Calibration parameters & Corrections

Charge & light response and corrections

- t0 offset
- t0 resolution
- · light yield
- timing response
- Recombination
- Drift velocity
- Electron diffusion
- Electron lifetime
- Ionization energy
- E-field
- noise
- gain
- crosstalk
- Electronics transfer function

- ADC linearity (integral & differential)
- wire positions
- wire field response
- APA rotation
- APA displacement
- APA planarity
- CPA rotation
- CPA planarity
- CPA displacement

High level quantities

Systematics

- Energy bias
- Position bias
- Energy resolution
- Position resolution
- •

Efficiencies

- particle ID
- noise removal
- reconstruction
- ...

Particle responses

- Charged hadrons
- neutrons
- low energy muons
- external measurements

Standard Candles

- Michel electrons
- neutral pions
 - external measurements

External Measurements

ICARUS, ArgoNeuT, ArgonTube, DUNE 35-ton prototype, MicroBooNE, LArIAT, ProtoDUNEs, SBND & LAr teststands