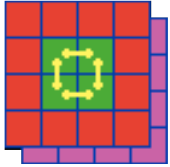


TileCal receivers (1)

- ◆ **LAr receivers will be built by Pittsburgh.**
 - ▼ **Now confirmed by US DoE.**
- ◆ **Pittsburgh would also like to build TileCal receivers.**
 - ▼ **Only sensible solution — very similar problem, they have expertise, etc.**
 - ▼ **They need to make a proposal to DoE (*even though we pay*).**
 - ▼ **They need a specification for the signal-handling.**
 - + **Suggestion is that *we* write it, with help from TileCal Rio group.**
- ◆ **Design criteria:**
 - ▼ **As similar to LAr as possible, both electrically and mechanically.**
 - + **Use same crates, controls, infrastructure.**
 - ▼ **Avoid summing of trigger-tower signals.**



TileCal receivers (2)

◆ Some design issues:

- ▼ Use of patch panels to make input layout more like LAr.
- ▼ Can muon LVL1 signals use ‘our’ cables?
 - + Additional patch-panel complication balanced by use of 16-pair cables (same as LAr), fewer cables overall.
- ▼ Specification of re-ordering ‘interconnect’ boards.
- ▼ Do we want a facility to view analogue signals, like LAr?
- ▼ Pulse-handling:
 - + Input coupling, impedance, etc.
 - + Do we need to reshape pulses? If so, what shaping time?
 - + Gain values and range needed for conversion to E_T .
- ▼ Number of modules, number of channels per module.