

# X-ARAPUCA MODULES

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# DESIGN CONVERGENCE

- Take advantage of the design efforts led by Paul Debbins and Zach Rautio
- Committee for a comparative evaluation of the two designs towards a single integrated optimal design
- E. Alamillo, L. Paulucci, D. Pushka, I. Salehinia, E. Segreto (Chair)
- Ex-officio: C. Cattadori, R. Rivera, D. Warner, V. Zutshi
- The committee is seized of the charge and has access to the existing models
- Intense and sustained interaction with the design teams
- Recommendations expected at the end of this month

## PURCHASE OF ELEMENTS

- The 11/21 install will be the first outing of the integrated module
- The purchasing for that has to anticipate the integrated module where possible and be completed before November
- Purchasing for 4 Module-0 X-ARAPUCAs (2 membrane + 2 cathode) components will be done simultaneously
- If the 11/21 experience indicates any necessary changes they will be incorporated and the components for the rest of the modules will be ordered by beginning of December

# MODULE FABRICATION/ASSEMBLY

- Modules will be assembled at NIU
- Conservative estimate is 1.5 days per module
- Documented procedure for CERN team
- Assembly of Module-0 detectors (2 membrane + 2 cathode) will commence around 11/21
- The assembly of rest of the modules will be initiated no later than 2<sup>nd</sup> week of December

# MODULE DELIVERY

- Module delivery will commence towards the end of November
- It would be desirable to explore the full shipping/delivery landscape in a graduated fashion
- i.e. what we are shipping fully assembled (e.g. start with glass instead of filters)
- Conservative at the start and building on the shipping/delivery experience