Removing background

- Any DC background should be removed with pedestal subtraction:
  - Without pedestal subtraction, non-removal of background generate completely wrong results.
  - In the past we still had shifted wavefroms in data even with pedestal subtraction.

- Averaging and subtracting the DC background should fix this.

- Might need some more work to deal with noise/bkg/pedestal/unsigned interaction.

```cpp
uint16_t bkg_avg = 0;
// Removing the DC background //Also useful for approximating results without pedestal subtraction
if (sampPeak<16) {
  bkg_avg = (sampleData[26] + sampleData[27] + sampleData[28] + sampleData[29] + sampleData[30] + sampleData[31])/6;
}
else {
  bkg_avg = (sampleData[0] + sampleData[1] + sampleData[2] + sampleData[3] + sampleData[4] + sampleData[5] + sampleData[6] + sampleData[7] )/8;
}
for (i = 0; i < numSamples; i++) {
  sampleData[i] = sampleData[i]-bkg_avg;
}
vPeak = sampleData[sampPeak];
```

Pedestal data loading

- Yamada-san made "1-top-feature-extraction-read-pedestal" branch:
  - Uses non-dynamically assigned variables to load the file data into. This method:
    - Runs out of stack memory.
    - This can be changed easily to load the data into a dynamic int array (using heap memory)
  - Using dynamic int array data can be read but can't pass it through to the TOP feature extraction function without compile error.
- We are also discussing loading data in subevent builders and possibility of reading data at the start of each run.