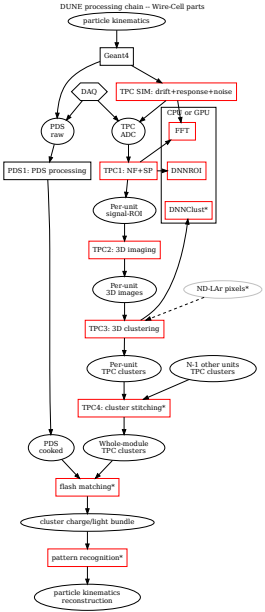
Wire-Cell facets of DUNE processing chain

Focus on ProtoDUNE and DUNE Far Detector

Brett Viren

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Conceptual overview, Wire-Cell facets only.

- Red indicates Wire-Cell Toolkit software.
  - Edge data may be file, `art::Event` or WCT data flow graph objects.
  - A lot of flexibility in choosing edge forms.
- First half of graph is for 1 detector “unit” (APA or CRP).
  - Latter half merges across all detector “units”.
- TPC1 = noise filter (NF) and signal processing (SP).
- A node marked with asterisk * is not yet in place.
  - Porting from MicroBooNE Wire-Cell “prototype”.
    - ★ In progress: TPC clustering, flash matching.
    - ★ Future: pattern recognition.
  - Expected new development:
    - ★ DNNClust AI/ML may replace clustering heuristics.
    - ★ Stitching needs novel algorithm development
    - ★ Per-unit flash-matching may precede stitching.
    - ★ WCT clustering, etc likely applicable to ND-LAr pixels.