

Sep 10, 2026 Overview of SBND WireCell Effort

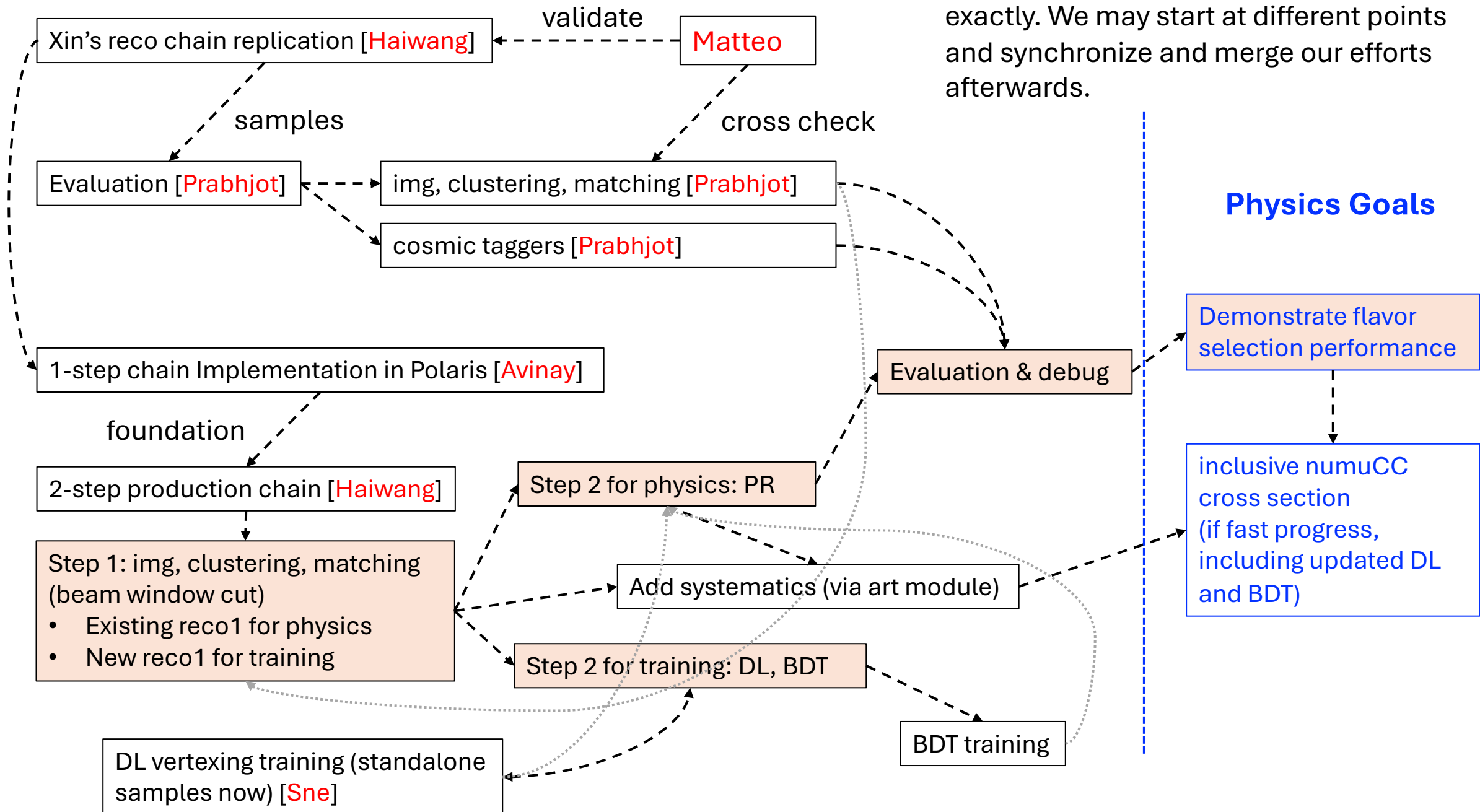
GOALS in next couple of months, no later than early Dec (the next collaboration meeting):

1. baseline: demonstrate high-performance (efficiency, purity) numuCC and nueCC selections
2. aspirational: demonstrate an inclusive numuCC cross section using a relatively small sample (contingent upon the reco & selection performance)

Key steps:

- ❖ replication of Xin's reco chain
- ❖ evaluation of performance --> data/MC consistency check, debug & improvement
- ❖ production for
 - ❖ Central value samples (evaluation and debug)
 - ❖ Training samples for deep learning vertexing and BDT flavor taggers (current using MicroBooNE weights)
 - ❖ Systematics (required in a physics analysis)
- ❖ DL vertexing and BDT re-training and evaluation
- ❖ Physics analysis

The actual workflow may not follow this exactly. We may start at different points and synchronize and merge our efforts afterwards.



Sample Request

- New G4+Detsim+Reco 1
 - BNB MC 500k
 - special nueCC 100k
- These are for our DL training
- @Prabhjot and @Avinay, could you please take care of this?
 - workflow/software identical to Gen2 samples
 - communication with leadership if needed
 - production management
 - file transfer to or run production in Polaris