

## Status



- The adjustment of the chapter structure finished.
  - The new outline is shown in right figure.
  - Some updates are still missing, including the latest BG results using latest CEPCSW version, the new stress analysis of the beampipe with latest supporting tube design...
- Keep current baseline design of Ref-TDR
  - Change of the shielding will be done in future

Chapter	3 Ma	chine Det	ector Interface and Luminosity Measurement	
3.1	Introdu	duction		
3.2	Key components			
	3.2.1	Central b	eam pipe	
		3.2.1.1	Introduction	
		3.2.1.2	Mechanical design	
		3.2.1.3	Thermal analysis	
	3.2.2	Final foc	using system and cryogenic module	
3.3	Beam i	Beam induced backgrounds		
	3.3.1	Introduct	ion	
		3.3.1.1	Sources of the beam induced backgrounds	
		3.3.1.2	Simulation steps	
	3.3.2	Experien	ces at BEPCII/BESIII	
		3.3.2.1	Introduction	
		3.3.2.2	Beam background experiments	
		3.3.2.3	Beam background simulation	
	3.3.3	Mitigation methods		
		3.3.3.1	Collimators and Masks	
		3.3.3.2	Shielding	
3.4	Lumin	uminosity measurement		
	3.4.1	Introduct	ion	
	3.4.2	Fast lumi	inosity monitor	
	3.4.3	Beam position monitor		
	3.4.4	Design of	f LumiCal	
		3.4.4.1	Acceptance	
		3.4.4.2	Detecting Radiative Bhabha events	
		3.4.4.3	LumiCal detector simulation	
		3.4.4.4	Systematic uncertainties on integral luminosity measurement	
3.5	Cost .			
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