

nHCAL Sept 23, 2025

- Welcome back
- Sept 24, Caroline & Daniel: preTDR v2.2 feedback
- Oct 10, ePIC General Meeting: nHCAL Physics Motivation
- Oct 10, PDR page turn
- Run through slides, list changes / goals
- Priorities for PDR:
 - Design matrix
 - ✓ Low energy neutrons (optimize R)
 - ✓ Low energy charged particles (add initial scint)
 - ✓ Tile light collection / SiPM placement
 - ✓ Mu/pi separation + MIP signals
 - ✓ Hybrid (progressive R=scint/abs ratio) for E res
 - ✓ Thickness of initial scintillator
 - Geometry (near beam pipe, near outer ring)
 - Updated envelope, settle on total length
 - ...

Physics impact → Design parameter↓	σ_E/E	Eff	μ/π sep.	λ_{int}
Gross length	X	X		
Tile configuration	X	X		
Z-layer readout	X		X	
Sampling fraction, absorber/scintillator ratio				X
Absorber material	X			X