

NuMI/MINOS Design Decisions

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Decisions – MINOS Detector

- Near Electronics : Production channel count
 - De-Muxing : ~\$600k No
 - Additional test should be performed (PMT + elec)
 - Reasonable integration solution exists
 - Partial de-muxing can be considered (but should deliver answer by end of February)
 - Dedicated CalDet channel : ~\$430k No
- Far DAQ Upgrade for higher bandwidth
 - Upgrade FPGA firmware in VARC to perform local trigger (\$0) Yes
- M64 base termination (add Cap) No

Decisions – NuMI Beam

- Horn
 - Add fiducial cross-wire (\$50k) Yes
- Target, Baffle & support module
 - Baffle aperture : circular (r=5.5mm) Yes
 - Baffle length :1.2m as baseline ???
 - Study by BSpAG of shortening length then make final decision by March
 - Baffle and target on same module Yes?
 - If separate modules,
cost = \$250k + engineering > \$350k

Decisions – NuMI Beam

- Semi Energy Beam Configuration

- Maximum travel range of Target/Baffle module

- Semi-ME beam ($z \sim 2.7\text{m}$) with
an additional cost = \$200k

Yes?

- HE conf. can be obtained by ~ 1 week down time

- Semi-HE option ($z \sim 4\text{m}$) needs stronger justification since will incur significant cost increase and schedule delay (substantial redesign & additional engineering $\sim \$\text{M}$ needed)

- Decay pipe extension

???

- Discuss 4 options from Sacha's table