20 1.4 1.2 1.2 10 10 -10 0.8 -10 0.8 0.6 -20 0.6 -20-30 0.4 -300.4 0.2 0.2 -40-400.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 0.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 E [GeV] E [GeV]

HCAL block 155: E vs hcalt (ns) HCAL block 155: E vs hcalt tw corr (ns) hCorr\_blk155 hRaw\_blk155 50 50 t<sub>tw corr</sub> [ns] Entries 253 Entries 253 Mean x 0.1222 Mean x 0.1222 40 Mean y Mean y 0.9324 0.5192 Std Dev x 0.04458 Std Dev x 0.04458 30 30 Std Dev y 16.14 Std Dev y 16.34 20 0.7 20 1.4 0.6 1.2 10 10 0.5 -10 0.4 0.8 -10-20 0.3 -200.6 -30 0.2 -300.4 0.2 0.1 -40 -400.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 0.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 E [GeV] E [GeV]

HCAL block 156: E vs hcalt (ns) HCAL block 156: E vs hcalt tw corr (ns) hCorr\_blk156 hRaw\_blk156 50 50 t<sub>tw corr</sub> [ns] Entries 110 Entries 110 0.1311 Mean x Mean x 0.1302 40 Mean y Mean y -0.52840.09254 Std Dev x 0.0411 Std Dev x 0.04133 30 30 Std Dev y Std Dev y 16.5 17.55 20 20 1.4 1.4 10 1.2 10 1.2 -10 0.8 0.8 -10-200.6 -200.6 -30 0.4 -300.4 0.2 0.2 -40-400.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 0.1 0.12 0.14 0.16 0.18 0.2 0.02 0.04 0.06 0.08 E [GeV] E [GeV]

HCAL block 157: E vs hcalt (ns) HCAL block 157: E vs hcalt tw corr (ns) hCorr\_blk157 hRaw\_blk157 50 t<sub>tw corr</sub> [ns] 50 Entries 152 Entries 152 0.1276 Mean x Mean x 0.1276 40 Mean y Mean y 3.031 2.742 Std Dev x 0.04429 Std Dev x 0.04429 30 30 Std Dev y 9.172 Std Dev y 9.2 20 1.4 20 1.4 10 1.2 10 1.2 -10 0.8 0.8 -100.6 -200.6 -20-30 0.4 -300.4 0.2 0.2 -40-400.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 0.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 E [GeV] E [GeV]

HCAL block 158: E vs hcalt (ns) HCAL block 158: E vs hcalt tw corr (ns) hCorr\_blk158 hRaw\_blk158 50 50 t<sub>tw corr</sub> [ns] Entries 271 Entries 271 0.12 Mean x 0.1197 Mean x 40 Mean y 0.5625 Mean y -6.539Std Dev x 0.04225 Std Dev x 0.04203 30 30 Std Dev y 12.89 Std Dev y 14.99 20 1.4 20 1.4 10 1.2 10 1.2 0.8 -10 0.8 -100.6 -200.6 -20-30 0.4 -300.4 0.2 0.2 -40-400.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 0.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 E [GeV] E [GeV]

HCAL block 159: E vs hcalt (ns) HCAL block 159: E vs hcalt tw corr (ns) hCorr\_blk159 hRaw\_blk159 50 50 t<sub>tw corr</sub> [ns] Entries Entries 299 0.123 0.123 Mean x Mean x 40 Mean y Mean y 4.834 -2.036Std Dev x 0.03762 Std Dev x 0.03774 30 30 Std Dev y Std Dev y 11.75 20 1.4 20 1.4 1.2 10 1.2 10 -10 0.8 0.8 -10 0.6 -20 0.6 -20-30 0.4 -300.4 0.2 0.2 -40-400.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 0.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 E [GeV] E [GeV]

HCAL block 160: E vs hcalt (ns) HCAL block 160: E vs hcalt tw corr (ns) hCorr\_blk160 hRaw\_blk160 50 t<sub>tw corr</sub> [ns] Entries Entries 490 Mean x 0.1209 Mean x 0.1209 40 Mean y 0.9495 Mean y 1.546 Std Dev x 0.04067 Std Dev x 0.04067 30 30 Std Dev y Std Dev y 14.03 14.08 20 1.4 20 1.4 1.2 1.2 10 10 -10 0.8 0.8 -10 0.6 -20 0.6 -20-30 0.4 -300.4 0.2 0.2 -40-400.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 0.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 E [GeV] E [GeV]

HCAL block 161: E vs hcalt (ns) HCAL block 161: E vs hcalt tw corr (ns) hCorr\_blk161 hRaw\_blk161 50 50 t<sub>tw corr</sub> [ns] Entries Entries 378 378 0.1133 Mean x Mean x 0.1128 40 Mean y 2.102 Mean y 0.4174 Std Dev x 0.04336 Std Dev x 0.04356 30 30 Std Dev y Std Dev y 13.9 20 20 1.4 1.2 10 1.2 10 -100.8 0.8 -100.6 -200.6 -20-30 0.4 -300.4 0.2 0.2 -40-400.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 0.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 E [GeV] E [GeV]

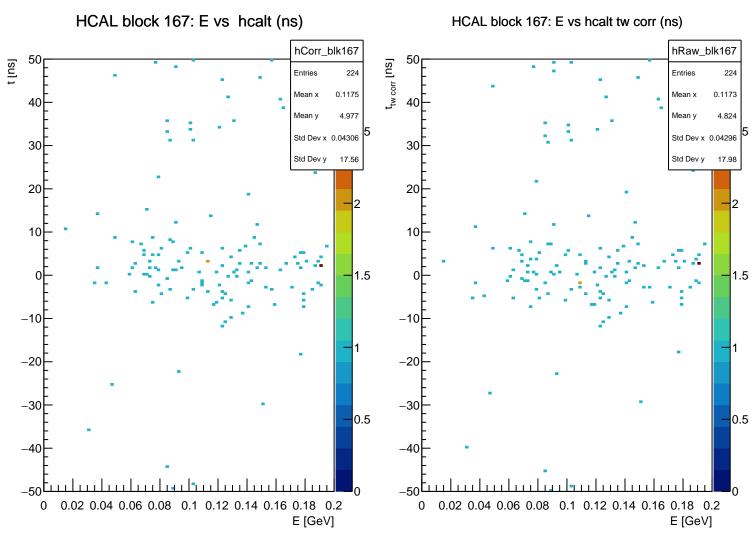
HCAL block 162: E vs hcalt (ns) HCAL block 162: E vs hcalt tw corr (ns) hCorr\_blk162 hRaw\_blk162 50 t<sub>tw corr</sub> [ns] 50 Entries Entries 423 0.1231 Mean x Mean x 0.1231 40 Mean y Mean y 1.429 1.69 Std Dev x 0.04049 Std Dev x 0.04049 30 30 Std Dev y 13.27 Std Dev y 13.53 20 1.4 20 1.4 1.2 10 1.2 10 -10 0.8 0.8 -10-200.6 -200.6 -30 0.4 -300.4 0.2 0.2 -40-400.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 0.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 E [GeV] E [GeV]

HCAL block 163: E vs hcalt (ns) HCAL block 163: E vs hcalt tw corr (ns) hCorr\_blk163 hRaw\_blk163 50 50 t<sub>tw corr</sub> [ns] Entries Entries 397 0.1306 Mean x Mean x 0.1306 40 Mean y 1.248 Mean y -1.784Std Dev x 0.04032 Std Dev x 0.04032 30 30 Std Dev y Std Dev y 16.2 16.13 20 20 1.4 1.4 1.2 1.2 10 10 -10 0.8 0.8 -10 0.6 -200.6 -20-30 0.4 -300.4 0.2 0.2 -40-400.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 0.1 0.12 0.14 0.16 0.18 0.2 0.02 0.04 0.06 0.08 E [GeV] E [GeV]

HCAL block 164: E vs hcalt (ns) HCAL block 164: E vs hcalt tw corr (ns) hCorr\_blk164 hRaw\_blk164 50 50 tw corr [ns] Entries Entries 332 0.1238 Mean x Mean x 0.1238 40 Mean y 3.711 Mean y -2.771Std Dev x 0.04191 Std Dev x 0.04188 30 30 Std Dev y 15.97 Std Dev y 16.98 20 20 1.4 1.4 1.2 10 10 1.2 -10 0.8 0.8 -10 0.6 -20 0.6 -20-30 0.4 -300.4 0.2 0.2 -40 -400.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 0.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 E [GeV] E [GeV]

HCAL block 165: E vs hcalt (ns) HCAL block 165: E vs hcalt tw corr (ns) hCorr\_blk165 hRaw\_blk165 50 50 tw corr [ns] Entries 352 Entries 352 0.1223 Mean x Mean x 0.1219 Mean y 2.935 -0.5427Std Dev x 0.0396 Std Dev x 0.03954 30 30 Std Dev y 15.99 Std Dev y 20 1.4 20 10 1.2 10 1.2 0.8 -10 -100.8 -20 0.6 -200.6 -30 0.4 -300.4 0.2 0.2 -40 -400.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 0.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 E [GeV] E [GeV]

HCAL block 166: E vs hcalt (ns) HCAL block 166: E vs hcalt tw corr (ns) hCorr\_blk166 hRaw\_blk166 50 50 tw corr [ns] Entries 316 Entries 316 Mean x 0.114 Mean x 0.1137 40 Mean y 3.002 Mean y 2.708 Std Dev x 0.04594 Std Dev x 0.04609 30 30 Std Dev y Std Dev y 14.12 20 1.4 20 1.4 10 1.2 10 1.2 -10 0.8 0.8 -100.6 -20 0.6 -20-30 0.4 -300.4 0.2 0.2 -40 -400.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 0.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 E [GeV] E [GeV]



HCAL block 168: E vs hcalt (ns) HCAL block 168: E vs hcalt tw corr (ns) hCorr\_blk168 hRaw\_blk168 50 50 tw corr [ns] Entries 245 Entries 245 0.1192 0.1202 Mean x Mean x 40 Mean y 4.647 Mean y 5.398 Std Dev x 0.04311 Std Dev x 0.04353 30 30 Std Dev y 19.31 Std Dev y 17.8 20 1.4 20 1.4 1.2 1.2 10 10 -10 0.8 0.8 -10-20 0.6 0.6 -20-30 0.4 -300.4 0.2 0.2 -40-400.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 0.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 E [GeV] E [GeV]

HCAL block 169: E vs hcalt (ns) HCAL block 169: E vs hcalt tw corr (ns) hCorr\_blk169 hRaw\_blk169 50 50 t<sub>tw corr</sub> [ns] Entries 105 Entries 105 0.0942 Mean x Mean x 0.0942 40 Mean y Mean y 0.04426 1.056 Std Dev x 0.04518 Std Dev x 0.04518 30 30 Std Dev y 10.87 Std Dev y 10.93 20 0.7 20 1.4 0.6 10 10 1.2 0.5 -10 0.4 0.8 -10-200.3 -200.6 -30 0.2 -300.4 0.2 0.1 -40-400.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 0.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 E [GeV] E [GeV]

HCAL block 170: E vs hcalt (ns) HCAL block 170: E vs hcalt tw corr (ns) hCorr\_blk170 hRaw\_blk170 50 50 t<sub>tw corr</sub> [ns] Entries Entries 366 Mean x 0.1299 Mean x 0.1299 Mean y 0.01846 Mean y -3.051Std Dev x 0.04272 Std Dev x 0.04283 30 30 Std Dev y 12.15 Std Dev y 11.61 20 1.4 20 1.4 10 1.2 10 1.2 -100.8 0.8 -100.6 0.6 -20-20-30 0.4 -300.4 0.2 0.2 -40-400.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 0.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 E [GeV] E [GeV]

HCAL block 171: E vs hcalt (ns) HCAL block 171: E vs hcalt tw corr (ns) hCorr\_blk171 hRaw\_blk171 50 50 t<sub>tw corr</sub> [ns] Entries 203 Entries 203 0.1089 Mean x 0.1086 Mean x 40 Mean y 3.345 Mean y 2.327 Std Dev x 0.0432 Std Dev x 0.04328 30 30 Std Dev y 12.29 Std Dev y 12.8 20 1.4 20 1.4 1.2 1.2 10 10 -100.8 0.8 -100.6 -200.6 -20-30 0.4 -300.4 0.2 0.2 -40-400.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 0.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 E [GeV] E [GeV]

HCAL block 172: E vs hcalt (ns) HCAL block 172: E vs hcalt tw corr (ns) hCorr\_blk172 hRaw\_blk172 50 tw corr [ns] Entries Entries 430 0.1231 Mean x Mean x 0.1235 40 Mean y 1.849 Mean y 0.6048 Std Dev x 0.04172 Std Dev x 0.04181 30 30 Std Dev y 12.25 Std Dev y 13.06 20 1.4 20 1.4 1.2 1.2 10 10 -10 0.8 0.8 -100.6 -200.6 -20-30 0.4 -300.4 0.2 0.2 -40-400.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 0.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 E [GeV] E [GeV]

HCAL block 173: E vs hcalt (ns) HCAL block 173: E vs hcalt tw corr (ns) hCorr\_blk173 hRaw\_blk173 50 t<sub>tw corr</sub> [ns] Entries 355 Entries 355 Mean x 0.124 Mean x 0.1242 40 Mean y 1.225 Mean y -2.236Std Dev x 0.04223 Std Dev x 0.04225 30 30 Std Dev y 12.65 Std Dev y 12.28 20 1.4 20 1.4 10 1.2 10 1.2 -100.8 0.8 -100.6 -200.6 -20-300.4 -300.4 0.2 0.2 -40-400.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 0.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 E [GeV] E [GeV]

HCAL block 174: E vs hcalt (ns) HCAL block 174: E vs hcalt tw corr (ns) hCorr\_blk174 hRaw\_blk174 50 tw corr [ns] 50 Entries Entries 405 Mean x 0.1236 Mean x 0.1051 40 Mean y Mean y -30.781.11 Std Dev x 0.04245 Std Dev x 0.04679 30 30 Std Dev y 16.19 Std Dev y 20.57 0.7 20 20 0.6 10 10 1.5 0.5 -10 -100.4 0.3 -20-20-30 -300.2 0.5 0.1 -40 -400.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 0.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 E [GeV] E [GeV]

HCAL block 175: E vs hcalt (ns) HCAL block 175: E vs hcalt tw corr (ns) hCorr\_blk175 hRaw\_blk175 50 50 tw corr [ns] Entries Entries 351 0.1244 Mean x Mean x 0.1244 40 Mean y 2.216 Mean y 1.555 Std Dev x 0.04465 Std Dev x 0.04465 30 30 Std Dev y 15.04 Std Dev y 15.09 20 20 1.4 1.4 1.2 10 1.2 10 -10 0.8 0.8 -10 0.6 -20 0.6 -20-30 0.4 -300.4 0.2 0.2 -40-400.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 0.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 E [GeV] E [GeV]

HCAL block 176: E vs hcalt (ns) HCAL block 176: E vs hcalt tw corr (ns) hCorr\_blk176 hRaw\_blk176 50 50 t<sub>tw corr</sub> [ns] Entries Entries 410 0.1331 Mean x Mean x 0.1336 40 Mean y Mean y 2.611 0.55 Std Dev x 0.04212 Std Dev x 0.04152 30 30 Std Dev y 17.13 Std Dev y 16.77 20 1.4 20 1.4 1.2 10 1.2 10 0.8 -10 0.8 -10 0.6 0.6 -20 -20-30 0.4 -300.4 0.2 0.2 -40 -400.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 0.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 E [GeV] E [GeV]

HCAL block 177: E vs hcalt (ns) HCAL block 177: E vs hcalt tw corr (ns) hCorr\_blk177 hRaw\_blk177 50 50 t<sub>tw corr</sub> [ns] Entries Entries 396 0.1139 Mean x Mean x 0.1132 40 Mean y 3.258 Mean y 2.4 Std Dev x 0.04448 Std Dev x 0.04461 30 30 Std Dev y 15.32 Std Dev y 15.5 20 20 1.4 1.4 1.2 10 1.2 10 -100.8 0.8 -100.6 -200.6 -20-30 0.4 -300.4 0.2 0.2 -40 -400.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 0.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 E [GeV] E [GeV]

HCAL block 178: E vs hcalt (ns) HCAL block 178: E vs hcalt tw corr (ns) hCorr\_blk178 hRaw\_blk178 50 50 tw corr [ns] Entries Entries 0.05562 Mean x Mean x 0.05586 40 Mean y 6.361 Mean y 8.186 Std Dev x 0.03592 Std Dev x 0.03566 30 30 Std Dev y 18.58 Std Dev y 15.85 20 0.7 20 0.7 0.6 10 0.6 10 0.5 0.5 0.4 0.4 -10-10-200.3 -200.3 -30 0.2 -300.2 0.1 0.1 -40-400.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 0.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 E [GeV] E [GeV]

HCAL block 179: E vs hcalt (ns) HCAL block 179: E vs hcalt tw corr (ns) hCorr\_blk179 hRaw\_blk179 50 t<sub>tw corr</sub> [ns] Entries Entries 211 Mean x 0.111 Mean x 0.1103 40 Mean y 0.05856 -0.1995Std Dev x 0.04518 Std Dev x 0.04568 30 30 Std Dev y 13.54 Std Dev y 20 1.4 20 1.4 10 1.2 10 1.2 -100.8 0.8 -100.6 -200.6 -20-30 0.4 -300.4 0.2 0.2 -40-400.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 0.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 E [GeV] E [GeV]

HCAL block 180: E vs hcalt (ns) HCAL block 180: E vs hcalt tw corr (ns) hCorr\_blk180 hRaw\_blk180 50 50 tw corr [ns] Entries 454 Entries 0.108 Mean x Mean x 0.108 40 Mean y 2.299 Mean y 2.058 Std Dev x 0.05265 Std Dev x 0.05257 30 30 Std Dev y 23.14 Std Dev y 22.97 20 20 0.7 1.4 0.6 10 1.2 10 0.5 0.4 -100.8 -100.3 -200.6 -20-30 0.4 -300.2 0.1 0.2 -40 -400.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 0.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 E [GeV] E [GeV]

HCAL block 181: E vs hcalt (ns) HCAL block 181: E vs hcalt tw corr (ns) hCorr\_blk181 hRaw\_blk181 50  $\tau_{\text{tw corr}} \, \text{lns]}$ 50 Entries Entries 286 0.1248 Mean x Mean x 0.1241 40 Mean y 0.7252 Mean y 0.875 Std Dev x 0.04026 Std Dev x 0.04068 30 30 Std Dev y Std Dev y 13.54 14.39 20 1.4 20 10 1.2 10 1.2 -100.8 0.8 -100.6 -200.6 -20-30 0.4 -300.4 0.2 0.2 -40-400.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 0.1 0.12 0.14 0.16 0.18 0.2 0.02 0.04 0.06 0.08 E [GeV] E [GeV]

HCAL block 182: E vs hcalt (ns) HCAL block 182: E vs hcalt tw corr (ns) hCorr\_blk182 hRaw\_blk182 50 50 t<sub>tw corr</sub> [ns] Entries Entries 301 0.1301 Mean x Mean x 0.1308 40 Mean y 2.035 Mean y 2.179 Std Dev x 0.04176 Std Dev x 0.04099 30 30 Std Dev y Std Dev y 14.55 20 1.4 20 1.4 1.2 1.2 10 10 -10 0.8 0.8 -100.6 -20 0.6 -20-30 0.4 -300.4 0.2 0.2 -40-400.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 0.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 E [GeV] E [GeV]

HCAL block 183: E vs hcalt (ns) HCAL block 183: E vs hcalt tw corr (ns) hCorr\_blk183 hRaw\_blk183 50 50  $t_{\text{tw corr}} \, \text{lns} \, J$ Entries 327 Entries 327 0.1306 0.131 Mean x Mean x 40 Mean y Mean y 3.302 0.1068 Std Dev x 0.03999 Std Dev x 0.03953 30 30 Std Dev y Std Dev y 14.03 14.18 20 20 1.4 1.4 1.2 1.2 10 10 -10 0.8 0.8 -10 0.6 -20 0.6 -20-30 0.4 -300.4 0.2 0.2 -40-400.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 0.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 E [GeV] E [GeV]

HCAL block 184: E vs hcalt (ns) HCAL block 184: E vs hcalt tw corr (ns) hCorr\_blk184 hRaw\_blk184 50 50 t<sub>tw corr</sub> [ns] Entries Entries 271 0.1214 Mean x Mean x 0.1219 40 Mean y Mean y 1.179 -0.6347Std Dev x 0.03971 Std Dev x 0.04005 30 30 Std Dev y Std Dev y 11.13 20 20 1.2 1.2 10 10 -10 0.8 0.8 -100.6 -200.6 -20-30 0.4 -300.4 0.2 0.2 -40-400.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 0.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 E [GeV] E [GeV]

HCAL block 185: E vs hcalt (ns) HCAL block 185: E vs hcalt tw corr (ns) hCorr\_blk185 hRaw\_blk185 50 50 t<sub>tw corr</sub> [ns] Entries Entries 387 0.1326 Mean x Mean x 0.1326 40 Mean y 2.845 Mean y 2.905 Std Dev x 0.04185 Std Dev x 0.04185 30 30 Std Dev y Std Dev y 20 1.4 20 1.4 1.2 1.2 10 10 -10 0.8 0.8 -100.6 -200.6 -20-30 0.4 -300.4 0.2 0.2 -40-400.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 0.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 E [GeV] E [GeV]

HCAL block 186: E vs hcalt (ns) HCAL block 186: E vs hcalt tw corr (ns) hCorr\_blk186 hRaw\_blk186 50 50 t<sub>tw corr</sub> [ns] Entries Entries 220 Mean x 0.1156 Mean x 0.1155 40 Mean y -0.1281Mean y -3.74Std Dev x 0.04176 Std Dev x 0.04176 30 30 Std Dev y 12.09 Std Dev y 12.23 20 1.4 20 1.4 1.2 1.2 10 10 0.8 -10 0.8 -10-200.6 -200.6 -30 0.4 -300.4 0.2 0.2 -40-400.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 0.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 E [GeV] E [GeV]

HCAL block 187: E vs hcalt (ns) HCAL block 187: E vs hcalt tw corr (ns) hCorr\_blk187 hRaw\_blk187 50 50 t<sub>tw corr</sub> [ns] Entries Entries 360 0.1265 0.1261 Mean x Mean x 40 Mean y Mean y 0.9734 -3.732Std Dev x 0.04438 Std Dev x 0.04423 30 30 Std Dev y 13.42 Std Dev y 20 1.4 20 1.4 1.2 1.2 10 10 -100.8 -100.8 -20 0.6 0.6 -20-30 0.4 -300.4 0.2 0.2 -40-400.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 0.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 E [GeV] E [GeV]

HCAL block 188: E vs hcalt (ns) HCAL block 188: E vs hcalt tw corr (ns) hCorr\_blk188 hRaw\_blk188 50 50 t<sub>tw corr</sub> [ns] Entries Entries 0.1276 Mean x Mean x 0.1279 40 Mean y -0.07188 Mean y -1.884Std Dev x 0.04321 Std Dev x 0.04285 30 30 Std Dev y Std Dev y 15.84 16.01 20 1.4 20 1.4 1.2 10 1.2 10 -10 0.8 0.8 -10-20 0.6 0.6 -20-30 0.4 -300.4 0.2 0.2 -40-400.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 0.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 E [GeV] E [GeV]

HCAL block 189: E vs hcalt (ns) HCAL block 189: E vs hcalt tw corr (ns) hCorr\_blk189 hRaw\_blk189 50 50 t<sub>tw corr</sub> [ns] Entries Entries 320 0.1288 Mean x Mean x 0.1276 40 Mean y 2.386 Mean y -5.488Std Dev x 0.04155 Std Dev x 0.04181 30 30 Std Dev y 15.71 Std Dev y 17.43 20 20 1.4 1.4 10 1.2 1.2 10 0.8 -10 0.8 -100.6 0.6 -20 -20-30 0.4 -300.4 0.2 0.2 -40 -400.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 0.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 E [GeV] E [GeV]

HCAL block 190: E vs hcalt (ns) HCAL block 190: E vs hcalt tw corr (ns) hCorr\_blk190 hRaw\_blk190 50 50 t<sub>tw corr</sub> [ns] Entries 279 Entries 279 0.1214 Mean x Mean x 0.1216 40 Mean y 2.641 Mean y 2.516 Std Dev x 0.04811 Std Dev x 0.04804 30 30 Std Dev y 16.32 Std Dev y 15.83 20 1.4 20 1.4 1.2 10 1.2 10 -100.8 0.8 -10-20 0.6 0.6 -20-300.4 -300.4 0.2 0.2 -40-400.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 0.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 E [GeV] E [GeV]

HCAL block 191: E vs hcalt (ns) HCAL block 191: E vs hcalt tw corr (ns) hCorr\_blk191 hRaw\_blk191 50 50 t<sub>tw corr</sub> [ns] Entries Entries 199 0.1173 0.1173 Mean x Mean x 40 Mean y 4.079 Mean y 3.639 Std Dev x 0.04189 Std Dev x 0.04189 30 30 Std Dev y 13.85 Std Dev y 13.83 20 1.4 20 1.4 1.2 10 1.2 10 -10 0.8 0.8 -10 0.6 0.6 -20 -20-30 0.4 -30 0.4 0.2 0.2 -40-400.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 0.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 E [GeV] E [GeV]

HCAL block 192: E vs hcalt (ns) HCAL block 192: E vs hcalt tw corr (ns) hCorr\_blk192 hRaw\_blk192 50 50 t<sub>tw corr</sub> [ns] t [ns] Entries 283 Entries 283 Mean x 0.111 Mean x 0.111 40 Mean y Mean y 1.544 0.7582 Std Dev x 0.04739 Std Dev x 0.04739 30 30 Std Dev y 19.63 Std Dev y 19.54 20 0.7 20 0.7 0.6 0.6 10 10 0.5 0.5 -100.4 -100.4 0.3 -20 0.3 -20-30 0.2 -300.2 0.1 0.1 -40-400.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 0.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 E [GeV] E [GeV]

HCAL block 193: E vs hcalt (ns) HCAL block 193: E vs hcalt tw corr (ns) hCorr\_blk193 hRaw\_blk193 50 50 t<sub>tw corr</sub> [ns] Entries 129 Entries 129 Mean x 0.1281 Mean x 0.1281 40 0.1588 Mean y -0.1271Mean y Std Dev x 0.04401 Std Dev x 0.04401 30 30 Std Dev y 12.91 Std Dev y 13.01 0.7 20 0.7 20 0.6 0.6 10 10 0.5 0.5 -10 -100.4 0.4 0.3 -200.3 -20-30 0.2 -300.2 0.1 0.1 -40-400.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 0.1 0.12 0.14 0.16 0.18 0.2 0.02 0.04 0.06 0.08 E [GeV] E [GeV]

HCAL block 194: E vs hcalt (ns) HCAL block 194: E vs hcalt tw corr (ns) hCorr\_blk194 hRaw\_blk194 50 50 t<sub>tw corr</sub> [ns] Entries Entries 255 0.1129 Mean x Mean x 0.1129 40 Mean y 0.09635 Mean y -0.3913Std Dev x 0.04029 Std Dev x 0.04029 30 30 Std Dev y 13.67 Std Dev y 13.74 20 20 1.4 10 1.2 10 1.2 -10 0.8 0.8 -100.6 -20 0.6 -20-30 0.4 -300.4 0.2 0.2 -40-400.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 0.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 E [GeV] E [GeV]

HCAL block 195: E vs hcalt (ns) HCAL block 195: E vs hcalt tw corr (ns) hCorr\_blk195 hRaw\_blk195 50 t<sub>tw corr</sub> [ns] 50 Entries 220 Entries 220 0.1279 Mean x Mean x 0.1279 40 Mean y 0.09598 -0.1398Std Dev x 0.04177 Std Dev x 0.04177 30 30 Std Dev y 13.28 Std Dev y 13.16 20 1.4 20 1.4 1.2 10 1.2 10 0.8 -10 0.8 -10 0.6 -200.6 -20-30 0.4 -300.4 0.2 0.2 -40-400.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 0.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 E [GeV] E [GeV]

HCAL block 196: E vs hcalt (ns) HCAL block 196: E vs hcalt tw corr (ns) hCorr\_blk196 hRaw\_blk196 50 50 t<sub>tw corr</sub> [ns] Entries Entries 350 Mean x 0.1296 Mean x 0.1296 40 Mean y 0.08054 Mean y 1.022 Std Dev x 0.04124 Std Dev x 0.04124 30 30 Std Dev y 12.15 Std Dev y 12.06 20 1.4 20 1.4 1.2 10 1.2 10 0.8 -10 0.8 -100.6 -20 0.6 -20-30 0.4 -300.4 0.2 0.2 -40-400.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 0.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 E [GeV] E [GeV]

HCAL block 197: E vs hcalt (ns) HCAL block 197: E vs hcalt tw corr (ns) hCorr\_blk197 hRaw\_blk197 50 50 t<sub>tw corr</sub> [ns] Entries Entries 199 0.1173 Mean x Mean x 0.1173 40 Mean y Mean y 2.124 3.358 Std Dev x 0.04253 Std Dev x 0.04253 30 30 Std Dev y 12.61 Std Dev y 12.58 20 1.4 20 1.4 10 1.2 10 1.2 -10 0.8 0.8 -10 -200.6 -200.6 -30 0.4 -300.4 0.2 0.2 -40-400.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 0.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 E [GeV] E [GeV]

HCAL block 198: E vs hcalt (ns) HCAL block 198: E vs hcalt tw corr (ns) hCorr\_blk198 hRaw\_blk198 50 50 tw corr [ns] Entries Entries 366 0.1227 Mean x Mean x 0.1227 40 Mean y 2.907 Mean y 0.2815 Std Dev x 0.04272 Std Dev x 0.04282 30 30 Std Dev y Std Dev y 14.94 14.61 20 1.4 20 1.2 1.2 10 10 0.8 -10 0.8 -100.6 -20 0.6 -20-30 0.4 -300.4 0.2 0.2 -40-400.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 0.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 E [GeV] E [GeV]

HCAL block 199: E vs hcalt (ns) HCAL block 199: E vs hcalt tw corr (ns) hCorr\_blk199 hRaw\_blk199 50 50 t<sub>tw corr</sub> [ns] Entries Entries 388 0.1313 Mean x Mean x 0.1317 40 Mean y Mean y 1.095 -1.812Std Dev x 0.04549 Std Dev x 0.04475 30 30 Std Dev y Std Dev y 14.79 15.14 20 1.4 20 1.4 1.2 1.2 10 10 0.8 -10 0.8 -10 0.6 0.6 -20-20-30 0.4 -300.4 0.2 0.2 -40-400.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 0.1 0.12 0.14 0.16 0.18 0.2 0.02 0.04 0.06 0.08 E [GeV] E [GeV]

HCAL block 200: E vs hcalt (ns) HCAL block 200: E vs hcalt tw corr (ns) hCorr\_blk200 hRaw\_blk200 50 50 tw corr [ns] Entries Entries 337 0.1239 0.1249 Mean x Mean x 40 Mean y 1.911 Mean y -1.802Std Dev x 0.03705 Std Dev x 0.03682 30 30 Std Dev y 17.18 Std Dev y 17.9 20 1.4 20 1.4 10 1.2 10 1.2 -10 0.8 0.8 -100.6 -20 0.6 -20-30 0.4 -300.4 0.2 0.2 -40-400.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 0.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 E [GeV] E [GeV]

HCAL block 201: E vs hcalt (ns) HCAL block 201: E vs hcalt tw corr (ns) hCorr\_blk201 hRaw\_blk201 50 50 t<sub>tw corr</sub> [ns] Entries Entries 0.1188 Mean x Mean x 0.1195 40 Mean y -0.09368 Mean y 2.089 Std Dev x 0.03905 Std Dev x 0.03937 30 30 Std Dev y Std Dev y 16.49 20 20 1.4 1.4 10 1.2 10 1.2 -100.8 -100.8 0.6 0.6 -20-20-30 0.4 -300.4 0.2 0.2 -40 -400.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 0.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 E [GeV] E [GeV]

HCAL block 202: E vs hcalt (ns) HCAL block 202: E vs hcalt tw corr (ns) hCorr\_blk202 hRaw\_blk202 50 50 t<sub>tw corr</sub> [ns] Entries 298 Entries 298 Mean x 0.118 Mean x 0.1186 40 Mean y 1.442 Mean y 1.283 Std Dev x 0.0455 Std Dev x 0.04495 30 30 Std Dev y 16.26 Std Dev y 15.72 20 1.4 20 1.4 10 1.2 10 1.2 -10 0.8 0.8 -100.6 -200.6 -20-30 0.4 -300.4 0.2 0.2 -40 -400.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 0.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 E [GeV] E [GeV]

HCAL block 203: E vs hcalt (ns) HCAL block 203: E vs hcalt tw corr (ns) hCorr\_blk203 hRaw\_blk203 50 50 t<sub>tw corr</sub> [ns] Entries 335 Entries 335 0.1246 Mean x 0.1243 Mean x 40 Mean y Mean y 5.399 5.275 Std Dev x 0.047 Std Dev x 0.04704 30 30 Std Dev y 16.01 Std Dev y 15.49 20 1.4 20 1.4 1.2 10 10 1.2 0.8 -100.8 -100.6 -20 0.6 -20-30 0.4 -300.4 0.2 0.2 -40-400.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 0.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 E [GeV] E [GeV]

HCAL block 204: E vs hcalt (ns) HCAL block 204: E vs hcalt tw corr (ns) hCorr\_blk204 hRaw\_blk204 50 50  $t_{\text{tw corr}} \, \text{lns} \, J$ Entries Entries Mean x 0.06302 Mean x 0.06302 40 Mean y Mean y 5.591 3.135 Std Dev x 0.04355 Std Dev x 0.04355 30 30 Std Dev y 18.09 Std Dev y 18.85 20 0.7 20 0.7 0.6 10 10 0.6 0.5 0.5 0.4 0.4 -10-10-200.3 -200.3 -300.2 -300.2 0.1 0.1 -40-400.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 0.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 E [GeV] E [GeV]

HCAL block 205: E vs hcalt (ns) HCAL block 205: E vs hcalt tw corr (ns) hCorr\_blk205 hRaw\_blk205 50 50  $t_{\text{tw corr}} \, \text{lns} \, J$ Entries 172 Entries 172 0.1258 Mean x Mean x 0.1258 40 Mean y 2.887 Mean y 2.639 Std Dev x 0.03847 Std Dev x 0.03847 30 30 Std Dev y 13.38 Std Dev y 13.45 20 1.4 20 1.4 10 1.2 10 1.2 -10 0.8 0.8 -10 0.6 -20 0.6 -20-30 0.4 -300.4 0.2 0.2 -40-400.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 0.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 E [GeV] E [GeV]

HCAL block 206: E vs hcalt (ns) HCAL block 206: E vs hcalt tw corr (ns) hCorr\_blk206 hRaw\_blk206 50 50  $t_{\text{tw corr}} \, \text{lns} \, J$ Entries Entries 202 0.1355 Mean x Mean x 0.1355 40 Mean y Mean y 4.234 4.348 Std Dev x 0.04101 Std Dev x 0.04101 30 30 Std Dev y Std Dev y 13.3 13.25 20 20 1.4 1.4 1.2 10 1.2 10 -10 0.8 0.8 -10 0.6 -200.6 -20-30 0.4 -300.4 0.2 0.2 -40-400.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 0.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 E [GeV] E [GeV]

HCAL block 207: E vs hcalt (ns) HCAL block 207: E vs hcalt tw corr (ns) hCorr\_blk207 hRaw\_blk207 50 50 t<sub>tw corr</sub> [ns] Entries Entries 323 0.1343 Mean x Mean x 0.1343 40 Mean y Mean y 3.888 3.782 Std Dev x 0.03764 Std Dev x 0.03764 30 30 Std Dev y Std Dev y 11.61 20 20 1.4 1.4 1.2 10 1.2 10 -10 0.8 0.8 -10 0.6 -200.6 -20-30 0.4 -300.4 0.2 0.2 -40-400.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 0.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 E [GeV] E [GeV]

HCAL block 208: E vs hcalt (ns) HCAL block 208: E vs hcalt tw corr (ns) hCorr\_blk208 hRaw\_blk208 50 50  $t_{\text{tw corr}} \, \text{lns} \, J$ Entries 173 Entries 173 Mean x 0.1294 Mean x 0.1294 40 Mean y Mean y 0.4768 0.242 Std Dev x 0.04117 Std Dev x 0.04117 30 30 Std Dev y 13.01 Std Dev y 13.18 20 20 1.4 1.4 1.2 10 1.2 10 -10 0.8 0.8 -100.6 -200.6 -20-30 0.4 -300.4 0.2 0.2 -40-400.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 0.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 E [GeV] E [GeV]

HCAL block 209: E vs hcalt (ns) HCAL block 209: E vs hcalt tw corr (ns) hCorr\_blk209 hRaw\_blk209 50 50 t<sub>tw corr</sub> [ns] Entries Entries 414 0.1238 0.1241 Mean x Mean x 40 Mean y Mean y 3.44 -1.905Std Dev x 0.04245 Std Dev x 0.04288 30 30 Std Dev y 12.64 Std Dev y 12.66 20 1.4 20 1.4 1.2 10 1.2 10 0.8 -10 0.8 -10-20 0.6 -200.6 -30 0.4 -300.4 0.2 0.2 -40-400.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 0.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 E [GeV] E [GeV]

HCAL block 210: E vs hcalt (ns) HCAL block 210: E vs hcalt tw corr (ns) hCorr\_blk210 hRaw\_blk210 50 t<sub>tw corr</sub> [ns] t [ns] Entries 169 Entries 169 0.1023 Mean x Mean x 0.1023 40 Mean y 0.9034 Mean y 0.1016 Std Dev x 0.04267 Std Dev x 0.04267 30 30 Std Dev y 13.38 Std Dev y 13.35 20 0.7 20 1.4 0.6 1.2 10 10 0.5 -100.4 0.8 -100.6 -200.3 -20-30 0.2 -300.4 0.2 0.1 -40-400.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 0.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 E [GeV] E [GeV]

HCAL block 211: E vs hcalt (ns) HCAL block 211: E vs hcalt tw corr (ns) hCorr\_blk211 hRaw\_blk211 50 50 t<sub>tw corr</sub> [ns] Entries Entries 399 Mean x 0.125 Mean x 0.1249 40 Mean y Mean y 5.622 1.366 Std Dev x 0.04508 Std Dev x 0.04502 30 30 Std Dev y 16.41 Std Dev y 16.68 20 1.4 20 1.4 10 1.2 10 1.2 -100.8 -100.8 -20 0.6 0.6 -20-30 0.4 -300.4 0.2 0.2 -40-400.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 0.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 E [GeV] E [GeV]

HCAL block 212: E vs hcalt (ns) HCAL block 212: E vs hcalt tw corr (ns) hCorr\_blk212 hRaw\_blk212 50 50 t<sub>tw corr</sub> [ns] 374 Entries 374 Entries 0.124 Mean x Mean x 0.1233 40 Mean y 4.172 Mean y -2.484Std Dev x 0.04648 Std Dev x 0.04659 30 30 Std Dev y 17.69 Std Dev y 20 20 1.4 1.4 10 1.2 10 1.2 -100.8 -100.8 0.6 -200.6 -20-30 0.4 -300.4 0.2 0.2 -40-400.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 0.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 E [GeV] E [GeV]

HCAL block 213: E vs hcalt (ns) HCAL block 213: E vs hcalt tw corr (ns) hCorr\_blk213 hRaw\_blk213 50 50 tw corr [ns] Entries Entries 393 0.1261 Mean x Mean x 0.1255 40 Mean y 0.5576 Mean y -2.069Std Dev x 0.04659 Std Dev x 0.04665 30 30 Std Dev y 19.27 Std Dev y 21.31 20 20 1.4 1.4 1.2 10 1.2 10 -100.8 -100.8 0.6 -200.6 -20-30 0.4 -300.4 0.2 0.2 -40-400.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 0.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 E [GeV] E [GeV]

HCAL block 214: E vs hcalt (ns) HCAL block 214: E vs hcalt tw corr (ns) hCorr\_blk214 hRaw\_blk214 50 50 tw corr [ns] Entries Entries 310 0.1264 Mean x Mean x 0.1269 40 Mean y Mean y 2.244 1.464 Std Dev x 0.04321 Std Dev x 0.04249 30 30 Std Dev y 17.12 Std Dev y 17.34 20 20 1.4 1.4 1.2 10 1.2 10 -10 0.8 -100.8 0.6 -200.6 -20-30 0.4 -300.4 0.2 0.2 -40 -400.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 0.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 E [GeV] E [GeV]

HCAL block 215: E vs hcalt (ns) HCAL block 215: E vs hcalt tw corr (ns) hCorr\_blk215 hRaw\_blk215 50 50 t<sub>tw corr</sub> [ns] Entries 223 Entries 223 0.1146 Mean x Mean x 0.1146 40 Mean y 2.505 Mean y 1.974 Std Dev x 0.04099 Std Dev x 0.04099 30 30 Std Dev y Std Dev y 14.9 14.96 20 1.4 20 1.4 10 1.2 10 1.2 0.8 -10 0.8 -100.6 0.6 -20-20-30 0.4 -300.4 0.2 0.2 -40-400.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 0.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 E [GeV] E [GeV]

HCAL block 216: E vs hcalt (ns) HCAL block 216: E vs hcalt tw corr (ns) hCorr\_blk216 hRaw\_blk216 50 50 t<sub>tw corr</sub> [ns] Entries 185 Entries 185 Mean x 0.1161 Mean x 0.1161 40 -0.3186-0.2782Std Dev x 0.0418 Std Dev x 0.04203 30 30 Std Dev y 18.75 Std Dev y 18.13 20 0.7 20 1.4 0.6 10 10 1.2 0.5 0.4 0.8 -10-10-200.3 -200.6 -300.2 -300.4 0.2 0.1 -40-400.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 0.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 E [GeV] E [GeV]

HCAL block 217: E vs hcalt (ns) HCAL block 217: E vs hcalt tw corr (ns) hCorr\_blk217 hRaw\_blk217 50 50 tw corr [ns] Entries 109 Entries 109 0.1012 Mean x Mean x 0.1011 40 Mean y Mean y 3.441 3.129 Std Dev x 0.04386 Std Dev x 0.04363 30 30 Std Dev y 15.82 Std Dev y 16.27 20 20 1.4 1.4 10 1.2 10 1.2 -100.8 -100.8 0.6 -200.6 -20-30 0.4 -300.4 0.2 0.2 -40-400.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 0.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 E [GeV] E [GeV]

HCAL block 218: E vs hcalt (ns) HCAL block 218: E vs hcalt tw corr (ns) hCorr\_blk218 hRaw\_blk218 50 50 t<sub>tw corr</sub> [ns] Entries Entries 350 0.1366 Mean x Mean x 0.1366 40 Mean y 4.652 Mean y 4.551 Std Dev x 0.03934 Std Dev x 0.03934 30 30 Std Dev y 16.16 Std Dev y 16.18 20 1.4 20 1.4 10 1.2 10 1.2 -10 0.8 0.8 -100.6 -20 0.6 -20-30 0.4 -300.4 0.2 0.2 -40-400.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 0.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 E [GeV] E [GeV]

HCAL block 219: E vs hcalt (ns) HCAL block 219: E vs hcalt tw corr (ns) hCorr\_blk219 hRaw\_blk219 50 50  $t_{\text{tw corr}} \, \text{lns} \, J$ Entries Entries 205 0.1314 Mean x Mean x 0.1314 40 Mean y Mean y 2.938 2.801 Std Dev x 0.03748 Std Dev x 0.03748 30 30 Std Dev y 12.59 Std Dev y 12.63 20 1.4 20 1.4 1.2 1.2 10 10 -10 0.8 0.8 -10 0.6 -20 0.6 -20-30 0.4 -300.4 0.2 0.2 -40-400.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 0.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 E [GeV] E [GeV]

HCAL block 220: E vs hcalt (ns) HCAL block 220: E vs hcalt tw corr (ns) hCorr\_blk220 hRaw\_blk220 50 50 t<sub>tw corr</sub> [ns] Entries 259 Entries 259 0.1206 Mean x Mean x 0.1201 40 Mean y 1.952 Mean y 1.908 Std Dev x 0.0389 Std Dev x 0.03937 30 30 Std Dev y 12.11 Std Dev y 12.59 20 1.4 20 1.4 10 1.2 10 1.2 0.8 -10 0.8 -100.6 -20 0.6 -20-30 0.4 -300.4 0.2 0.2 -40-400.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 0.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 E [GeV] E [GeV]

HCAL block 221: E vs hcalt (ns) HCAL block 221: E vs hcalt tw corr (ns) hCorr\_blk221 hRaw\_blk221 50 tw corr [ns] 50 Entries 285 Entries 285 0.1228 Mean x Mean x 0.1231 40 Mean y 1.818 Mean y -1.736Std Dev x 0.0432 Std Dev x 0.04312 30 30 Std Dev y 14.12 Std Dev y 13.57 20 20 1.4 1.2 10 10 1.5 -10-100.8 0.6 -20 -20-30 -300.4 0.5 0.2 -40-400.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 0.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 E [GeV] E [GeV]

HCAL block 222: E vs hcalt (ns) HCAL block 222: E vs hcalt tw corr (ns) hCorr\_blk222 hRaw\_blk222 50 50 tw corr [ns] 310 Entries 310 Entries 0.11 0.11 Mean x Mean x 40 Mean y -0.6114 Mean y -1.768Std Dev x 0.04165 Std Dev x 0.04165 30 30 Std Dev y Std Dev y 13.6 13.6 20 20 1.4 1.4 1.2 10 1.2 10 0.8 -10-100.8 -20 0.6 0.6 -20-30 0.4 -300.4 0.2 0.2 -40-400.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 0.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 E [GeV] E [GeV]

HCAL block 223: E vs hcalt (ns) HCAL block 223: E vs hcalt tw corr (ns) hCorr\_blk223 hRaw\_blk223 50 50 t<sub>tw corr</sub> [ns] Entries Entries 388 0.1267 Mean x Mean x 0.1263 40 Mean y 3.601 Mean y 3.017 Std Dev x 0.04313 Std Dev x 0.04298 30 30 Std Dev y 16.62 Std Dev y 16.29 20 1.4 20 1.4 1.2 1.2 10 10 -10 0.8 0.8 -100.6 -20 0.6 -20-30 0.4 -300.4 0.2 0.2 -40 -400.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 0.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 E [GeV] E [GeV]

HCAL block 224: E vs hcalt (ns) HCAL block 224: E vs hcalt tw corr (ns) hCorr\_blk224 hRaw\_blk224 50 50 tw corr [ns] Entries 313 Entries 313 Mean x 0.1292 0.1288 Mean x 40 Mean y 1.769 Mean y -0.3411 Std Dev x 0.0407 Std Dev x 0.041 30 30 Std Dev y 15.83 Std Dev y 16.04 20 20 10 10 1.2 1.5 -10 0.8 -100.6 -20-20-30 -300.4 0.5 0.2 -40-400.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 0.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 E [GeV] E [GeV]

HCAL block 225: E vs hcalt (ns) HCAL block 225: E vs hcalt tw corr (ns) hCorr\_blk225 hRaw\_blk225 50 50 tw corr [ns] t [ns] Entries Entries 258 0.1131 Mean x Mean x 0.1131 40 Mean y Mean y 2.828 2.319 Std Dev x 0.04149 Std Dev x 0.04149 30 30 Std Dev y Std Dev y 17.06 20 1.4 20 1.2 10 1.2 10 0.8 -10 0.8 -10 0.6 -200.6 -20-30 0.4 -300.4 0.2 0.2 -40-400.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 0.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 E [GeV] E [GeV]

HCAL block 226: E vs hcalt (ns) HCAL block 226: E vs hcalt tw corr (ns) hCorr\_blk226 hRaw\_blk226 50 50 tw corr [ns] t [ns] Entries 331 Entries 331 0.1238 Mean x Mean x 0.1238 40 Mean y 2.484 Mean y 2.08 Std Dev x 0.04585 Std Dev x 0.04585 30 30 Std Dev y 19.09 Std Dev y 19.03 20 0.7 20 0.7 0.6 0.6 10 10 0.5 0.5 -10 0.4 0.4 -10-20 0.3 -200.3 -30 0.2 -300.2 0.1 0.1 -40 -400.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 0.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 E [GeV] E [GeV]

HCAL block 227: E vs hcalt (ns) HCAL block 227: E vs hcalt tw corr (ns) hCorr\_blk227 hRaw\_blk227 50 50 t<sub>tw corr</sub> [ns] Entries Entries 256 0.1153 Mean x Mean x 0.116 40 Mean y 0.2873 Mean y 0.1435 Std Dev x 0.04488 Std Dev x 0.04434 30 30 Std Dev y 18.79 Std Dev y 18.61 20 1.4 20 1.4 1.2 1.2 10 10 -10 0.8 -100.8 -20 0.6 0.6 -20-30 0.4 -300.4 0.2 0.2 -40-400.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 0.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 E [GeV] E [GeV]

HCAL block 228: E vs hcalt (ns) HCAL block 228: E vs hcalt tw corr (ns) hCorr\_blk228 hRaw\_blk228 50 50 tw corr [ns] t [ns] Entries 239 Entries 239 0.1193 Mean x Mean x 0.1183 40 Mean y Mean y 3.557 3.525 Std Dev x 0.04841 Std Dev x 0.04906 30 30 Std Dev y 17.44 Std Dev y 17.83 0.7 20 0.7 20 0.6 0.6 10 10 0.5 0.5 -10 0.4 -100.4 -200.3 -200.3 -30 0.2 -300.2 0.1 0.1 -40-400.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 0.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 E [GeV] E [GeV]

HCAL block 229: E vs hcalt (ns) HCAL block 229: E vs hcalt tw corr (ns) hCorr\_blk229 hRaw\_blk229 50 50 t<sub>tw corr</sub> [ns] Entries 100 Entries 100 0.08931 Mean x Mean x 0.08913 40 Mean y 3.086 Mean y 2.677 Std Dev x 0.03436 Std Dev x 0.03419 30 30 Std Dev y Std Dev y 11.41 12.36 20 1.4 20 1.4 10 1.2 10 1.2 -10 0.8 0.8 -100.6 -200.6 -20-30 0.4 -300.4 0.2 0.2 -40-400.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 0.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 E [GeV] E [GeV]

HCAL block 230: E vs hcalt (ns) HCAL block 230: E vs hcalt tw corr (ns) hCorr\_blk230 hRaw\_blk230 50 50 t<sub>tw corr</sub> [ns] Entries Entries 151 0.1257 Mean x Mean x 0.1257 40 Mean y Mean y 3.41 3.178 Std Dev x 0.03677 Std Dev x 0.03677 30 30 Std Dev y 17.16 Std Dev y 17.17 20 20 1.4 1.4 1.2 10 1.2 10 -10 0.8 0.8 -10 0.6 -200.6 -20-30 0.4 -300.4 0.2 0.2 -40-400.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 0.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 E [GeV] E [GeV]

HCAL block 231: E vs hcalt (ns) HCAL block 231: E vs hcalt tw corr (ns) hCorr\_blk231 hRaw\_blk231 50 50  $t_{\text{tw corr}} \, \text{lns} \, J$ Entries Entries 336 0.1367 Mean x Mean x 0.1367 40 Mean y Mean y 3.293 3.221 Std Dev x 0.03794 Std Dev x 0.03794 30 30 Std Dev y Std Dev y 14.21 14.26 20 1.4 20 1.4 1.2 10 1.2 10 -10 0.8 0.8 -10 -200.6 -200.6 -30 0.4 -300.4 0.2 0.2 -40-400.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 0.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 E [GeV] E [GeV]

HCAL block 232: E vs hcalt (ns) HCAL block 232: E vs hcalt tw corr (ns) hCorr\_blk232 hRaw\_blk232 50 50  $t_{\text{tw corr}} \, \text{lns} \, J$ Entries Entries 265 0.1228 Mean x Mean x 0.1233 40 Mean y 0.576 0.6111 Std Dev x 0.04184 Std Dev x 0.04154 30 30 Std Dev y Std Dev y 15.86 20 1.4 20 1.4 1.2 10 1.2 10 -10 0.8 0.8 -10 0.6 -20 0.6 -20-30 0.4 -300.4 0.2 0.2 -40-400.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 0.1 0.12 0.14 0.16 0.18 0.2 0.02 0.04 0.06 0.08 E [GeV] E [GeV]

HCAL block 233: E vs hcalt (ns) HCAL block 233: E vs hcalt tw corr (ns) hCorr\_blk233 hRaw\_blk233 50 50 tw corr [ns] Entries Entries 302 302 0.1198 0.1198 Mean x Mean x 40 Mean y Mean y 1.747 1.309 Std Dev x 0.0442 Std Dev x 0.0442 30 30 Std Dev y Std Dev y 12.92 12.8 20 1.4 20 1.4 10 1.2 1.2 10 -10 0.8 0.8 -100.6 -200.6 -20-30 0.4 -300.4 0.2 0.2 -40-400.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 0.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 E [GeV] E [GeV]

HCAL block 234: E vs hcalt (ns) HCAL block 234: E vs hcalt tw corr (ns) hCorr\_blk234 hRaw\_blk234 50 50 tw corr [ns] Entries Entries Mean x 0.06826 Mean x 0.06826 40 Mean y 0.7165 Mean y -1.14Std Dev x 0.03499 Std Dev x 0.03499 30 30 Std Dev y Std Dev y 11.93 11.88 20 0.7 20 0.7 0.6 10 0.6 10 0.5 0.5 0.4 0.4 -10-10-200.3 -200.3 -30 0.2 -300.2 0.1 0.1 -40-400.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 0.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 E [GeV] E [GeV]

HCAL block 235: E vs hcalt (ns) HCAL block 235: E vs hcalt tw corr (ns) hCorr\_blk235 hRaw\_blk235 50 50 tw corr [ns] Entries Entries 499 0.1235 Mean x Mean x 0.1236 40 Mean y 2.94 Mean y 2.537 Std Dev x 0.04564 Std Dev x 0.04547 30 30 Std Dev y 17.85 Std Dev y 17.67 20 1.4 20 1.2 1.2 10 10 -100.8 0.8 -10-20 0.6 0.6 -20-30 0.4 -300.4 0.2 0.2 -40-400.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 0.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 E [GeV] E [GeV]

HCAL block 236: E vs hcalt (ns) HCAL block 236: E vs hcalt tw corr (ns) hCorr\_blk236 hRaw\_blk236 50 50 tw corr [ns] Entries 234 Entries 234 0.1175 Mean x 0.117 Mean x 40 Mean y Mean y 1.651 1.863 Std Dev x 0.0443 Std Dev x 0.0442 30 30 Std Dev y 17.57 Std Dev y 18.5 20 1.4 20 1.2 1.2 10 10 -10 0.8 -100.8 0.6 -200.6 -20-30 0.4 -300.4 0.2 0.2 -40 -400.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 0.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 E [GeV] E [GeV]

HCAL block 237: E vs hcalt (ns) HCAL block 237: E vs hcalt tw corr (ns) hCorr\_blk237 hRaw\_blk237 50 50 t<sub>tw corr</sub> [ns] Entries Entries 324 0.1283 Mean x Mean x 0.1283 40 Mean y 3.722 Mean y 3.429 Std Dev x 0.04346 Std Dev x 0.04346 30 30 Std Dev y 17.77 Std Dev y 17.95 20 1.4 20 1.4 10 1.2 10 1.2 -10 0.8 0.8 -100.6 -200.6 -20-30 0.4 -300.4 0.2 0.2 -40 -400.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 0.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 E [GeV] E [GeV]

HCAL block 238: E vs hcalt (ns) HCAL block 238: E vs hcalt tw corr (ns) hCorr\_blk238 hRaw\_blk238 50 50 t<sub>tw corr</sub> [ns] Entries Entries 282 0.126 Mean x Mean x 0.126 40 Mean y Mean y 2.763 2.494 Std Dev x 0.04047 Std Dev x 0.04047 30 30 Std Dev y 16.86 Std Dev y 16.83 20 20 1.4 1.4 1.2 10 1.2 10 -10 0.8 0.8 -100.6 0.6 -20 -20-30 0.4 -300.4 0.2 0.2 -40 -400.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 0.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 E [GeV] E [GeV]

HCAL block 239: E vs hcalt (ns) HCAL block 239: E vs hcalt tw corr (ns) hCorr\_blk239 hRaw\_blk239 50 50 tw corr [ns] Entries 135 Entries 135 0.1102 Mean x Mean x 0.1094 40 Mean y 3.422 Mean y 3.269 Std Dev x 0.04058 Std Dev x 0.04112 30 30 Std Dev y 16.92 Std Dev y 17.37 20 1.4 20 1.4 10 1.2 10 1.2 -10 0.8 -10 0.8 0.6 -200.6 -20-30 0.4 -300.4 0.2 0.2 -40-400.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 0.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 E [GeV] E [GeV]

HCAL block 240: E vs hcalt (ns) HCAL block 240: E vs hcalt tw corr (ns) hCorr\_blk240 hRaw\_blk240 50 50 t<sub>tw corr</sub> [ns] Entries Entries 357 0.1147 Mean x Mean x 0.1147 40 Mean y Mean y 1.32 0.7596 Std Dev x 0.04665 Std Dev x 0.04665 30 30 Std Dev y 25.63 Std Dev y 25.75 20 0.7 0.7 20 0.6 -0.6 10 10 0.5 0.5 -10 0.4 -100.4 0.3 -200.3 -20-30 0.2 -300.2 0.1 0.1 -40-400.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 0.1 0.12 0.14 0.16 0.18 0.2 0.02 0.04 0.06 0.08 E [GeV] E [GeV]

HCAL block 241: E vs hcalt (ns) HCAL block 241: E vs hcalt tw corr (ns) hCorr\_blk241 hRaw\_blk241 50 50 t<sub>tw corr</sub> [ns] Entries 124 Entries 124 Mean x 0.1179 Mean x 0.1179 40 Mean y -0.733Mean y -1.145Std Dev x 0.04184 Std Dev x 0.04184 30 30 Std Dev y 17.65 Std Dev y 17.68 0.7 20 0.7 20 0.6 0.6 10 10 0.5 0.5 0.4 0.4 -10 -10 -20 0.3 -200.3 -30 0.2 -300.2 0.1 0.1 -40-400.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 0.1 0.12 0.14 0.16 0.18 0.2 0.02 0.04 0.06 0.08 E [GeV] E [GeV]

HCAL block 242: E vs hcalt (ns) HCAL block 242: E vs hcalt tw corr (ns) hCorr\_blk242 hRaw\_blk242 50 t<sub>tw corr</sub> [ns] 50 Entries 221 Entries 221 0.1302 Mean x Mean x 0.1292 40 Mean y 0.5858 Mean y 0.7465 Std Dev x 0.04341 Std Dev x 0.04221 30 30 Std Dev y 13.45 Std Dev y 14.09 0.7 20 0.7 20 0.6 0.6 10 10 0.5 0.5 -100.4 0.4 -10-20 0.3 0.3 -20-30 0.2 -300.2 0.1 0.1 -40-400.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 0.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 E [GeV] E [GeV]

HCAL block 243: E vs hcalt (ns) HCAL block 243: E vs hcalt tw corr (ns) hCorr\_blk243 hRaw\_blk243 50 50  $t_{\text{tw corr}} \, \text{lns} \, J$ Entries 134 Entries 134 Mean x 0.1179 Mean x 0.1179 40 Mean y Mean y -9.993-10.57Std Dev x 0.04985 Std Dev x 0.04985 30 30 Std Dev y 26.71 Std Dev y 26.28 0.7 20 0.7 20 0.6 10 0.6 10 0.5 0.5 0.4 0.4 -10 -10-200.3 -200.3 -30 0.2 -300.2 0.1 0.1 -40-400.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 0.1 0.12 0.14 0.16 0.18 0.2 0.02 0.04 0.06 0.08 E [GeV] E [GeV]

HCAL block 244: E vs hcalt (ns) HCAL block 244: E vs hcalt tw corr (ns) hCorr\_blk244 hRaw\_blk244 50 50 t<sub>tw corr</sub> [ns] Entries 100 Entries 100 Mean x 0.1149 Mean x 0.1149 40 Mean y 0.8675 Mean y 0.4312 Std Dev x 0.03901 Std Dev x 0.03901 30 30 Std Dev y 9.167 Std Dev y 9.049 20 1.4 20 1.4 10 1.2 10 1.2 -10 0.8 0.8 -10 0.6 -200.6 -20-30 0.4 -300.4 0.2 0.2 -40-400.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 0.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 E [GeV] E [GeV]

HCAL block 245: E vs hcalt (ns) HCAL block 245: E vs hcalt tw corr (ns) hCorr\_blk245 hRaw\_blk245 50 50  $t_{\text{tw corr}} \, \text{lns} \, J$ Entries 222 Entries 222 0.1237 Mean x Mean x 0.1241 40 Mean y -5.927Mean y -5.872Std Dev x 0.03907 Std Dev x 0.03915 30 30 Std Dev y 12.22 Std Dev y 20 1.4 20 1.4 1.2 10 1.2 10 -10 0.8 0.8 -10-200.6 -200.6 -30 0.4 -300.4 0.2 0.2 -40-400.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 0.1 0.12 0.14 0.16 0.18 0.2 0.02 0.04 0.06 0.08 E [GeV] E [GeV]

HCAL block 246: E vs hcalt (ns) HCAL block 246: E vs hcalt tw corr (ns) hCorr\_blk246 hRaw\_blk246 50 50 t<sub>tw corr</sub> [ns] Entries Entries 0.1079 Mean x 0.108 Mean x 40 Mean y 0.5928 Mean y 0.8796 Std Dev x 0.0436 Std Dev x 0.04373 30 30 Std Dev y 13.31 Std Dev y 12.68 20 20 1.4 10 1.2 10 1.5 -10 0.8 -10 -200.6 -20-30 0.4 -300.5 0.2 -40-400.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 0.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 E [GeV] E [GeV]

HCAL block 247: E vs hcalt (ns) HCAL block 247: E vs hcalt tw corr (ns) hCorr\_blk247 hRaw\_blk247 50 50 t<sub>tw corr</sub> [ns] Entries 190 Entries 190 Mean x 0.119 Mean x 0.119 40 Mean y 3.762 Mean y 3.243 Std Dev x 0.04584 Std Dev x 0.04584 30 30 Std Dev y Std Dev y 15.6 15.68 20 1.4 20 1.4 10 1.2 10 1.2 -10 0.8 0.8 -100.6 -200.6 -20-300.4 -300.4 0.2 0.2 -40-400.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 0.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 E [GeV] E [GeV]

HCAL block 248: E vs hcalt (ns) HCAL block 248: E vs hcalt tw corr (ns) hCorr\_blk248 hRaw\_blk248 50 50 t<sub>tw corr</sub> [ns] Entries 278 Entries 278 0.12 Mean x Mean x 0.12 40 Mean y 1.02 Mean y 0.529 Std Dev x 0.04661 Std Dev x 0.04661 30 30 Std Dev y 18.67 Std Dev y 18.61 20 1.4 20 1.4 1.2 10 1.2 10 -100.8 -100.8 0.6 -200.6 -20-30 0.4 -300.4 0.2 0.2 -40-400.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 0.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 E [GeV] E [GeV]

HCAL block 249: E vs hcalt (ns) HCAL block 249: E vs hcalt tw corr (ns) hCorr\_blk249 hRaw\_blk249 50 50 t<sub>tw corr</sub> [ns] Entries Entries 283 0.1238 Mean x Mean x 0.1238 40 Mean y -0.2633-0.5788Mean y Std Dev x 0.04263 Std Dev x 0.04263 30 30 Std Dev y 18.91 Std Dev y 18.86 20 20 1.4 1.4 1.2 1.2 10 10 -10 0.8 0.8 -100.6 0.6 -20 -20-30 0.4 -300.4 0.2 0.2 -40-400.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 0.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 E [GeV] E [GeV]

HCAL block 250: E vs hcalt (ns) HCAL block 250: E vs hcalt tw corr (ns) hCorr\_blk250 hRaw\_blk250 50 50 tw corr [ns] Entries 262 Entries 0.1199 Mean x 0.1192 Mean x 40 Mean y 2.232 Mean y 2.086 Std Dev x 0.04263 Std Dev x 0.0431 30 30 Std Dev y 17.14 Std Dev y 16.4 20 20 1.4 1.4 1.2 1.2 10 10 -10 0.8 -100.8 -20 0.6 -200.6 -30 0.4 -300.4 0.2 0.2 -40 -400.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 0.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 E [GeV] E [GeV]

HCAL block 251: E vs hcalt (ns) HCAL block 251: E vs hcalt tw corr (ns) hCorr\_blk251 hRaw\_blk251 50 50 t<sub>tw corr</sub> [ns] Entries 210 Entries 210 0.116 Mean x 0.1163 Mean x 40 Mean y Mean y 3.524 2.969 Std Dev x 0.0427 Std Dev x 0.04221 30 30 Std Dev y 17.44 Std Dev y 16.33 20 1.4 20 1.4 1.2 10 10 1.2 -100.8 0.8 -100.6 -200.6 -20-30 0.4 -300.4 0.2 0.2 -40-400.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 0.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 E [GeV] E [GeV]

HCAL block 252: E vs hcalt (ns) HCAL block 252: E vs hcalt tw corr (ns) hCorr\_blk252 hRaw\_blk252 50 50 tw corr [ns] t [ns] Entries 192 Entries 192 0.1131 0.1131 Mean x Mean x 40 Mean y Mean y -1.658-2.437Std Dev x 0.05217 Std Dev x 0.05217 30 30 Std Dev y 23.11 Std Dev y 22.77 20 0.7 20 1.4 0.6 10 1.2 10 0.5 -10 0.8 -100.4 0.6 0.3 -20-20-30 0.4 -300.2 0.1 0.2 -40-400.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 0.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2

E [GeV]

E [GeV]

HCAL block 253: E vs hcalt (ns) HCAL block 253: E vs hcalt tw corr (ns) hCorr\_blk253 hRaw\_blk253 50 50 t<sub>tw corr</sub> [ns] Entries 171 Entries 171 0.1223 Mean x Mean x 0.121 40 Mean y Mean y 0.9909 1.355 Std Dev x 0.04224 Std Dev x 0.04322 30 30 Std Dev y 17.32 Std Dev y 18.29 0.7 20 0.7 20 0.6 0.6 10 10 0.5 0.5 0.4 0.4 -10 -100.3 -200.3 -20-30 0.2 -300.2 0.1 0.1 -40-400.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 0.1 0.12 0.14 0.16 0.18 0.2 0.02 0.04 0.06 0.08 E [GeV] E [GeV]

HCAL block 254: E vs hcalt (ns) HCAL block 254: E vs hcalt tw corr (ns) hCorr\_blk254 hRaw\_blk254 50 50  $t_{\text{tw corr}} \, \text{lns} \, J$ Entries Entries Mean x 0.09554 Mean x 0.09554 40 Mean y 4.796 Mean y 3.902 Std Dev x 0.03866 Std Dev x 0.03866 30 30 Std Dev y 13.84 Std Dev y 14.01 20 0.7 20 0.7 0.6 0.6 10 10 0.5 0.5 0.4 0.4 -10 -100.3 -200.3 -20-30 0.2 -300.2 0.1 0.1 -40-400.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 0.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 E [GeV] E [GeV]

HCAL block 255: E vs hcalt (ns) HCAL block 255: E vs hcalt tw corr (ns) hCorr\_blk255 hRaw\_blk255 50 50 tw corr [ns] Entries Entries 202 Mean x 0.1293 Mean x 0.1293 40 Mean y Mean y 4.497 4.211 Std Dev x 0.04475 Std Dev x 0.04475 30 30 Std Dev y 15.28 Std Dev y 15.1 0.7 20 0.7 20 0.6 0.6 10 10 0.5 0.5 0.4 0.4 -10 -10 0.3 -20 0.3 -20-30 0.2 -300.2 0.1 0.1 -40-400.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 0.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 E [GeV] E [GeV]

HCAL block 256: E vs hcalt (ns) HCAL block 256: E vs hcalt tw corr (ns) hCorr\_blk256 hRaw\_blk256 50 50 t<sub>tw corr</sub> [ns] Entries 163 Entries 163 0.1295 Mean x Mean x 0.1289 40 Mean y 0.7829 Mean y 1.033 Std Dev x 0.04351 Std Dev x 0.04362 30 30 Std Dev y Std Dev y 13.98 20 1.4 20 1.4 1.2 10 10 1.2 -10 0.8 0.8 -10 0.6 -200.6 -20-30 0.4 -300.4 0.2 0.2 -40-400.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 0.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 E [GeV] E [GeV]

HCAL block 257: E vs hcalt (ns) HCAL block 257: E vs hcalt tw corr (ns) hCorr\_blk257 hRaw\_blk257 50 50 t<sub>tw corr</sub> [ns] Entries Entries 344 0.1236 Mean x Mean x 0.1236 40 Mean y -0.03729 Mean y -0.4019Std Dev x 0.04355 Std Dev x 0.04355 30 30 Std Dev y 17.79 Std Dev y 17.63 20 1.4 20 1.4 10 1.2 10 1.2 -10 0.8 0.8 -10 0.6 0.6 -20 -20-30 0.4 -300.4 0.2 0.2 -40-400.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 0.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 E [GeV] E [GeV]

HCAL block 258: E vs hcalt (ns) HCAL block 258: E vs hcalt tw corr (ns) hCorr\_blk258 hRaw\_blk258 50 t<sub>tw corr</sub> [ns] 50 Entries 263 Entries 263 0.1221 Mean x Mean x 0.1221 40 Mean y 2.758 Mean y 2.386 Std Dev x 0.04414 Std Dev x 0.04414 30 30 Std Dev y Std Dev y 19.52 19.49 20 1.4 20 1.4 1.2 10 1.2 10 -10 0.8 0.8 -10 0.6 -20 0.6 -20-30 0.4 -300.4 0.2 0.2 -40 -400.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 0.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 E [GeV] E [GeV]

HCAL block 259: E vs hcalt (ns) HCAL block 259: E vs hcalt tw corr (ns) hCorr\_blk259 hRaw\_blk259 50 50 t<sub>tw corr</sub> [ns] t [ns] Entries 252 Entries 252 0.1309 Mean x Mean x 0.1309 40 Mean y 3.538 Mean y 3.32 Std Dev x 0.04184 Std Dev x 0.04184 30 30 Std Dev y 13.61 Std Dev y 13.51 0.7 20 1.4 20 0.6 1.2 10 10 0.5 -10 0.8 0.4 -10 0.3 -200.6 -20-30 0.4 -300.2 0.2 0.1 -40-400.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 0.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 E [GeV] E [GeV]

HCAL block 260: E vs hcalt (ns) HCAL block 260: E vs hcalt tw corr (ns) hCorr\_blk260 hRaw\_blk260 50 50 tw corr [ns] Entries 224 Entries 224 0.123 0.1227 Mean x Mean x 40 Mean y 2.867 Mean y 2.195 Std Dev x 0.04332 Std Dev x 0.04334 30 30 Std Dev y 17.26 Std Dev y 16.88 20 1.4 20 1.4 1.2 10 1.2 10 -10 0.8 0.8 -100.6 -20 0.6 -20-30 0.4 -30 0.4 0.2 0.2 -40 -400.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 0.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 E [GeV] E [GeV]

HCAL block 261: E vs hcalt (ns) HCAL block 261: E vs hcalt tw corr (ns) hCorr\_blk261 hRaw\_blk261 50 50 t<sub>tw corr</sub> [ns] Entries 239 Entries 239 0.1177 Mean x Mean x 0.1184 40 Mean y Mean y 4.122 4.2 Std Dev x 0.04259 Std Dev x 0.04191 30 30 Std Dev y 15.93 Std Dev y 15.32 20 1.4 20 1.2 10 1.2 10 -10 0.8 0.8 -100.6 -20 0.6 -20-30 0.4 -300.4 0.2 0.2 -40-400.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 0.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 E [GeV] E [GeV]

HCAL block 262: E vs hcalt (ns) HCAL block 262: E vs hcalt tw corr (ns) hCorr\_blk262 hRaw\_blk262 50 50 tw corr [ns] Entries Entries 346 0.1218 Mean x Mean x 0.1218 40 Mean y 3.22 Mean y 2.828 Std Dev x 0.04369 Std Dev x 0.04369 30 30 Std Dev y 19.29 Std Dev y 19.28 20 20 1.4 1.4 1.2 1.2 10 10 -10 0.8 -100.8 0.6 -20 0.6 -20-30 0.4 -300.4 0.2 0.2 -40 -400.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 0.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 E [GeV] E [GeV]

HCAL block 263: E vs hcalt (ns) HCAL block 263: E vs hcalt tw corr (ns) hCorr\_blk263 hRaw\_blk263 50 50 t<sub>tw corr</sub> [ns] Entries Entries 188 0.1134 Mean x Mean x 0.1137 40 Mean y 2.35 Mean y 2.229 Std Dev x 0.04356 Std Dev x 0.04359 30 30 Std Dev y 15.15 Std Dev y 14.33 20 20 1.4 1.4 1.2 10 1.2 10 -10 0.8 0.8 -100.6 -20 0.6 -20-30 0.4 -300.4 0.2 0.2 -40 -400.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 0.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 E [GeV] E [GeV]

HCAL block 264: E vs hcalt (ns) HCAL block 264: E vs hcalt tw corr (ns) hCorr\_blk264 hRaw\_blk264 50 50 t<sub>tw corr</sub> [ns] Entries Entries 136 Mean x 0.1136 Mean x 0.1136 40 Mean y -1.968Mean y -2.578Std Dev x 0.04534 Std Dev x 0.04534 30 30 Std Dev y Std Dev y 14.85 14.7 0.7 20 0.7 20 0.6 0.6 10 10 0.5 0.5 -100.4 -100.4 0.3 -200.3 -20-30 0.2 -300.2 0.1 0.1 -40-400.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 0.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 E [GeV] E [GeV]

HCAL block 265: E vs hcalt (ns) HCAL block 265: E vs hcalt tw corr (ns) hCorr\_blk265 hRaw\_blk265 50 50  $t_{\text{tw corr}} \, \text{lns} \, J$ Entries Entries Mean x 0.1417 Mean x 0.1417 40 4.721 Mean y Mean y 4.656 Std Dev x 0.04234 Std Dev x 0.04234 30 30 Std Dev y Std Dev y 15.07 15.24 0.7 20 0.7 20 -0.6 0.6 10 10 0.5 0.5 0.4 0.4 -10 -100.3 -200.3 -20-30 0.2 -300.2 0.1 0.1 -40-400.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 0.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 E [GeV] E [GeV]

HCAL block 266: E vs hcalt (ns) HCAL block 266: E vs hcalt tw corr (ns) hCorr\_blk266 hRaw\_blk266 50 50 t<sub>tw corr</sub> [ns] Entries Entries 0.1227 Mean x Mean x 0.1227 40 Mean y Mean y 4.336 3.899 Std Dev x 0.04631 Std Dev x 0.04631 30 30 Std Dev y 16.72 Std Dev y 16.75 20 0.7 20 0.7 0.6 0.6 10 10 0.5 0.5 -100.4 0.4 -100.3 -200.3 -20-30 0.2 -300.2 0.1 0.1 -40-400.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 0.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 E [GeV] E [GeV]

HCAL block 267: E vs hcalt (ns) HCAL block 267: E vs hcalt tw corr (ns) hCorr\_blk267 hRaw\_blk267 50 50  $t_{\text{tw corr}} \, \text{lns} \, J$ Entries Entries 0.1216 Mean x Mean x 0.1216 40 Mean y 2.468 Mean y 2.236 Std Dev x 0.03111 Std Dev x 0.03111 30 30 Std Dev y Std Dev y 14.08 14.1 0.7 20 0.7 20 0.6 0.6 10 10 0.5 0.5 -10 0.4 0.4 -10 0.3 -20 0.3 -20-30 0.2 -300.2 0.1 0.1 -40-400.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 0.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 E [GeV] E [GeV]

HCAL block 268: E vs hcalt (ns) HCAL block 268: E vs hcalt tw corr (ns) hCorr\_blk268 hRaw\_blk268 50 50 t<sub>tw corr</sub> [ns] Entries Entries 123 123 0.1321 0.1321 Mean x Mean x 40 Mean y 2.95 Mean y 2.771 Std Dev x 0.04 Std Dev x 0.04 30 30 Std Dev y 11.85 Std Dev y 11.77 20 1.4 20 1.4 1.2 10 10 1.2 -100.8 0.8 -10-200.6 -200.6 -30 0.4 -300.4 0.2 0.2 -40-400.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 0.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 E [GeV] E [GeV]

HCAL block 269: E vs hcalt (ns) HCAL block 269: E vs hcalt tw corr (ns) hCorr\_blk269 hRaw\_blk269 50 50 t<sub>tw corr</sub> [ns] Entries Entries 149 0.1326 Mean x Mean x 0.1326 40 Mean y 1.676 Mean y 1.494 Std Dev x 0.04146 Std Dev x 0.04146 30 30 Std Dev y 12.54 Std Dev y 12.52 20 1.4 20 1.4 10 1.2 10 1.2 -10 0.8 0.8 -100.6 -20 0.6 -20-30 0.4 -300.4 0.2 0.2 -40-400.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 0.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 E [GeV] E [GeV]

HCAL block 270: E vs hcalt (ns) HCAL block 270: E vs hcalt tw corr (ns) hCorr\_blk270 hRaw\_blk270 50 50 tw corr [ns] Entries Entries 76 0.1014 Mean x 0.1014 Mean x 40 Mean y -1.514 Mean y -2.21Std Dev x 0.0374 Std Dev x 0.0374 30 30 Std Dev y 17.01 Std Dev y 16.98 0.7 20 0.7 20 0.6 10 0.6 10 0.5 0.5 -100.4 0.4 -100.3 -200.3 -20-30 0.2 -300.2 0.1 0.1 -40-400.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 0.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 E [GeV] E [GeV]

HCAL block 271: E vs hcalt (ns) HCAL block 271: E vs hcalt tw corr (ns) hCorr\_blk271 hRaw\_blk271 50 50 tw corr [ns] t [ns] Entries 147 Entries 147 0.1237 Mean x Mean x 0.1237 40 Mean y 3.381 Mean y 3.044 Std Dev x 0.04138 Std Dev x 0.04138 30 30 Std Dev y 13.51 Std Dev y 13.43 0.7 20 0.7 20 0.6 0.6 10 10 0.5 0.5 0.4 0.4 -10 -10 0.3 -200.3 -20-30 0.2 -300.2 0.1 0.1 -40-400.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 0.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 E [GeV] E [GeV]

HCAL block 272: E vs hcalt (ns) HCAL block 272: E vs hcalt tw corr (ns) hCorr\_blk272 hRaw\_blk272 50 50 t<sub>tw corr</sub> [ns] Entries 155 Entries 155 Mean x 0.1204 Mean x 0.1204 40 Mean y 0.9802 Mean y 0.5666 Std Dev x 0.04373 Std Dev x 0.04373 30 30 Std Dev y Std Dev y 15.87 15.74 20 1.4 20 10 1.2 10 1.2 -10 0.8 0.8 -10 0.6 -200.6 -20-30 0.4 -300.4 0.2 0.2 -40-400.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 0.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 E [GeV] E [GeV]

HCAL block 273: E vs hcalt (ns) HCAL block 273: E vs hcalt tw corr (ns) hCorr\_blk273 hRaw\_blk273 50 50 tw corr [ns] Entries Entries Mean x 0.05298 Mean x 0.05298 40 Mean y 7.11 Mean y 4.609 Std Dev x 0.02204 Std Dev x 0.02204 30 30 Std Dev y 19.34 Std Dev y 19.19 20 0.7 20 1.4 10 0.6 10 1.2 0.5 0.4 0.8 -10-10-200.3 -200.6 -30 0.2 -300.4 0.2 0.1 -40-400.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 0.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 E [GeV] E [GeV]

HCAL block 274: E vs hcalt (ns) HCAL block 274: E vs hcalt tw corr (ns) hCorr\_blk274 hRaw\_blk274 50 50 t<sub>tw corr</sub> [ns] Entries Entries Mean x 0.08697 Mean x 0.08697 40 Mean y -0.3128Mean y -1.368Std Dev x 0.03532 Std Dev x 0.03532 30 30 Std Dev y Std Dev y 13.42 13.35 20 20 1.4 1.4 10 1.2 10 1.2 0.8 0.8 -10-10-200.6 -200.6 -30 0.4 -300.4 0.2 0.2 -40-400.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 0.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 E [GeV] E [GeV]

HCAL block 275: E vs hcalt (ns) HCAL block 275: E vs hcalt tw corr (ns) hCorr\_blk275 hRaw\_blk275 50 50 t<sub>tw corr</sub> [ns] Entries 220 Entries 220 0.1118 Mean x Mean x 0.111 40 Mean y 1.953 Mean y 1.776 Std Dev x 0.0445 Std Dev x 0.04507 30 30 Std Dev y 18.56 Std Dev y 19.23 20 1.4 20 1.4 10 1.2 10 1.2 -10 0.8 0.8 -100.6 -200.6 -20-300.4 -300.4 0.2 0.2 -40-400.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 0.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 E [GeV] E [GeV]

HCAL block 276: E vs hcalt (ns) HCAL block 276: E vs hcalt tw corr (ns) hCorr\_blk276 hRaw\_blk276 50 50 tw corr [ns] Entries Entries 208 0.1238 Mean x Mean x 0.1249 40 Mean y -2.24 Mean y -1.956Std Dev x 0.04393 Std Dev x 0.04324 30 30 Std Dev y 23.38 Std Dev y 22.83 0.7 20 0.7 20 0.6 0.6 10 10 0.5 0.5 -10 0.4 0.4 -100.3 -20 0.3 -20-30 0.2 -300.2 0.1 0.1 -40-400.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 0.1 0.12 0.14 0.16 0.18 0.2 0.02 0.04 0.06 0.08 E [GeV] E [GeV]

HCAL block 277: E vs hcalt (ns) HCAL block 277: E vs hcalt tw corr (ns) hCorr\_blk277 hRaw\_blk277 50 50  $t_{\text{tw corr}} \, \text{lns} \, J$ t [ns] Entries 167 Entries 167 0.1315 Mean x Mean x 0.1315 40 Mean y 6.823 Mean y 6.491 Std Dev x 0.04856 Std Dev x 0.04856 30 30 Std Dev y 22.76 Std Dev y 22.53 0.7 20 0.7 20 0.6 0.6 10 10 0.5 0.5 0.4 0.4 -10 -10-200.3 -200.3 -30 0.2 -300.2 0.1 0.1 -40-400.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 0.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 E [GeV] E [GeV]

HCAL block 278: E vs hcalt (ns) HCAL block 278: E vs hcalt tw corr (ns) hCorr\_blk278 hRaw\_blk278 50 50 t<sub>tw corr</sub> [ns] Entries Entries 161 Mean x 0.1345 Mean x 0.1345 40 Mean y Mean y -0.08926 -0.4175Std Dev x 0.04974 Std Dev x 0.04974 30 30 Std Dev y 21.02 Std Dev y 21.02 20 20 0.7 0.7 0.6 0.6 10 10 0.5 0.5 0.4 -10 0.4 -10-20 0.3 -200.3 -30 0.2 -300.2 0.1 0.1 -40-400.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 0.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 E [GeV] E [GeV]

HCAL block 279: E vs hcalt (ns) HCAL block 279: E vs hcalt tw corr (ns) hCorr\_blk279 hRaw\_blk279 50 50 t<sub>tw corr</sub> [ns] Entries Entries 360 0.112 Mean x Mean x 0.1129 40 Mean y Mean y 0.4849 0.803 Std Dev x 0.04119 Std Dev x 0.04092 30 30 Std Dev y 21.57 Std Dev y 20.94 0.7 20 0.7 20 0.6 0.6 10 10 0.5 0.5 0.4 0.4 -10 -100.3 -20 0.3 -20-30 0.2 -300.2 0.1 0.1 -40-400.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 0.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 E [GeV] E [GeV]

HCAL block 280: E vs hcalt (ns) HCAL block 280: E vs hcalt tw corr (ns) hCorr\_blk280 hRaw\_blk280 50 50 t<sub>tw corr</sub> [ns] Entries 274 Entries 274 0.1416 Mean x Mean x 0.1408 40 Mean y Mean y 5.151 5.827 Std Dev x 0.03949 Std Dev x 0.03965 30 30 Std Dev y 18.86 Std Dev y 19.54 0.7 20 0.7 20 0.6 0.6 10 10 0.5 0.5 0.4 -10 0.4 -100.3 -20 0.3 -20-30 0.2 -300.2 0.1 0.1 -40-400.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 0.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 E [GeV] E [GeV]

HCAL block 281: E vs hcalt (ns) HCAL block 281: E vs hcalt tw corr (ns) hCorr\_blk281 hRaw\_blk281 50 50  $t_{\text{tw corr}} \, \text{lns} \, J$ Entries 227 Entries 227 0.1325 0.134 Mean x Mean x 40 Mean y 0.506 Mean y 0.9939 Std Dev x 0.04436 Std Dev x 0.04284 30 30 Std Dev y 21.46 Std Dev y 20.61 20 1.4 20 1.4 1.2 10 1.2 10 -10 0.8 0.8 -10 0.6 -20 0.6 -20-30 0.4 -300.4 0.2 0.2 -40-400.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 0.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 E [GeV] E [GeV]

HCAL block 282: E vs hcalt (ns) HCAL block 282: E vs hcalt tw corr (ns) hCorr\_blk282 hRaw\_blk282 50 50 tw corr [ns] Entries Entries 295 0.1249 Mean x Mean x 0.1246 40 Mean y Mean y -1.406-0.77Std Dev x 0.04739 Std Dev x 0.04794 30 30 Std Dev y Std Dev y 22.58 22.5 0.7 20 20 1.2 0.6 10 10 0.5 -10 0.8 0.4 -100.3 -200.6 -20-30 0.4 -300.2 0.1 0.2 -40-400.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 0.1 0.12 0.14 0.16 0.18 0.2 0.02 0.04 0.06 0.08 E [GeV] E [GeV]

HCAL block 283: E vs hcalt (ns) HCAL block 283: E vs hcalt tw corr (ns) hCorr\_blk283 hRaw\_blk283 50 50 t<sub>tw corr</sub> [ns] Entries 276 Entries 276 0.1301 Mean x Mean x 0.1301 40 Mean y 3.189 Mean y 2.979 Std Dev x 0.04133 Std Dev x 0.04133 30 30 Std Dev y 18.85 Std Dev y 19.04 0.7 20 0.7 20 0.6 0.6 10 10 0.5 0.5 0.4 0.4 -10 -100.3 -20 0.3 -20-30 0.2 -300.2 0.1 0.1 -40-400.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 0.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 E [GeV] E [GeV]

HCAL block 284: E vs hcalt (ns) HCAL block 284: E vs hcalt tw corr (ns) hCorr\_blk284 hRaw\_blk284 50 50 t<sub>tw corr</sub> [ns] Entries 177 Entries 177 0.1323 Mean x Mean x 0.1329 40 Mean y -5.853Mean y -3.975Std Dev x 0.03877 Std Dev x 0.03908 30 30 Std Dev y 22.72 Std Dev y 22.59 0.7 20 0.7 20 -0.6 0.6 10 10 0.5 0.5 0.4 0.4 -10-100.3 -200.3 -20-30 0.2 -300.2 0.1 0.1 -40-400.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 0.1 0.12 0.14 0.16 0.18 0.2 0.02 0.04 0.06 0.08 E [GeV] E [GeV]

HCAL block 285: E vs hcalt (ns) HCAL block 285: E vs hcalt tw corr (ns) hCorr\_blk285 hRaw\_blk285 50 50  $t_{\text{tw corr}} \, \text{lns} \, J$ Entries Entries 209 Mean x 0.1192 Mean x 0.1192 40 Mean y 2.814 Mean y 2.339 Std Dev x 0.04429 Std Dev x 0.04429 30 30 Std Dev y 15.94 Std Dev y 15.99 20 20 10 1.2 10 1.2 0.8 -10 0.8 -10 0.6 -200.6 -20-30 0.4 -300.4 0.2 0.2 -40-400.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 0.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 E [GeV] E [GeV]

HCAL block 286: E vs hcalt (ns) HCAL block 286: E vs hcalt tw corr (ns) hCorr\_blk286 hRaw\_blk286 50 50 t<sub>tw corr</sub> [ns] Entries 171 Entries 171 0.1077 0.1077 Mean x Mean x 40 Mean y 1.762 Mean y 1.201 Std Dev x 0.03597 Std Dev x 0.03597 30 30 Std Dev y Std Dev y 17.5 17.55 20 20 1.4 1.4 10 1.2 10 1.2 -100.8 -100.8 0.6 -20 0.6 -20-30 0.4 -300.4 0.2 0.2 -40-400.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 0.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 E [GeV] E [GeV]

HCAL block 287: E vs hcalt (ns) HCAL block 287: E vs hcalt tw corr (ns) hCorr\_blk287 hRaw\_blk287 50 50 t<sub>tw corr</sub> [ns] Entries 169 Entries 169 0.1314 Mean x Mean x 0.1314 40 Mean y Mean y 2.61 2.332 Std Dev x 0.04522 Std Dev x 0.04522 30 30 Std Dev y Std Dev y 15.05 15.06 0.7 20 0.7 20 0.6 0.6 10 10 0.5 0.5 -100.4 0.4 -10-20 0.3 -200.3 -30 0.2 -300.2 0.1 0.1 -40-400.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 0.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2 E [GeV] E [GeV]

