

# OpFlash to WCT/BEE

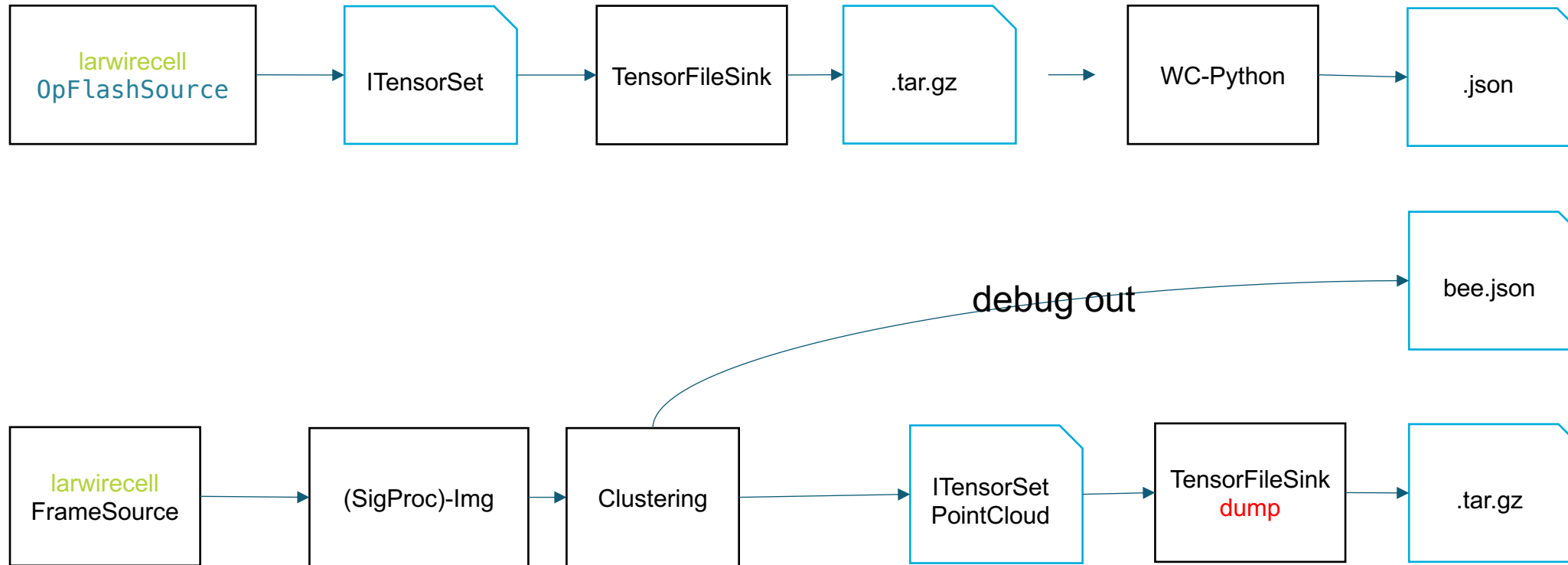
Haiwang

2024-04-25

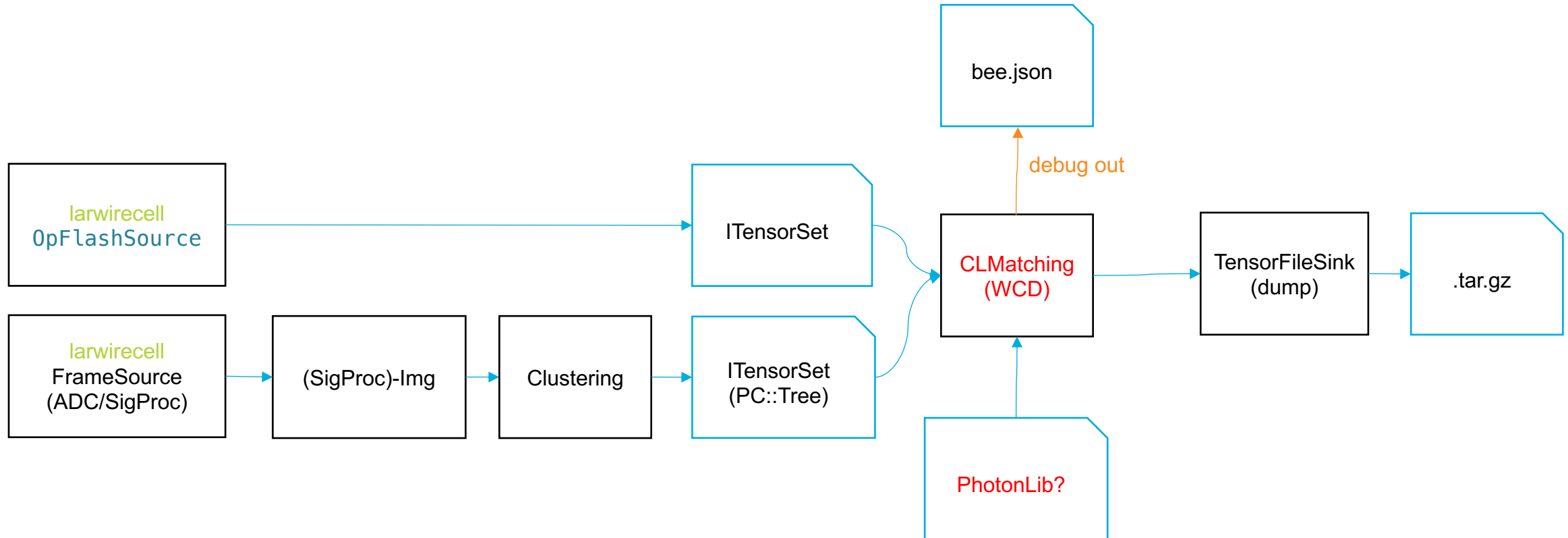
# WCP charge-light matching

- alg. in WCP: ask Xin
  - `prod-wire-cell-matching-nusel.cxx`, `ToyMatching.cxx`
    - `calculate_pred_pe`
    - `tpc_light_match`
- in: charge:
  - WCP: `PR3DCluster`
    - `points -> voxel_id -> charge`
  - WCT: `ITensorSet -> PointCloud::Tree`
- in: light
  - WCP: `Opflash`
    - `PE[32]`, `PE_err[32]`, `time`, etc.
- out: `vector<FlashTPCBundle*>`
- img-clustering cfg: Ewerton
  - `Img: /exp/dune/app/users/ebatista/ToHaiwang/latest-imaging-cfg-sbnd`
  - Need `SigProc` part
- photon library: Lynn
  - WCP: `std::vector<std::list<std::pair<int, float>>> library;`

# From previous talk



# Plan



# To-do

- Merge “apply-pointcloud” (porting branch) to main
  - Add ITensorSetFanin
  - Review BV’s new dev yesterday, **working?**
- Make a release for WCT
  - Test Sim/SigProc/Img
- Make a PR for larwirecell
- Complete a component skeleton in WCD
  - <https://github.com/WireCell/wire-cell-dev>
  - dump BEE
  - actual C-L Matching alg.
- Initial configuration for SBND



# Reco 1.5 MC:

# imaging

```
wire-cell-imaging-lmem-celltree ./input_data_files/ChannelWireGeometry_v2.txt $input_celltree $n -d1 -s2
```

# clustering, c-l matching

```
prod-wire-cell-matching-nusel ./input_data_files/ChannelWireGeometry_v2.txt imaging_$input2.root -d1
```

# Recno 2.0 Data/MC:

# track fitting

```
wire-cell-prod-stm ./input_data_files/ChannelWireGeometry_v2.txt $wcreco2_input_celltree $nn -d0 -o0 -g2
```

# 3D PatRec

```
wire-cell-prod-nue ./input_data_files/ChannelWireGeometry_v2.txt $wcreco2_input_celltree $nn -d0
```