

Needed tools for NIST Campaign #2

There need to be routine measurements that:

- **Ensure/demonstrate quality mTC data-taking:**
 - Are register configurations/feedbacks being set properly ?
 - Can we tell* ? (meaningful DQM tools ?)
 - **Understanding what is being done ?**
 - **Calibration! (and diagnostics)**

 - **What is the current calibration pulse time resolution?**
 - **Resolution versus sample number ?**
 - **Measured sampling rate?**

Specific DQM Needs

- **As data being accumulated:**
 - **What are best estimates of:**
 - ✓ **Pedestal residual (flag bad windows)**
 - ✓ **Sampling rate**
 - ✓ **Average (normalized) pulse width versus sample number [and across window seam]**
 - ✓ **Window dT**
 - ✓ **Channel hit occupancy**
 - ✓ **Pulse height spectra by channel, by PMT and by event**
 - ✓ **Event “time zero” mean and moment**
 - ✓ **Time offsets between modules and between clock fanout branches**