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# CEPC Calorimeter Options: Input Materials (Template)

Name (Affiliation)

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# Performance

Items	Priority	Results / Status	Remarks
Boson Mass Resolution	A		BMR < 4%
Intrinsic EM/hadronic energy resolution	A		
Separation power			gamma/gamma, gamma/hadron, hadron/hadron
Lepton ID in jets			
Timing capability			
$\pi^0$ reconstruction			
Pile-up at Z-pole			

- Priority/importance for performance requirements: (A) must-have; (B) plus; (C) not essential

# Cost

Cost table template for ECAL

Parameter Name	Barrel	Endcaps (x2)	Sum
Inner Radius for ECAL	1900 mm	400 mm	NA
Length for barrel; Outer radius for endcap	6100 mm	1900 mm + $24X_0$	NA
Longitudinal Depth	$24X_0$ (Thickness depends on each option)		NA
Modularity	#modules in phi, #rings along Z	Assuming ideal geometry if no design?	NA
Material Volume (m <sup>3</sup> )			
Readout channels			
Power dissipation (kW)			
Cost: sensitive materials			
Cost: electronics			

- Please also consider to indicate in extra or supporting materials
- Unit cost for key components and materials
  - References for unit cost or estimates
  - Uncertainty or risks if applicable

# Cost

Cost table template for HCAL

Parameter Name	Barrel	Endcaps (x2)	Sum
Inner Radius for HCAL	1900 mm + $24X_0$	400 mm	NA
Length for barrel; Outer radius for endcap*	6100 mm	1900 mm + $24X_0 + 6\lambda_I$	NA
Longitudinal Depth	$6\lambda_I$ (Thickness depends on each option)		NA
Modularity	#modules in phi, #rings along Z	Assuming any ideal geometry if no design?	NA
Material Volume (m <sup>3</sup> )			
Readout channels			
Power dissipation (kW)			
Cost: sensitive materials			
Cost: electronics			

\* Endcaps encompass barrel

- Please also consider to indicate in extra or supporting materials
- Unit cost for key components and materials
  - References for unit cost or estimates
  - Uncertainty or risks if applicable

# Technical readiness level

- Status and plans of simulation studies and R&D (a table template)
- Person power

Category	Status	Design 1	Other Alternative Design (if any)
Technical Readiness Level	Full Simulation (system level)		
	Full Simulation (module level)		
	Prototyping R&D (common)		
	Prototyping R&D (modules, units)		