

# DS Module Design – Planning, Feb. 9, 2021

- Right now, **functionality exists for exercising and developing TP->TA->TC chain**
  - H. Siegel: HE localized trigger algorithm (Michel trigger, single APA TC, for testing in ProtoDUNE)
  - J. Sensenig: HE localized trigger algorithm (crossing muon trigger, cross-APA TC, for testing in ProtoDUNE)
  - T. Berera: LE extended trigger algorithm (SNB, cross-APA TC, for testing with simulation; could also try in ProtoDUNE, with some prescaling probably)
- Current version of DS system will be updated for:
  - Refined data format (TP, TA, TC, TD) – L. Arnold
  - Improved nomenclature – D. Kalra
  - Addition of “simple” MLT – Help welcome, please email [GK](#)
  - Addition of “TS CF” feeding “simple” MLT – L. Arnold, with input from UD (J. Brooke); this will also serve as a more advanced trigger emulator for minidaq
- Need additional help with testing ProtoDUNE TPC data input to the module (functionality exists for feeding in csv file; useful for “offline” testing mode and efficiency studies in the near term) - Please email [GK](#)
- Help welcome with implementing and testing PDS TP, TA, TC, TD – Please email [GK](#)
- Goal: Working version of DS chain from TP to TD, capable of receiving EXT triggers and a reduced set of specialized self-TPC triggers, for integrating in the appfwk by March 1.