Signal in pure DC pixel without shower

Distribution of QDC-reconstructed Events

Distribution of BDT-reconstructed Events

Distribution of BDT-reconstructed Events, after cuts

173 Total Events. We define a DC event as one in which the DC pixel has a shower-free count of 4500 or more. We have 143 DC events.
Of these, 14 are Correctly Identified Events using QDC method. Old successful ID rate of 9.8 %.
Of these, 90 are Correctly Identified Events using BDT method. Successful ID rate of 62.9 %

Our QDC cut requires QDC > 1.3 . We have 5 events passing this cut. Of these, 5 are Correctly Identified Events.
 Successful ID rate after cut is 100.0 % Fraction of DC pixels correctly identified is 3.5 %

Our BDT cut requires Signal Probability > 0.5 . We have 69 events passing this cut. Of these, 51 are Correctly Identified Events.
 Successful ID rate after cut is 73.9 % Fraction of DC pixels correctly identified is 35.7 %

We check for an event that has QDC > 1.3 , or if not,
 require Signal Probability > 0.5 and signal > 300 .
We have 69 events passing this cut. Of these, 51 are Correctly Identified Events.
 Successful ID rate after cut is 73.9 % Fraction of DC pixels correctly identified is 35.7 %