

Ideas for Improved Signal Basis

- `fieldgen` code improvements from MJD
 - Single config file
 - Finer, adaptive grid
 - FeNics
 - Li thickness
 - Segment boundaries
 - Impurity profile from capacitance measurement / calculation
- `siggen` improvements
 - Charge cloud size
 - Incorporate cloud size into signal basis
 - Improved irregular grid

Ideas for Improved Signal Basis

- xtalk improvements
 - Dead layers and segment boundaries in GEANT simulation
 - Improved electronics-response parameterization (Ben Shanks)
 - Replace fitting functions with high-performance library routines
 - Fits to coincidence scan data
 - Fits to selected flood-field events (Joa's estimators)
 - Fits to ^{241}Am surface-scan superpulses

Ideas for Improved Signal Decomp

- Extra timing information to constrain t_0
 - External fast detectors or RF signal
 - Ge-Ge coincidences (i.e. global t_0 fitting)
 - Requires event building prior to decomposition; hard!
- Better initial estimate of t_0
 - Especially important for multi-site events in a segment
- AGS with multiple guesses for t_0
- Better interaction-number penalty algorithm
 - position-dependent penalty
 - Tuning of penalty factors crystal-by-crystal or segment-by-segment
- Longer basis and signal time windows
- Better time-interpolation algorithms, and/or higher-frequency basis signals
- Two-segment AGS