Signal in pure DC pixel without shower

Distribution of QDC-reconstructed Events

Distribution of BDT-reconstructed Events

Distribution of BDT-reconstructed Events, after cuts

We define a target pixel as one in which the DC pixel has a shower-free intensity of 150 or more.
Of 392 identified pixels, we have 228 target pixels, which we would hope to identify.
In total, 16 pixels are correctly identified using QDC method. Method Identified 7.0 % of target events.
In total, 141 pixels are correctly identified using BDT method. Method Identified 61.8 % of target events.

Our QDC cut requires QDC > 1.3 . We have 27 events passing this cut.
 Of these, 16 are correctly identified events.
 Successful ID rate after cut is 59.3 % Fraction of target pixels correctly identified is 7.0 %

Our alt QDC cut requires QDC > 1.3 .
 We have 162 events passing this cut. Of these, 0 are correctly identified events.
 Successful ID rate after cut is 0.0 % Fraction of target pixels correctly identified is 0.0 %

Our BDT cut requires Signal Probability > 0.5 .
 We have 149 events passing this cut. Of these, 93 are correctly identified events.
 Successful ID rate after cut is 62.4 % Fraction of target pixels correctly identified is 40.8 %

We check for an event that has Signal Probability > 0.5 and signal > 200 .
We have 103 events passing this cut. Of these, 73 are correctly identified events.
 Successful ID rate after cut is 70.9 % Fraction of target pixels correctly identified is 32.0 %

Distribution of BDT-reconstructed Events, after cuts